

LAKSHYA

CURRENT AFFAIRS

MAY 2024



India-France Conducted Exercise Shakti in Meghalaya

Shompen Tribe Casted Vote for the First Time

Cyclone "Remal" Touched Odisha, Assam, and West Bengal

Indian Army Officer, Major Radhika Sen Honoured by UN for Gender Advocacy





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History and Culture

PATACHITRA PAINTING



The first-generation women patachitra artists from the village of Naya in West Bengal have gained worldwide recognition and sold their work online, inspiring future generations to continue in the profession.

Aspect	Details
Definition	Patachitra, or Pattachitra, refers to traditional cloth-based scroll paintings from Odisha and West Bengal in eastern India.
Origin	Believed to have originated in 12th century.
Etymology	In Sanskrit, "Patta" means "cloth" and "Chitra" means "picture".
Characteristics	Known for intricate details and mythological narratives, as well as folktales. Most paintings depict stories of Hindu deities.
Historical Context	One of the ancient artworks of Odisha, originally created for ritual use and as souvenirs for pilgrims to Puri and other temples in Odisha.
Bengali Narrative Art	In Bengal, patachitras served as visual aids during the performance of songs.

Making Process

- **Canvas Preparation:** Cotton sarees are layered with **tamarind paste and coated with clay powder**. Traditionally, cotton canvas was used; now, both cotton and silk are used.
- **Painting Process:** After the canvas is sturdy, colours are applied directly without initial sketches. The borders of the painting are completed first.
- **Materials:** Colours are obtained from natural sources such as lamp soot and powdered conch shells.

KUTCH AJRAKH

- The **Controller General of Patents, Designs, and Trademarks (CGPDTM)** has recently granted the Geographical Indication (GI) certificate to the traditional artisans of '**Kutch Ajrakh**' from the **vibrant region of Kutch in Gujarat**.
- **Kutch Ajrakh** is a **textile craft** deeply embedded in Gujarat's cultural heritage, **particularly in the regions of Sindh, Barmer, and Kutch**. Its legacy spans millennia, reflecting rich traditions and artistic expression.

Aspect	Details
Craft Process	Ajrakh involves meticulous hand-block printing on treated cotton cloth , resulting in intricate designs infused with rich symbolism and history.
Etymology	"Ajrakh" originates from 'Azrak', meaning indigo , a prominent dye used to achieve a bluish effect in the prints .
Colour Symbolism	Traditionally, Ajrakh prints feature three colours: <ul style="list-style-type: none"> • Blue symbolising the sky, • Red symbolising the land and fire, • White symbolising the stars.
Historical Introduction	Introduced over 400 years ago to the region by Sindhi Muslims .
Usage by Communities	Nomadic pastoralists and agricultural communities like the Rabaris, Maldharis, and Ahirs incorporate Ajrakh-printed cloth into their attire, such as turbans and lungis.

GREAT PYRAMID OF GIZA



A recent discovery of a mysterious structure buried beneath the **sands near the iconic Great Pyramid of Giza** may change our perception of these ancient structures.

Feature	Details
Name	Great Pyramid of Giza, Great Pyramid, Great Pyramid of Khufu
Location	Giza plateau, five miles west of the Nile River, near Cairo, Egypt
Builder	Khufu (Cheops), the second king of Egypt's 4th dynasty (c. 2575–c. 2465 BCE)
Construction Period	Began around 2580 BC, completed around 2560 BC
Historical Significance	The tallest human-made structure in the world until the Eiffel Tower's completion in 1889
First Modern Excavation	1880 by Sir William Matthew Flinders Petrie, British archaeologist

KADARS

The recent death of a **Kadar tribesman in Tamil Nadu's Anamalai Tiger Reserve** due to an elephant attack has left the **Indigenous community and conservationists in shock**, as the Kadars have been known to co-exist with wild elephants for ages.

Community Name	Kadars
Location	Along the hilly border between Cochin in Kerala and Coimbatore in Tamil Nadu
Lifestyle	Traditional forest dwellers relying on forest produce for sustenance
Agriculture Practice	Do not practice agriculture; build shelters thatched with leaves and shift locations as required
Food Preference	Prefer rice obtained through trade or wages over food gathered on their own
Economic Activities	Specialised collectors of honey, wax, sago, cardamom, ginger, and umbrella sticks for trade
Belief System	Believe in a symbiotic relationship with nature, coexistence of Kadar and Kaadu (forest)
Sustainability Practices	Have traditional protocols for sustainable use of forest resources ; allow time for regeneration
Population Estimate	Approximately 2,000 individuals in the early 21st century
Language	Speak Dravidian languages of Tamil and Kannaḍa
Religious Practices	Worship jungle spirits own kindly creator couple, and local forms of Hindu deities
Vulnerable Group Status	Listed as a Particularly Vulnerable Tribal Group (PVTG) in Kerala, not in Tamil Nadu



People of Kadar Tribe

VIRUPAKSHA TEMPLE

Recently, **torrential rains** caused a portion of the **Virupaksha temple in Karnataka** to collapse.

Aspect	Description
Name	Virupaksha Temple
Deity	Dedicated to Lord Virupaksha, a form of Lord Shiva
Location	Hampi, Vijayanagara district, Karnataka, India
Situated	Southern bank of the Tungabhadra River
History	<ul style="list-style-type: none">Established in the 7th century ADOne of India's oldest functioning temples
Expansion	<ul style="list-style-type: none">Originally a small shrine, it expanded during the Vijayanagara reignAdditions made during the Chalukyan and Hoysala eras
Architecture	South Indian architectural style
Features	<ul style="list-style-type: none">Sanctum sanctorumPillared halls, including one with 100 pillarsAntechambers, grand gopuramsSmaller shrines, temple kitchen, administrative offices
Gopurams	<ul style="list-style-type: none">Three gopuramsLargest: Eastern gopuram (nine storeys, 50 meters tall) <p>The other two: Smaller gopurams on the inner east and inner northern sides</p>
Sculptures	<ul style="list-style-type: none">Beautiful sculptures of Hindu Gods adorn outer faces of the gopurams
Physics and Mathematics	<ul style="list-style-type: none">Utilized principles like Rectilinear Light Theory, pinhole camera effectMathematical concepts: Fractals, geometry, complex mathematics, Fibonacci number sequence
Unique Feature	An inverted pinhole image of the tower is present on the inner wall

Environment and Geography

CYCLONE 'REMAL' MAKES LANDFALL IN COASTAL WEST BENGAL, ASSAM AND ODISHA



- The name of tropical cyclone '**Remal**' that formed in the **Bay of Bengal** was chosen by **Oman** which means '**sand**' in **Arabic**.

About Tropical Cyclones

- These are rapidly rotating storms that are non-frontal low-pressure systems originating over tropical oceans.
- Known as **Cyclones (Indian Ocean)**, **Hurricanes (Atlantic)**, **Typhoons (Western Pacific and South China Sea)** and **Willy-willies (Western Australia)**.
- They get energy from condensation in towering cumulonimbus clouds around the
- storm centre (eye).
- Eye is a region of calm with subsiding air.
- When they reach land (landfall), moisture supply stops and the storm dissipates.

Favourable Conditions for Tropical Cyclones

- Sea surface with temperature higher than 27°C.
- Presence of Coriolis force.
- Tropical cyclones are not formed near the equator due to the absence of Coriolis force.
- Small variations in vertical wind speed.
- A pre-existing weak low-pressure area.

Naming of Tropical Cyclones

- The World Meteorological Organisation (WMO), a specialized agency of the UN, has adopted a cyclone naming process.
- A list of cyclone names is prepared by the Tropical Cyclone Regional Body (TCRB) responsible for an ocean basin.
- WMO/ESCAP Panel on Tropical Cyclones, one of five TCRBs assigns names to tropical cyclones in North Indian Ocean (Bay of Bengal and Arabian Sea).
- Its members include Bangladesh, India, Maldives, Myanmar, Pakistan, Sri Lanka, Oman, Thailand, Iran, Qatar, Saudi Arabia, United Arab Emirates and Yemen.
- All member countries provided a list of 13 names each which are used sequentially.

INDONESIA: TSUNAMI ALERT ISSUED AS MOUNT RUANG VOLCANO ERUPTS 5 TIMES IN A ROW



- **Indonesia's Mount Ruang** experienced multiple eruptions, triggering a tsunami alert and leading to the evacuation of over 11,000 people.
- The volcano had at least five large eruptions over 24 hours, prompting authorities to raise the alert to the highest level.
- A 4 km radius around the eruption site was restricted, and all activities were prohibited.
- Residents in the nearby regions, totaling at least 800 people, were evacuated due to the volcanic activity.
- Tourists and others were advised to stay at least 6 kilometers away from the volcano.

- The volcanic activity was linked to recent earthquakes, increasing the risk of further eruptions.

NEW TARDIGRADE SPECIES NAMED AFTER CHANDRAYAAN-3 MISSION



- A new marine tardigrade species named **Batillipes chandrayaan** was discovered off the **southeast coast of Tamil Nadu** and **named after the Chandrayaan-3 moon mission**.
- The discovery was made by researchers at the Cochin University of Science and Technology (Cusat).
- This species is the third marine tardigrade scientifically described from Indian waters and the second from the east coast.
- Marine tardigrades, also known as ‘water bears,’ are microscopic animals that are highly resilient and have survived mass extinctions.
- They are typically measured in micrometers and are found in all oceans.
- The newly discovered species, *Batillipes chandrayaan*, was found in intertidal beach sediments at Mandapam in Tamil Nadu and is similar in size to other tardigrades.
- Marine tardigrades have received less attention compared to their terrestrial counterparts.

GI Tags



- The traditional artisans of ‘**Kutch Ajrakh**’ have been honored with a Geographical Indication (GI) certificate, acknowledging their rich cultural heritage.
- **Ajrakh is a revered textile craft in Gujarat**, involving **hand-block printing on cotton cloth** with intricate designs and historical symbolism.

ASTRONOMERS FINALLY DETECT A ROCKY PLANET WITH AN ATMOSPHERE



Discovery of Exoplanet 55 Cancri e

- The exoplanet **55 Cancri e**, also known as **Janssen**, is a **super-Earth with a rocky composition**, larger than Earth but smaller than Neptune.
- It orbits very close to its host star, completing an orbit every 18 hours, resulting in extreme surface temperatures of about 3,140 degrees Fahrenheit.

Atmosphere and Composition

- Infrared observations from the James Webb Space Telescope suggest the presence of an atmosphere on 55 Cancri e, potentially rich in carbon dioxide, carbon monoxide, water vapor, and sulfur dioxide.
- The exact composition and thickness of the atmosphere remain uncertain, with possibilities ranging from Earth-like thickness to even thicker than Venus’ dense atmosphere.

Significance of Atmosphere

- The presence of an atmosphere on rocky exoplanets like 55 Cancri e is crucial for various planetary processes, including temperature regulation, protection from radiation, and potential habitability.

Planetary Characteristics

- 55 Cancri e is likely tidally locked, always presenting the same side to its host star, similar to the moon’s relationship with Earth.
- The planet is located about 41 light-years away from Earth in the constellation Cancer, within the Milky Way galaxy, making it an inhospitable destination.

POLLING STATIONS CONSTRUCTED IN SONAI RUPAI WILDLIFE SANCTUARY, ASSAM

- The **National Green Tribunal (NGT)** in **Assam** has requested details from the Chief Secretary regarding officers who allowed construction activities in a **wildlife sanctuary and reserve forest**, violating the **Forest (Conservation) Act, 1980**.



- Various illegal constructions were found in the **Sonai Rupai Wildlife Sanctuary and Charduar Reserve forest, including schools, a tea garden, a road, wells, and polling stations**, leading to FIRs against those responsible.
- The NGT highlighted the lack of action by the Principal Chief Conservator of Forest (PCCF) in preventing these illegal activities since 2017 and demanded an explanation from the State government.
- The Ministry of Environment, Forests and Climate Change was directed to submit a counter-affidavit detailing actions taken against officers involved in the illegal constructions and steps to remove them, emphasizing the restoration of the forest area.

SUNDARBANS MANGROVE ECOSYSTEM UNDER THREAT FROM AIR POLLUTION

- The **Sundarbans mangrove ecosystem** is under threat from **air pollution**, primarily **black carbon and soot particles** originating from **Kolkata and the entire Indo-Gangetic Plain region**.



- Pollutants from various sources, including biomass burning and local boat emissions, contribute to high levels of suspended particulate matter in the Sundarbans.

Impact on Ecosystem

- Acidic components of pollutants lead to the generation of reactive oxygenated species (ROS) in the presence of heavy metals, posing a severe threat to mangrove cells.
- Prolonged exposure to heavy metals compromises the resilience of mangroves, causing cellular damage.

Role in Climate Change Mitigation

- The Sundarbans mangrove ecosystem plays a crucial role in climate change mitigation by absorbing greenhouse gases and having a high potential for carbon absorption.
- Pollution-induced stress weakens the ecosystem's resilience, jeopardizing its equilibrium and ability to withstand calamitous events.

PLACES IN NEWS



- India protests Chinese road construction at Shaksgam Valley in Pakistan-occupied Kashmir.

About Shaksgam valley:

- It is a part of the territory of India, strategically located in **Jammu and Kashmir**.
- Through the China-Pakistan boundary agreement of 1963, Pakistan unlawfully ceded the area of Pakistan.



Netherlands (Capital: Amsterdam):

- 12th India-Netherlands Foreign Office Consultations were held in The Hague, Netherlands.

Political features:

- Located in north-western Europe, also known as Holland.
- Land Boundary: Belgium (south) and Germany (east).
- Water Bodies: North Sea (north and west).



Nepal has decided to introduce a new currency note featuring Indian territories:

- Nepal cabinet has recently approved printing of new denominations of 100 of Nepalese currency featuring a map that includes Indian territories of Limpiyadhura, Lipulekh, and Kalapani.



Ghana (Capital: Accra):

- India-Ghana agreed to strengthen trade ties at the 4th joint trade committee meeting in Accra.

Political features:

- West African country on the Gulf of Guinea.
- Land Border: Burkina Faso (north), Togo (east), Côte d'Ivoire (west).
- Maritime border: Atlantic Ocean (south).

Geographical features:

- Major rivers: Volta, Tano, Pra, etc.
- Highest peak: Mount Afadjato.
- Greenwich Meridian passes through Ghana.



Shinku La tunnel:

- Shingo La (also known as Shinku La)** is a mountain pass in India, on the state boundary between **Ladakh and Himachal Pradesh**.
- Border Road Organisation will soon commence the construction of the 4.1 -km long Shinku La tunnel.

About Shinku La tunnel:

- Once completed, this tunnel will become the **world's highest tunnel at 15,800 ft**, surpassing **Mila tunnel in China**.
- It will provide all-weather connectivity from **Manali to Leh**.
- It is expected to streamline the transportation of heavy machinery to strategic locations such as Kargil, Siachen, etc.

CCMB SCIENTISTS FIND ARMoured SAILFIN CATFISH HAS SPREAD TO 60% OF WATER BODIES OF EASTERN GHATS



- Scientists at **CSIR-CCMB** identified the spread of the invasive **armoured sailfin catfish** in **60 water bodies of the Eastern Ghats**, causing **damage to fishing nets and the ecosystem**.

- The catfish was initially introduced for its appearance and algae-cleaning abilities but has since proliferated, threatening native species and livelihoods.

eDNA-Based Quantitative PCR Assay

- Researchers developed a unique 'eDNA-based quantitative PCR assay' to detect the presence and spread of invasive species like the armoured sailfin catfish.
- This method involves collecting environmental DNA from water samples to specifically identify the DNA of the catfish, enabling early detection and mapping of its distribution in water bodies.

Advantages of the eDNA Approach

- The eDNA approach is reliable, accurate, cost-effective, and suitable for large landscapes like the Eastern Ghats water bodies.

- It allows for testing multiple water bodies simultaneously, aiding in the management of invasive species and the preservation of ecosystems.

SCIENTISTS FLAG MASS SEA ANEMONE BLEACHING OFF AGATTI ISLAND



- **Sea anemone bleaching** has been observed off the **Agatti island in the Lakshadweep group of islands** for the first time, raising concerns about the local ecological system's health.
- The consequences of sea anemone bleaching extend beyond aesthetics, making them more susceptible to diseases and increasing mortality due to the loss of symbiotic algae, their primary energy source.
- Scientists at the ICAR-NBFGR have been working on sea anemones for years, aiming to propagate them under captive conditions for the aquarium trade and livelihood promotion of island women.
- Despite efforts, sexual reproduction has not been observed in captivity among sea anemones, leading to propagation using the bifurcation method for distribution to beneficiaries for rearing in community aquaculture units.
- Urgent comprehensive conservation efforts are needed in the Lakshadweep to address sea anemone bleaching, highlighting the importance of global emissions reductions to mitigate climate change and safeguard marine habitats.

AURORA SEEN OVER LADAKH'S HANLE AS INTENSE SOLAR STORM HITS EARTH



Aurora Borealis and Aurora Australis Display

- Intense solar storms caused vibrant displays of aurora borealis and aurora australis worldwide.
- **Ladakh's Hanle** witnessed a rare auroral red arc during the event.
- Aurora arcs, fixed in color and static, are unique phenomena during geomagnetic storms.

Global Observations of Auroras

- Russia, Australia, and Germany also experienced the auroras due to solar particles interacting with Earth's magnetic field.
- Russia saw shimmering aurora borealis curtains, Germany witnessed an otherworldly glow, and Australia enjoyed the vibrant aurora australis.

Solar Activity and Coronal Mass Ejections (CME)

- A coronal mass ejection (CME) from the sun caused the intense solar storm leading to the auroras.
- Five CMEs, the biggest eruptions on the sun, were expected to pass by Earth, causing the spectacular light displays.
- Scientists monitored sunspot AR3664, home to the CMEs, as it grew wider and resembled the historic Carrington sunspot.

About Aurora

- Multi-coloured lights appear in the upper atmosphere (ionosphere) over the Polar Regions and are visible from locations in the middle and high latitudes.
- Colours can be blue, red, yellow, green, and orange.
- Auroras in the Northern Hemisphere are called aurora borealis and aurora australis in the Southern Hemisphere.
- Caused by the interaction of solar wind with oxygen and nitrogen gas in the atmosphere.

SURVIVAL CHALLENGES FOR KANWAR LAKE: BIHAR'S ONLY RAMSAR SITE



- The **Kanwar Lake in Bihar**, known as ‘**Kabartal**,’ is deteriorating due to **encroachment and drying, impacting bird habitats**.
- The lake, a **Ramsar site**, is crucial for **both migratory and local birds**, but its water levels have been decreasing, posing a threat to the bird population.

Urgent Conservation Measures Needed

- Experts emphasize the urgent need for conservation efforts to save Kanwar Lake, highlighting the decline in water levels and bird populations as alarming signs.

Monsoon Impact on Lake

- The lake’s water levels shrink in summer but are replenished in the monsoon, indicating that the lake’s survival depends on consistent rainfall during this period

Lack of Conservation Efforts

- Despite being declared a Ramsar site, no significant efforts have been made in the four years to save Kanwar Lake, raising concerns about its future.

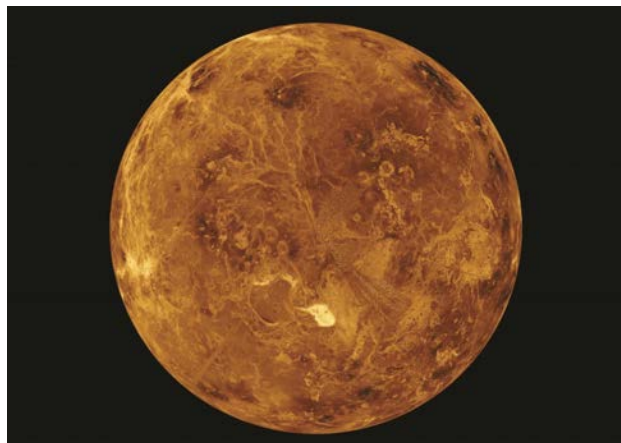
INDIA’S FIRST RESEARCH TESTBED TO STUDY NOR’WESTERS GETTING READY



- A multi-crore rupees research testbed facility is being developed to track **norwester in east and northeast India**, aiming to study **thunderstorms from formation to propagation**.
- The facility will be located in **Odisha** and cover areas adjoining **West Bengal, Odisha, and Jharkhand**, with a **control center in Chandbali**.
- The testbed will deploy drones, mobile vans, and high-end instruments to track thunderstorms, aiding in timely predictions and issuing nowcast warnings.
- Plans include sensitivity studies, data collation by IMD, and deployment of India’s tallest meteorological flux tower at 100 meters.
- The facility will complement existing observational mechanisms, house high-end instruments worth over ₹25 crore, and improve the region’s weather observation network.

- The goal is to issue warnings with better lead time, forecast impacted areas accurately, and enhance preparedness in eastern India.

VENUS IS LOSING WATER FASTER THAN PREVIOUSLY THOUGHT



- **Venus**, our neighbouring planet, **once had as much water** as Earth does today, indicating it may have been habitable in the past.
- Understanding how, when, and why **Venus lost its water** is crucial for planetary scientists to comprehend habitability factors on planets.
- The solar system has a habitable zone where planets can sustain liquid water on their surface, with Earth in the middle, Mars on the colder side, and Venus on the hotter side.
- A new study in May 2024 revealed a previously unnoticed water removal process on Venus, potentially explaining the mystery of more water loss than predicted by scientists.
- The need for further scientific exploration and missions to Venus is emphasized to gather more data on its atmosphere and the processes leading to water loss, suggesting a future Venus upper atmosphere mission similar to MAVEN at Mars could significantly enhance our understanding of terrestrial planets’ atmospheres.

About Venus

- Venus is the nearest to earth and 2nd from the Sun.
- It is the brightest planet in the night sky.
- It has no satellite of its own.
- Its atmosphere consists mainly of carbon dioxide, with clouds of sulfuric acid droplets.
- Unlike others, Venus and Uranus rotate from east to west.
- Venus, along with Mercury, Earth and Mars are called the inner planets (Terrestrial planets).

MADHYA PRADESH: PREHISTORIC ARTIFACTS ON FOSSIL WOOD DISCOVERED IN GHUGHUA



- Fossil parks serve as outdoor museums showcasing geological and paleontological treasures, including fossilized remains of prehistoric life like trees, plants, shells, and ancient creatures.

- A team of archaeologists from Ashoka University discovered prehistoric artifacts made from fossil wood at the **National Fossil Park in Ghughua, Madhya Pradesh**, suggesting ancient hunter-gatherers used fossilized tree trunks for tools.
- The recent discovery challenges the notion that our ancestors only used stone resources for tools, indicating they also utilized fossil wood.

Ghughua National Fossil Park

- Location: Dindori district, Madhya Pradesh.
- Landscape: Tropical dry deciduous.
- It was recognised as a National Park in 1983.

Key Features

- It has plants in fossil form that existed in India between 40 million and 150 million years ago.
- Notable discoveries include preserved fossils of woody plants (eucalyptus, date palm, neem, etc.), climbers, leaves, flowers, fruits, etc. and dinosaur egg fossils.

Defence and Military Exercises

SUPERSONIC MISSILE-ASSISTED RELEASE OF TORPEDO (SMART) SYSTEM



- The Defence Research and Development Organisation (DRDO) recently tested the **next-generation torpedo release system**.
- It is known as the **Supersonic Missile-Assisted Release of Torpedo (SMART) System**.
- Developed and designed by **DRDO**.
- The test launch occurred from a ground mobile launcher situated at **Dr APJ Abdul Kalam Island off the coast of Odisha**.

Key Features

Key Features	Details
Purpose	The missile-based mechanism aims to launch lightweight torpedoes capable of targeting submarines located hundreds of kilometres away , extending beyond conventional torpedo range.

Operational Use	Primarily utilised in situations where immediate action against enemy submarines is necessary and other assets are unavailable.
System Components	A canister-based missile system incorporates advanced subsystems, including two-stage solid propulsion and precision inertial navigation.
Payload	Carries an advanced lightweight torpedo missile and utilises a parachute-based release mechanism.
Validation of Mechanisms	This test has successfully validated various state-of-the-art mechanisms, such as symmetric separation, ejection, and velocity control.

HIGH MOBILITY ARTILLERY ROCKET SYSTEMS (HIMARS)



Recently, the Russian government released new footage alleging the targeting of two Ukrainian **High Mobility Artillery Rocket Systems (HIMARS)**, coinciding with the authorisation of a substantial increase in military aid for **Ukraine by the U.S.**

Description	Details
Type	Light, multiple rocket launcher.
Manufacturer	Manufactured by Lockheed Martin Corporation, a US-based security and aerospace company .

Purpose	Intended to engage and defeat artillery, air defence concentrations, trucks, light armor, personnel carriers, and support troop and supply concentrations.
Features	Air-transportable wheeled launcher mounted on a 5-ton Family of Medium Tactical Vehicles (FMTV).
	Can carry either a launcher pod of six rockets or one MGM-140 Army Tactical Missile System (ATACMS) with a range of 300 km (186 miles).
Preparation Time	There are less than 20 seconds for firing preparation; a full launcher load of six rockets can be fired within 45 seconds.
Tactical Maneuverability	After launching, the system moves away from the area swiftly to evade detection by enemy forces.
Crew Protection	The Increased Crew Protection cabin is equipped to shield the three-man operating crew from plume gases, rocket launch debris, and small arms.

TACTICAL NUCLEAR WEAPONS

- Amid escalating tensions, **Russia** has initiated tactical nuclear weapons drills as a cautionary measure directed towards Ukraine's allies.
- Tactical Nuclear Weapons (TNWs)** are distinct from "strategic" arms under US-Russian agreements, comprising **short-range options such as land-based missiles (with ranges less than 500 km) and air- or sea-launched weapons (with ranges less than 600 km).**
- TNWs represent the **least-regulated category of nuclear weapons** under arms control agreements and are prevalent in nuclear arsenals globally.

BOEING STARLINER



The upcoming **Atlas V rocket launch** will carry **two veteran astronauts aboard Boeing's Starliner crew capsule, marking the capsule's third test flight** and its first with astronauts on board. Starliner, built by Boeing, comprises a crew capsule and a service module for astronaut transportation into space.

Aspect	Details
Description	Starliner is a spacecraft designed to transport astronauts into space, launched by a rocket. It consists of a crew capsule and a service module.
Crew Capsule	<ul style="list-style-type: none"> Houses astronauts and can survive reentry for a safe return to the ground. Can accommodate up to seven astronauts.
Service Module	<ul style="list-style-type: none"> Contains essential equipment and systems for astronaut survival in space, including air and temperature control, water supply, sanitation, etc. Includes engines and fuel for spacecraft manoeuvres. Not reusable.
Dimensions and Reusability	Starliner is over 4 meters wide and can be reused up to 10 times with a turnaround time of six months.
Technological Features	<ul style="list-style-type: none"> Features a weldless structure. Equipped with wireless internet and tablet technology for crew interfaces.
Launch Vehicle	Can be placed atop an Atlas V rocket, operated by United Launch Alliance, a joint venture between Boeing and Lockheed Martin.
Purpose	<ul style="list-style-type: none"> Awarded contracts by NASA in 2014 to fly astronauts to the International Space Station (ISS). Aims to provide the U.S. with its own spacecraft to launch astronauts to space, reducing reliance on Russia's Soyuz rocket and capsule. In conjunction with SpaceX's Dragon crew capsule, Starliner will enable regular transportation of astronauts to and from the ISS. It is intended for alternating missions with SpaceX's Dragon capsule, each lasting up to six months, until the ISS is decommissioned in the next decade.

AIR INDEPENDENT PROPULSION (AIP) TECHNOLOGY



- AIP stands for **Air Independent Propulsion**. As submarines emerged, there arose a challenge in finding **effective propulsion methods underwater**.
- Traditional diesel-electric submarines **faced limitations, requiring frequent surfacing to charge batteries, resulting in a mere few days of underwater endurance**.

Aspect	Details
Problem with Traditional Submarines	Traditional diesel-electric submarines had to surface frequently for battery charging, offering only a few days of underwater endurance.
Historical Development	<ul style="list-style-type: none"> • In 1908, the Imperial Russian Navy launched the submarine Pochtovy, which used a gasoline engine powered by compressed air, functioning underwater. • AIP technology evolved from two main approaches: the use of a fuel for energy in an open-cycle system, and providing oxygen to an aerobic engine in a closed cycle.
Functionality	AIP systems typically generate electricity to power electric motors for propulsion or recharge the submarine's batteries.
Advantages	<ul style="list-style-type: none"> • Significantly increases underwater endurance, providing submarines with a strategic advantage. • Reduces noise levels, making submarines harder to detect.
Implementation	<ul style="list-style-type: none"> • AIP is often used as an auxiliary power source alongside traditional diesel engines for surface propulsion. • Can be retrofitted onto existing submarines by inserting a new hull section.

Power Generation	<ul style="list-style-type: none"> • A conventional power plant typically provides 3 megawatts maximum, while an AIP source offers around 10 percent of that. • In contrast, nuclear submarine propulsion plants are much greater, exceeding 20 megawatts.
Types of AIP	Open-cycle systems, Closed-cycle diesel engines, Closed-cycle steam turbines, Stirling cycle engines, Fuel cells.
DRDO's Development	<ul style="list-style-type: none"> • The Defence Research and Development Organisation (DRDO) is developing a fuel cells-based AIP System, unique for generating hydrogen onboard. • Operated in endurance mode and max power mode as per user requirements. • Developed by the Naval Materials Research Laboratory (NMRL) of DRDO.

FWD-200B



Flying Wedge Defence, an Indian defence and aerospace company, recently unveiled the FWD-200B, **India's first Indigenous bomber UAV aircraft**.

Feature	Specification
Type	Indigenous military-grade bomber UAV
First Indigenous Bomber	India's first Indigenous unmanned bomber aircraft
Designer and Manufacturer	Flying Wedge Defence and Aerospace Technologies, an Indian defence and aerospace company
Payload Capacity	100 kg
Classification	MALE (Medium-Altitude, Long-Endurance) Unmanned Combat Aerial Vehicle

Unmanned Aerial System (UAS)	Includes optical surveillance payloads and integrated with missile-like weapons for precision air strikes
Maximum Speed	370 kmph (200 knots)
Endurance Capacity	12 to 20 hours
Ground Control Station Range	200 km
Dimensions	6 metres long, 8-metre wingspan
Maximum Take-off Weight	498 kg
Operational Altitude	9,000 feet above mean sea level

HERMES-900

- The Indian Army and Navy are set to enhance their surveillance capabilities by acquiring **Hermes-900 drones**, also known as **Drishti-10**.
- These **next-generation Medium Altitude Long Endurance (MALE) unmanned aerial systems** offer over-the-horizon, persistent multi-mission capabilities.
- With a payload carrying capacity of **350 kg**, the Hermes-900 is well-suited for various tasks, including area dominance, intelligence gathering, and ground support.



GLIDE PHASE INTERCEPTOR (GPI) PROJECT

- The **Glide Phase Interceptor (GPI) Project** collaborates with **Japan and the U.S.** to develop a **hypersonic missile-intercepting system**.
- Hypersonic weapons travel **between 5 and 25 times the speed of sound**.
- Weapons travelling below these speeds are classified as **subsonic or supersonic**.
- At speeds above the **hypersonic range, atmospheric molecules disassociate into plasma, complicating control and communication**.
- Hypersonic missiles enter the glide phase after separating from boosters at the peak of their trajectory.
- During the glide phase, they use gravity to accelerate towards Earth.

- They perform a pitch manoeuvre to enter a flatter trajectory towards their target.



EXERCISE SHAKTI

India and France have commenced the 7th edition of the **India-France Joint Military Exercise SHAKTI in Umroi, Meghalaya**.

Exercise SHAKTI is a biennial training event alternating between **India and France**.

The last edition was held in France in November 2021.

Objectives of Exercise SHAKTI include:

- Achieving physical fitness.
- Refining tactical operations.
- Exchanging best practices.



EXERCISE 'TARKASH'

The **India-U.S. joint exercise** on coordinated operations in **urban counter-terrorism** contingencies will conclude in **Kolkata**.

Exercise Tarkash

Exercise	Details
Name	Indo-U.S. Joint Counter-Terrorism Exercise (Exercise Tarkash)
Edition	Seventh
Participants	Elite National Security Guard (NSG) and U.S. Special Operations Forces (SOF)

Start Date	April 22, 2024
Previous Edition	Conducted in Chennai in January 2023
Activities	Intense training and mock drills in urban counter-terrorism scenarios

Objective

- Build **functional relations and enhance interoperability** between the two special forces.
- Conduct coordinated counter-terror operations in urban contingencies.
- Improve bilateral cooperation between **India and the U.S. in combating terrorism in all its forms.**

The joint exercise included sharing best practices, tactics, techniques, and procedures.

Covered a wide spectrum of counter-terror operations in urban environments, including:

- Close quarter battle.
- Building intervention drills.
- Hostage rescue operations.



IGLA-S



The Army is poised to commence the reception of **additional Russian Igla-S very short-range air defense systems (VSHORAD)** by the end of May or early next month.

Name	Igla-S MANPADS
Developed By	Russia
Capabilities	<ul style="list-style-type: none"> • Hand-held defense system operable by individual or crew • Designed to bring down low-flying aircraft, identify, and neutralize air targets like cruise missiles and drones
Components	<ul style="list-style-type: none"> • 9M342 missile • 9P522 launching mechanism • 9V866-2 mobile test station • 9F719-2 test set
Functionality	Provides a comprehensive air defense solution
Range	500 meters to 6 kilometers
Altitude Coverage	Up to 3.5 kilometers
Missile Speed	400 meters per second
Deployment Time	13 seconds
Significance	Enhances India's air defense capabilities, especially in mountainous regions
Role	Last line of defense against enemy combat aircraft, helicopters, and UAVs in multilayered air defense

BULAVA MISSILE



The Russian President has strengthened the **country's military capabilities** by directing the incorporation of a new nuclear-capable missile, named the **Bulava, into the Russian military arsenal.**

Name	RSM-56 Bulava (NATO reporting name: SS-N-32)
Type	Submarine-launched intercontinental ballistic missile (ICBM)
Designer	Moscow Institute of Thermal Technology

Development Period	Late 1990s
Deployment	Designed for deployment on Russia's Borei-class submarines
Strategic Role	Core component of Russia's future strategic nuclear force
Features	<ul style="list-style-type: none"> • Three-stage solid-propellant missile • Launch mass: approximately 36.8 tonnes; throw weight: 1,150 kg • Length: 12.1 meters in launch container; diameter: 2 meters
Range	Maximum range of 8,300 km (5,160 miles)
Payload	Up to 10 multiple independently targetable re-entry vehicles (MIRVs)
Capability	<ul style="list-style-type: none"> • MIRVs capable of delivering nuclear warheads to different targets • Re-entry vehicles (RVs) equipped with in-flight maneuverability and re-targeting capabilities
Accuracy	Expected accuracy of around 250 to 300 meters

PORT OF CALL

Recently, **Spain has denied permission for an Israel-bound ship** carrying arms to make a stop at the **southeastern port of Cartagena**.

About Port of Call

A **port of call serves as an intermediate stop** for a ship during its scheduled journey, typically for cargo operations or the **transportation of supplies or fuel**. These ports originally developed as anchoring points on major sea routes, where ships would stop for refueling, provisioning, and other necessities. Over time, they evolved into commercial ports.

Characteristics

- **Examples:** Ports such as Aden, Honolulu, and Singapore are prime examples of ports of call.
- **Function:** They serve as refueling points, provisioning centers, and locations for cargo operations.
- **Development:** Originally serving as points for basic ship needs, they later developed into commercial hubs.
- **Also Known As:** Ports of call may also be referred to as ports of refuge. They are not typically part of a ship's regular itinerary but may be necessary due to various reasons, including:
 - ♦ Cargo operations (cleaning, repairs, or maintenance)
 - ♦ Stocking up on supplies (fuel, food, etc.)
 - ♦ Loading and unloading cargo
 - ♦ Unforeseen emergencies

ASMPA MISSILE

France has achieved a significant milestone in its defense capabilities with the successful testing of the updated **ASMPA supersonic missile**, designed to carry a nuclear warhead.

About ASMPA Missile

The **Air-Sol Medium Range (ASMP/ASMP-A)** is an **air-launched land-attack supersonic cruise missile equipped with a nuclear payload**. It serves as a crucial component of **France's nuclear deterrent force**.

Versions

- **ASMP:** Initially developed in 1986, the ASMP had a range of **80 to 300 km** and utilised the TN 81 warhead with a variable yield ranging between **100 and 300 kilotons of TNT**.
- **ASMP-A:** An upgraded version introduced into **French service in 2009**, it boasts an extended range of up to **500 km** and features a **new 300 kt thermonuclear warhead**.
- **ASMPA-R:** A renovated iteration of the ASMPA, the ASMPA-R project aims to enhance range capabilities and introduce further advancements in its warhead technology.

Features

- **Dimensions:** The ASMPA missile measures 5.38 meters long, has a body diameter of 0.38 meters, and has a launch weight of 860 kg.
- **Guidance System:** It is guided by an inertial navigation system, likely supplemented by terrain mapping and a pre-programmed onboard computer.
- **Propulsion:** The missile features a solid-propellant engine that ignites after release from the aircraft. Upon ignition, it accelerates to Mach 2.0 within five seconds, after which the booster cartridge is ejected from the ramjet exhaust nozzle. The liquid (kerosene)--powered ramjet motor then takes over, propelling the missile to a maximum speed of Mach 3.0, altitude-dependent.

France's successful testing of the updated ASMPA missile underscores its commitment to maintaining a robust and modernised defence infrastructure.



INS KILTAN



Indian Naval Ship Kiltan received a warm welcome from the **Royal Brunei Navy** upon its arrival at Muara, Brunei.

About INS Kiltan

INS Kiltan is an **indigenously built anti-submarine warfare stealth corvette**, representing the third vessel of the **four Kamorta-class corvettes** constructed under **Project 28**. Named after one of the islands in the **Aminidivi group of the Lakshadweep and Minicoy islands**, it was designed by the **Indian Navy's Directorate of Naval Design** and built by **Garden Reach Shipbuilders & Engineers (GRSE)** in Kolkata.

Features

Feature	Description
Innovative Design	India's first major warship with a superstructure made of carbon fibre composite material <ul style="list-style-type: none">Enhances stealth capabilitiesReduces top weightLowers maintenance costs
Cutting-Edge	Predominantly indigenous array of advanced weapons and sensors
Weaponry	<ul style="list-style-type: none">Heavyweight torpedoesASW rockets76 mm caliber Medium Range gunTwo multi-barrel 30 mm guns serving as close-in-weapon systems (CIWS) with dedicated fire control systemsMissile decoy rockets (Chaff)Advanced Electronic Support Measure (ESM) systemMost advanced bow-mounted sonarAir surveillance radar

INS Kiltan's arrival in Brunei underscores **India's commitment to maritime security** and highlights indigenous naval design and construction capabilities.

HANGOR CLASS SUBMARINES

- China has launched the first of **eight Hangor-class submarines for Pakistan**.
- The Hangor class is a **diesel-electric attack submarine**.
- Size and Displacement:**
 - Hangor class: 2,800 tons
 - Indian Navy's Kalvari class: 1,775 tons
- Propulsion:**
 - Hangor class: Equipped with Air Independent Propulsion (AIP)
 - Kalvari class: AIP planned for installation on INS Kalvari in 2024
- Submerged Endurance:**
 - AIP allows submarines** to stay submerged for longer periods.
- Armament:**
 - Both classes carry **torpedoes and anti-ship missiles**.
 - Kalvari class likely has more modern and battle-tested armament.
- Manoeuvrability:**
 - The larger size of the Hangor class may hamper its manoeuvrability in littoral waters compared to the smaller **Kalvari class**.



INDIA'S INTERNET ECONOMY TO GROW 6-FOLD TO \$1 TRILLION BY 2030



- Ramesh Damani suggests that the best time to invest in India was on July 24th, 1991, during Manmohan Singh's budget announcement, signaling a positive change in India's trajectory.
- He emphasizes that the next best time to invest is the present, advocating for continuous investment in Indian markets despite volatility.
- Damani shares his 30-year experience of remaining fully invested in Indian markets, highlighting the importance of staying invested and not being deterred by market fluctuations.
- He encourages young Indians to focus on equity investments for wealth-building, dismissing gold or cryptocurrency as less favorable options.
- Damani stresses the significance of humility in the market and the concept of mean reversion, cautioning against arrogance.
- He discusses the mispricing of growth in markets and the need to identify areas where potential business value is overlooked or overestimated.

GST PORTAL LAUNCHES FORM FOR REGISTERING MACHINES OF PAN MASALA AND GUTKHA MAKERS

Introduction of New Forms and Procedures

- The GST portal has introduced new forms and procedures for manufacturers in the pan masala and tobacco sectors to combat tax evasion.

- Two new forms, Form GST SRM-I for machine registration and Form GST SRM-II for monthly reporting, have been developed based on GST Council recommendations.



Implementation and Compliance Requirements

- Manufacturers of specified goods like pan masala and tobacco products must register all packing machines within 30 days of the new norms and report any additional machines within 24 hours.
- Monthly reporting of inputs and outputs is mandatory, with a special statement required by the 10th day of the following month.

Detailed Machine Registration

- Manufacturers are required to register each machine with detailed information such as make, year of production, number of tracks, and capacity.

DP WORLD OPENS FREE TRADE WAREHOUSE ZONE IN CHENNAI



DP World's Expansion in Chennai

- DP World has launched its largest free trade **warehouse zone in Chennai, India**, showcasing its commitment to India's economic landscape.
- The Chennai facility leverages the city's strategic advantages in connectivity and infrastructure, enhancing its role as a logistical nexus for seamless cargo transportation.

Strategic Advantages of Chennai

- Chennai offers robust connectivity to key global markets in South Asia, Africa, and Australia via maritime routes, enhancing trade facilitation.
- The Integrated Chennai Business Park (ICBP) economic zone, spanning over 6 lakh sq ft, symbolizes DP World's vision to utilize Chennai's infrastructure for economic prosperity.

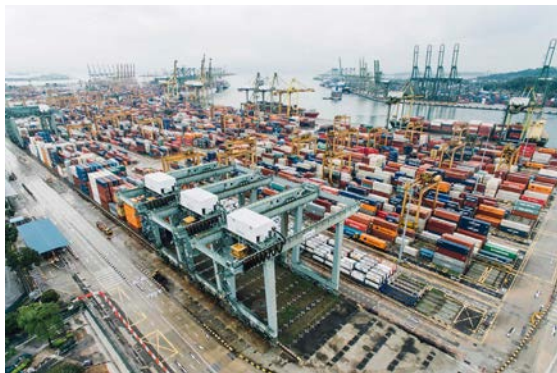
DP World's Economic Zones in India

- DP World's expansion in Chennai complements its existing economic zones in Mumbai and upcoming operations in Cochin, reinforcing its commitment to catalyzing India's economic growth.

Empowering Industries

- DP World's free trade warehouse zone in Chennai empowers industries like automotive, electronics, IT, healthcare, chemicals, and petrochemicals, providing them a strategic foothold in the Indian subcontinent.

INDIA, UAE COMMENCE TALKS ON INDIA-MIDDLE EAST-EUROPE ECONOMIC CORRIDOR



- **India and the UAE** recently held a significant meeting under the Intergovernmental Framework Agreement to enhance cooperation for the **India-Middle East-Europe Economic Corridor (IMEEC)**.
- The meeting aimed at developing and operationalizing the corridor to provide alternative supply routes, increase efficiencies, and reduce costs.

Delegation Leadership and Engagements

- The Indian delegation, led by Ambassador Sunjay Sudhir, included officials from various ministries and

agencies like the Ministry of Shipping and Ministry of Commerce.

- Engagements with key UAE entities like DP World UAE and AD Ports Group were conducted to discuss facilitating goods movement.

Strategic Importance and Implementation

- The agreement signed between India and the UAE underscores the significance of IMEEC, with both nations committed to its early implementation.
- Joint investment and technical collaboration are planned for the development of IMEEC.

International Cooperation at G20

- The IMEEC project garnered broader international cooperation with a Memorandum of Understanding signed by multiple countries during the G20 Summit in New Delhi.

INCOME TAX DEPARTMENT SETS COST INFLATION INDEX AT 363 FOR FINANCIAL YEAR 2024-25



- The **Cost Inflation Index (CII)** for FY 2023-24 is **348**.
- The CII is crucial for taxpayers to compute long-term capital gains accurately by adjusting for inflation, reflecting inflationary trends in the economy.

Tax Benefits

- A higher CII allows taxpayers to claim larger tax rebates, reducing their tax liability significantly and facilitating the calculation of indexed cost of acquisition for long-term capital gains.

Utilization in Tax Computation

- Taxpayers leverage the CII to calculate gains on the sale of long-term capital assets during FY 2024-25, ensuring they are taxed only on the actual appreciation of assets, aligning with Income-tax Act provisions.

Implications for Taxpayers

- The CII helps adjust asset purchasing prices over time, particularly for assets held for more than 36 months, aiding in accurate tax liability assessment and compliance with regulatory requirements.

INDIA RANKS 159 AMONG 180 COUNTRIES IN WORLD PRESS FREEDOM INDEX



- The **World Press Freedom Index** ranks **180 countries** based on journalists' freedom and independence to work and report.
- Countries like Norway, Denmark, and Sweden hold the top positions, while **India ranks 159th**, with Pakistan at 152nd and Sri Lanka at 150th.

Global Trends and Concerns

- The 2024 World Press Freedom Index highlights a decline in the political indicator, signaling a failure to protect press freedom by states and political forces.
- Artificial intelligence, especially in disinformation campaigns like deep fakes, poses a significant threat to press freedom.

War Against Nature and Journalist Peril

- Journalists covering environmental stories face risks, with 44 deaths in 15 years while reporting on environmental issues.
- This emphasizes the dangers journalists face reporting on critical global issues and the need for their protection.

Press Freedom in South Asia

- India, Pakistan, and Sri Lanka face challenges in press freedom, with rankings at 159th, 152nd, and 150th respectively.

- The Asia-Pacific region, including countries like Myanmar and China, presents a challenging landscape for journalists.

CHINA OVERTAKES US TO BECOME INDIA'S TOP TRADING PARTNER IN FY24



India's Trade Partners

- **China has become India's largest trading partner in FY 2023-24, surpassing the United States in total trade volume.**
- India's trade dynamics with its top 15 trading partners have evolved significantly, impacting exports, imports, and trade surplus/deficit across various sectors.

Trade Dynamics with China and the US

- India's exports to China increased by 8.7, reaching 16.67 billion, driven by sectors like iron ore, cotton, handloom, spices, fruits, and plastics.
- Imports from China also grew substantially by 3.24 to 101.7 billion, leading to an expanding trade deficit with China.
- India's exports to the US decreased by 1.32 to 77.5 billion, while imports dropped by 20 to 40.8 billion, resulting in an expanded trade surplus of 36.74 billion.

Other Major Trading Partners

- Besides China and the US, the United Arab Emirates, Russia, Saudi Arabia, and Singapore are significant trading partners for India.

OXFORD ECONOMICS GLOBAL CITIES INDEX 2024: DELHI SECURED THE 350TH RANK



- **Global Cities Index Rankings:** The Oxford Economics' Global Cities Index ranks cities worldwide based on Economics, Human Capital, Quality of Life, Environment, and Governance, with Delhi leading among Indian cities.
- **Indian Cities Rankings:** Delhi secures the highest position among Indian cities at 350, followed by Bengaluru, Mumbai, and Chennai. South Indian cities tend to perform relatively better in the rankings.
- **Insights into City Rankings:** The rankings offer a comprehensive view of cities' economic, social, and environmental standings, considering factors like human capital, governance, and quality of life.
- **Oxford Economics Expertise:** Oxford Economics is a leading economic advisory firm globally, utilizing extensive datasets to create the Global Cities Index and provide insights into global economic landscapes.
- **Regional Comparisons:** Islamabad and Rawalpindi lead the rankings for Pakistan, highlighting the relative standings of cities within the South Asian region.

India and The World

NEPAL CURRENCY NOTES INCLUDES INDIAN REGIONS

- Four years after diplomatic relations between India and Nepal deteriorated due to Nepal's inclusion of the districts of **Kalapani, Lipulekh, and Limpiyadhura** in its new map, the administration in Kathmandu has made the decision to **release a ₹100 currency note that portrays the country's map with the areas currently under Indian sovereignty.**

About border dispute between India and Nepal



- The **India-Nepal border dispute** involves a **372-square-kilometer region** encompassing **Limpiadhura, Lipulekh, and Kalapani**, located at the trijunction of India, Nepal, and China in **Uttarakhand's Pithoragarh district.**
- Nepal has long asserted its historical and obvious ownership to these areas.
- Treaty of Sugauli:** The conclusion of the Anglo-Nepalese War of **1814-1816** led to Nepal losing a section of its land to the East India Company as per the terms of the treaty.
- Article 5 of the treaty** nullified the authority of Nepal's rulers over the territory located east of the Kali River.
- The maps produced by the British Surveyor General of India in 1819, 1821, 1827, and 1856 depicted the **Kali River as having its source at Limpiadhura.**
- The conflict in determining the origin of the Kali River resulted in territorial conflicts between India and Nepal.
- In **July 2000**, Prime Minister Atal Bihari Vajpayee assured Nepal that **India had no interest in Nepali territory.** However, the mechanism led by the two nations did not make progress.

- During the visit of the Prime Minister of India to Nepal in 2014, both nations agreed to set up a boundary working group for speedy settlement of the border issue in Kalapani and Susta.
- Susta is a 145-sq-km area** that had fallen on the Indian side after the River Gandak changed course.
- In **2020, Nepal took the lead in seeking parliamentary agreement** for the inclusion of a 372 sq km territory in Uttarakhand in its new map, with the commitment to reclaim it.
- India condemned Nepal's "**cartographic aggression**" as unacceptable but emphasized that the issue **must be resolved diplomatically based on evidence.**

ELECTED WOMEN REPRESENTATIVES OF PANCHAYATI RAJ INSTITUTIONS PARTICIPATED IN CPD57



- Elected Women representatives from India's Panchayati raj Institutions (PRIs) addressed at the UN Headquarters in the CPD57 Side Event "**Localizing the SDGs: Women in Local Governance in India Lead the Way**".
- The event was jointly organized by **The Permanent Mission of India to the United Nations** and the **Ministry of Panchayati Raj** in collaboration with the **United Nations Population Fund (UNFPA).**
- India's Panchayati Raj system has been successful in empowering and including women in leadership roles with more than 1.4 million Elected Women Representatives (EWRs) in the country.

About UN Commission on Population and Development (UNCPD)

- The UN Commission on Population and Development (CPD) is an organization that **focuses on issues related to population and development.**

- In 1946, the Economic and Social Council (ECOSOC) **created a Population Commission**, which was later renamed as the Commission on Population and Development by the UN General Assembly in 1994.
- The Commission consists of **47 Member nations**.
- The ECOSOC elects member countries for a duration of 4 years, taking into account geographic dispersion.

5TH JOINT GROUP OF CUSTOMS (JGC) MEETING BETWEEN INDIA AND BHUTAN



- The 5th Joint Group of Customs (JGC) meeting **between India and Bhutan was held on 6th-7th May, 2024 in Leh, Ladakh**.
- The 5th JGC meeting discussed **bilateral issues like opening new Land Customs Stations** and notifying new trade routes, **infrastructure development**, automation and digitisation of transit processes, smuggling prevention, **coordinated cross-border management**, pre-arrival Customs data exchange, bilateral Customs cooperation agreement, and **electronic cargo system transit cargo movement**.
- The India-Bhutan Joint Group of Customs meets annually to explore **redefining and reengineering Customs procedures**, promoting cooperation, and **facilitating cross-border trade according to global best practices**.

About India and Bhutan

- India is **Bhutan's top trade partner** both as an import source and as an export destination.
- Since 2014, India's trade with Bhutan has more than tripled **from \$484 million in 2014-15 to \$1,615 million in 2022-23**, accounting for about 80% of Bhutan's overall trade.
- Trade with Bhutan through the land Customs Stations is significant as Bhutan is a land-locked country.
- Enhancing connectivity with Bhutan is pivotal to India's '**Neighbourhood First**' and the '**Act East**' Policy.

INDIA CONTRIBUTES \$5,00,000 TO U.N. COUNTER-TERRORISM TRUST FUND



- India has donated **\$500,000** to the **U.N. Counter-Terrorism Trust Fund**, demonstrating its steadfast dedication to assisting collective efforts in the worldwide battle against the **menace of terrorism**.
- India has currently contributed a total of **\$2.55 million to the trust fund**.

About United Nations Counter-Terrorism Trust Fund

- It was **founded in 2009** and then integrated into the **UN Office of Counter-Terrorism (UNOCT) in 2017**.
- The primary objective of the UN Counter-Terrorism Trust Fund (UNCTTF) is to provide assistance to **worldwide initiatives aimed at combating terrorism**.
- India's contribution would **provide support to UNOCT's global programs**, primarily focusing on Countering Financing of Terrorism (CFT) and Countering Terrorist Travel Program (CTTP).
- The Fund accepts contributions **from Governments, inter-governmental and non-governmental organizations, private institutions and individuals**.
- The aim is to **strengthen the capabilities of member governments**, with a special emphasis on those in **Eastern and Southern Africa**, to effectively address major issues such as counteracting terrorist financing and restricting the movement of terrorists.

IRELAND, NORWAY AND SPAIN OFFICIALLY RECOGNISE THE STATE OF PALESTINE

- **Norway, Ireland and Spain** formally recognise the state of Palestine. **Now 146 out of 193 UN members recognise Palestine**.
- This will increase **diplomatic relations between the Palestinian Authority** and the three countries and isolate Israel.



About India and Palestine

- **India and Palestine** established diplomatic ties in **1974**, with India becoming the first non-Arab state to officially recognize the Palestine Liberation Organisation (PLO).
- In **1988**, **India** was among the first nations that recognized the existence of the Palestinian State.
- In **1996**, **India** established its **Representative Office in Gaza City**, Palestine, which was relocated to Ramallah in 2003.
- India has supported the revival of direct talks aimed at creating a self-governing, autonomous, and sustainable Palestinian state that exists alongside Israel, with mutually agreed borders and peaceful relations.

BIMSTEC CHARTER COMES INTO FORCE ON 20 MAY 2024

- The **Charter of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)** entered into force on **20 May 2024**.
- It paves the way for **external partnerships and admission of observers and new members**.
- The Charter was signed by the **Heads of State and Government of the BIMSTEC member States** during the **Fifth Summit** held virtually in **Colombo, Sri Lanka**, on **30 March 2022**.



BIMSTEC



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

- BIMSTEC is a **regional organization** consisting of **seven member states: Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand**.
- Established in **1997**, its primary objective is to facilitate comprehensive technical and economic collaboration among the nations situated in the Bay of Bengal region.
- Its secretariat is located in **Dhaka, Bangladesh**.
- The sub-regional organization was founded in 1997 upon the endorsement of the Bangkok Declaration.
- Originally comprising of **four Member States**, the organization was referred to as '**BIST-EC**' (Bangladesh, India, Sri-Lanka, and Thailand Economic Cooperation).
- In **1997**, the name was changed to '**BIMST-EC**' following Myanmar's accession.
- In 2004, the inclusion of Nepal and Bhutan resulted in a renaming of the organization to the 'Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation' (BIMSTEC).
- The BIMSTEC region encompasses around **1.5 billion individuals** and has a collective GDP exceeding **USD 3.8 trillion**.

MOU and Agreements

QUADRANT FUTURETEK AND RAILTEL SIGN MOU TO GLOBALIZE KAVACH TECHNOLOGY



- **RailTel Corporation of India Limited** has signed a Memorandum of Understanding (MoU) with **Quadrant Future Tek Limited**, previously known as **Quadrant Cables Private Ltd.**, in order to improve train safety in India and globally.
- The purpose of this strategic cooperation is to investigate and deploy the indigenous automatic train protection system, **KAVACH**, in India and other international markets.

About the KAVACH System

- KAVACH is an **indigenously developed Automatic Train Protection (ATP) System for Indian Railways**.
- **Main Function of Kavach:** It is designed to **automatically bring a train to a halt** when it notices another train on the same line within a prescribed distance.
- Developed by the **Research Design and Standards Organisation (RDSO)** of the Ministry of Railways in collaboration with Indian industry.
- The system consists of electronic devices and Radio Frequency Identification (RFID) devices that are

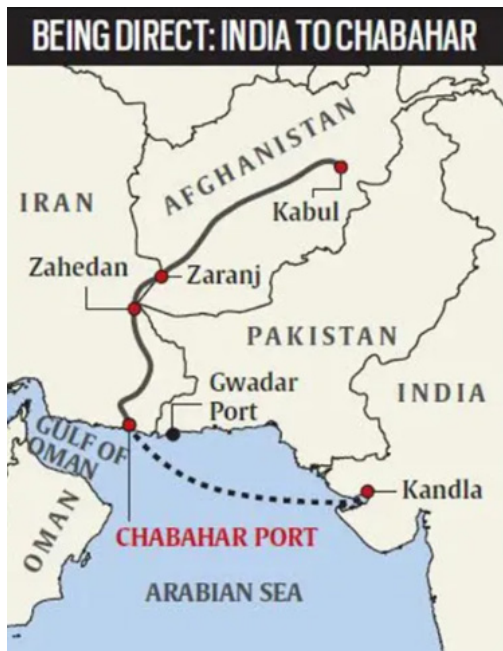
installed in locomotives, the signalling system, and the tracks.

- These devices communicate with each other using ultra-high radio frequencies to control the brakes of trains and alert drivers. The system operates based on pre-programmed logic.
- Kavach is one of the **cheapest Safety Integrity Level 4 (SIL-4) certified** technologies, with the probability of an error being 1 in 10,000 years. It opens avenues of export of this indigenous technology for Railways. It helps the Railways to achieve the goal of “**zero accidents**”.
- The trials were **facilitated by the South Central Railway** to achieve safety in train operations across Indian Railways.

KHANIJ BIDESH INDIA LTD (KABIL) WORKING TO ACQUIRE A LITHIUM BLOCK IN AUSTRALIA

- **Khanij Bidesh India Ltd. (KABIL)** aims to procure a **lithium block in Australia in the current year**.
- KABIL, a joint venture of **three public sector undertakings (PSUs)**, is currently engaged in the exploration and acquisition of mineral assets in other countries. Over the past year, KABIL has been actively operating in Australia.
- KABIL is owned by three public sector undertakings -- **National Aluminium Company Ltd (Nalco)**, **Hindustan Copper Ltd (HCL)** and **Mineral Exploration and Consultancy Ltd (MECL)**.
- Lithium is the most important mineral for the energy transition, a fundamental component of lithium-ion batteries, which power electric **vehicles and battery energy storage systems**.
- **Current status:** India through Khanij Bidesh India Limited (KABIL) has signed an agreement with Argentina's State-owned CAMYEN for exploration and development of **five lithium brine blocks in Argentina**. The agreement will allow KABIL to evaluate, prospect, explore.

INDIA INKS 10-YEAR DEAL TO OPERATE IRAN'S CHABAHAR PORT



- India had signed into a **10-year agreement with Iran to enhance and manage the Iranian port of Chabahar.**
- The agreement aims to boost the **diplomatic ties between India and Iran**, a strategically important country in the Middle East.
- India is now engaged in the **development of the port in Chabahar**, located on Iran's **south-eastern coast along the Gulf of Oman.**
- The purpose of this development is to establish a transportation route for products to **Iran, Afghanistan, and central Asian countries.**
- This route will bypass the ports of **Karachi and Gwadar in Pakistan**, which are considered rivals to India.
- Chabahar Port's significance transcends its role as a mere conduit between India and Iran as it serves as a vital trade artery connecting India with **Afghanistan and Central Asian Countries.**

GLENMARK AND BEIGENE TO LAUNCH NOVEL ANTICANCER DRUGS IN INDIA



- Glenmark, a pharmaceutical company, has **entered into an exclusive partnership with BeiGene** to market and distribute its **oncology drugs, Tislelizumab and Zanubrutinib, in India.**
- Glenmark will be responsible for locally required development, registration and distribution providing access to **BeiGene's oncology medicines for cancer patients across India.**

About Tislelizumab and Zanubrutinib

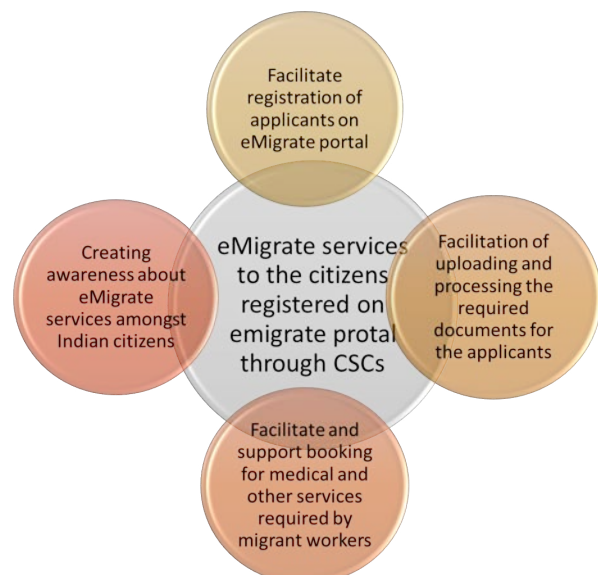
- Tislelizumab is a **new monoclonal antibody that targets the programmed cell death protein 1 (PD-1)** and is used to treat advanced or metastatic esophageal squamous cell carcinoma. It is also being developed to **treat different types of malignancies.**
- Zanubrutinib, a **BTK inhibitor**, has been authorized for the **treatment of certain blood cancers.** Multiple studies have consistently demonstrated its positive effectiveness and safety record.

MOU TO PROVIDE EMIGRATE SERVICES THROUGH COMMON SERVICES CENTRES

- A Memorandum of Understanding (MoU) is entered into between **Ministry External Affairs (MEA), Government of India, Ministry of Electronics and Information Technology (MeitY), Government of India and CSC eGovernance Services India Limited** to provide the eMigrate services through CSCs in the country.

About E-Migrate project

- eMigrate project is undertaken to **assist mainly the blue-collar workers going to Emigration Check Required (ECR) countries.**
- The project was conceptualized to address issues faced by the migrant workers by making the **emigration process online seamless.**



- It also aims to **bring foreign employers and registered recruitment agents and insurance companies** on one common platform aimed at promoting safe and legal migration.

About Common Services Centres, a Special Purpose Vehicle (CSC SPV)

- Common Services Centers (CSCs) are an **integral part of the Digital India mission**.
- The CSCs are frontend services delivery points for the delivery of digital services to the citizens, especially in the **rural and remote areas across the country**.
- Currently, more than **5.50 lakh CSCs are delivering** more than 700 digital services to citizens in assisted mode with enhanced ease and convenience.

ARMED FORCES MEDICAL SERVICES & IIT HYDERABAD INK MOU



- The **Armed Forces Medical Services (AFMS)** have signed a Memorandum of Understanding (MoU) with the **Indian Institute of Technology (IIT) Hyderabad** to collaborate on research and training.
- The MoU promotes **medical device innovation and research** to address soldier health challenges in different terrains.

- **IIT Hyderabad's Biotechnology, Biomedical Engineering, and Bioinformatics** departments will provide the technical knowledge to meet the Armed Forces' diversified medical needs.
- **Key areas of collaboration include:**
 - ♦ Drone-based patient transport
 - ♦ Telemedicine innovations
 - ♦ Application of Artificial Intelligence in the medical field
 - ♦ Advancements in nanotechnology.

MOU ON DIGITALIZATION OF VACCINE COLD CHAIN MANAGEMENT



- The **Department of Animal Husbandry & Dairying (DAHD)**, Ministry of Fisheries, Animal Husbandry & Dairying signed a Memorandum of Understanding (MoU) with the **United Nations Development Programme (UNDP) India on Digitalization of Vaccine Cold Chain Management**, Capacity Building, and Communication Planning.
- The MoU aims to **enhance the digitalization of vaccine cold chain management**, capacity building, and communication planning in India.
- DAHD and UNDP aim to **build a strong, effective, and inclusive animal health and welfare system in the country**.

IREDA ATTAINS 'NAVRATNA' STATUS



- Indian Renewable Energy Development Agency (IREDA) was granted 'Navratna' status by the Department of Public Enterprises.

About IREDA

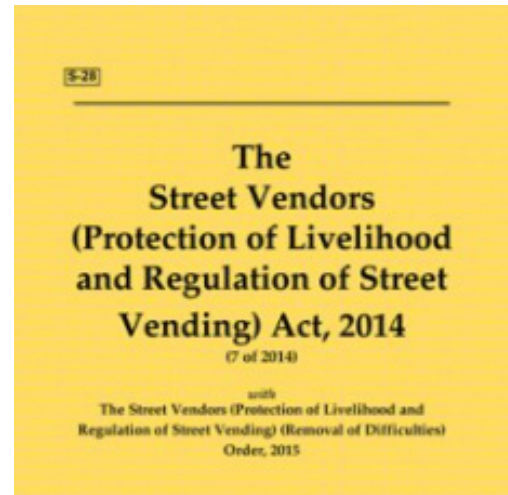
- IREDA is a **non-banking financial entity operating under the Ministry of New and Renewable Energy**.
- It is dedicated to promoting, developing, and providing financial support for the establishment of initiatives related to new and renewable energy sources.

Criteria for granting Navratna Status

- Eligibility:** In order to be eligible for Navratna status, a corporation must initially achieve the Miniratna category-I classification and be included in Schedule A of Central Public Sector Enterprises (CPSEs).
- Navratna status is conferred by the Indian government to **top public sector enterprises (PSUs)**, giving them the right to make substantial investments of up to ₹1,000 crore without needing clearance from the central authority.
- These companies are authorized to allocate a **maximum of 30 percent of their net worth each year**, as long as it does not exceed ₹1,000 crore.
- In addition, businesses have the opportunity to engage in collaborative business initiatives, **establish strategic alliances, and establish foreign branches**.

STREET VENDORS (PROTECTION OF LIVELIHOOD AND REGULATION OF STREET VENDING) ACT, 2014

- The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014, completed its tenth anniversary.



- Around **49.48 lakh street vendors have been identified in India**.
- Uttar Pradesh has the maximum** at 8.49 lakh, followed by Madhya Pradesh at 7.04 lakh. Delhi has only 72,457 street vendors
- About Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014:**
 - The Act was formulated to with the goal of safeguarding and managing street vending in urban areas through regulations and programs implemented at the state level, under the supervision of Urban Local Bodies (ULBs).
 - The legislation outlines the **specific duties and obligations of vendors** and different tiers of government, highlighting the beneficial contribution of vendors to urban areas and the crucial need to safeguard their means of earning a living.
 - The commitment is to **ensure inclusion and certification** by accommodating all current sellers in specific vending zones and providing them with vending credentials.
 - The Act establishes participatory governance mechanisms, such as **Town Vending Committees (TVCs)**, in which street vendor representatives make up 40% of the members, with **33% of them being women vendors**.
 - The proposed **Grievance Redressal Committee**, which is headed by a civil judge or judicial magistrate, plays a key role in this process. Grievance redressal

mechanisms refer to committees that have the responsibility of ensuring that all current vendors are included in designated vending zones.

- ♦ The provision also mandates that the States/ULBs carry out a survey to identify SVs at a minimum frequency of once every five years.

BANKS CANNOT RESTRICT DEBTOR'S RIGHT TO TRAVEL ABROAD: BOMBAY HIGH COURT



- The Bombay High Court has ruled that **public sector banks (PSBs) are not allowed to promote or demand the issuing of Look Out Circulars (LOCs) against individuals who fail on loans.**
- The court has invalidated the clauses of the **central government's Office Memoranda (OM) that granted PSBs this authority.**
- The court ruled that the act of public sector banks issuing a Look Out Circular (LOC) against putative default debtors, without a specific statute or law, **infringes upon an individual's fundamental rights under Article 21 (Right to Life).**
- LOCs were issued by the Bureau of Immigration of the Ministry of Home Affairs (MHA) based on Office Memoranda (OM) from 27th October 2010.
- The Centre's office memorandum in an amendment issued in 2018 empowered the **public sector banks to issue LOCs in the "economic interest of India".**
- This **essentially restrained a person from travelling abroad** if the departure of such a person could be **detrimental to the economic interest of the country.**
- In the case of *Viraj Chetan Shah v Union Of India & Anr, 2024*, the court observed that the government was unable to demonstrate successful debt recovery since the individual was not granted permission to travel abroad.
- It opposed the use of LOCs as a manipulative strategy to evade legal procedures, which **PSBs perceive as inconveniences.**

- The verdict has no impact on the current restraint orders issued by competent authorities. Banks retain the ability to request court or tribunal orders to prevent individuals from traveling abroad, but they are no longer able to request the issuance of **Look Out Circulars from the centre.**

SHOMPEN TRIBE CASTS VOTE FOR THE FIRST TIME



- The Shompen tribe, classified as **one of the Particularly Vulnerable Tribal Groups (PVTGs)**, participated in the electoral process for the first time.
- They exercised their **right to vote in the Andaman and Nicobar Lok Sabha seat.**
- According to B.S. Jaglan, the Chief Electoral Officer of the Andaman and Nicobar Islands, **seven members of the tribe cast their votes.**

About Shompen tribe

Shompen Tribe	Features
Location	Great Nicobar Island in the Andaman and Nicobar archipelago
Livelihood	Semi-nomadic hunter-gatherers; rely on hunting, gathering, fishing, and basic horticulture
Hunting	Wild pigs, pythons, monitor lizards, crocodiles, and sea turtles
Environment	Significant biological hotspot; includes Campbell Bay National Park, Galathea National Park, and Great Nicobar Biosphere Reserve
Population	Estimated 2011 Census: 229
Family Structure	Eldest male member controls family activities; monogamy is common, but polygamy is allowed

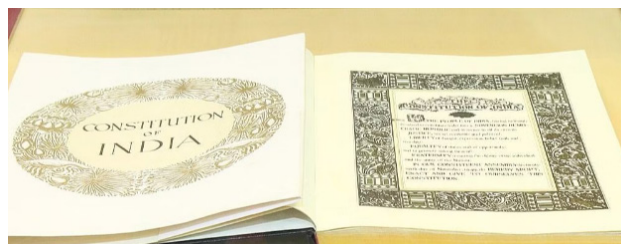
INDIA'S CENTRALISED PUBLIC GRIEVANCE REDRESS AND MONITORING SYSTEM (CPGRAMS) RECOGNIZED AS A BEST PRACTICE IN COMMONWEALTH SECRETARIES



- The Commonwealth Secretariat has recognized Centralised Public Grievance Redress and Monitoring System (CPGRAMS) of India as a best practice in Commonwealth Secretaries of Public Service/Secretaries meeting held in London.
- Along with CPGRAMS, the Civil Registration and Vital Statistics System (CVRS) and identity management systems of Namibia, Human Resource Management and E-Citizen models of Kenya were also recognised as future-ready governance best practices from across the Commonwealth.
- **About Centralised Public Grievance Redress and Monitoring System (CPGRAMS):**
 - ♦ The National Informatics Centre, in collaboration with the **Ministry of Personnel, Public Grievances & Pensions**, has created an online web-based system.
 - ♦ Its objective is to **accept, address, and oversee public grievances**.
 - ♦ It serves as a unified platform that links all Ministries/Departments of the Government of India and States.
 - ♦ Individuals have the ability to **utilize CPGRAMS by means of a separate mobile application** using the UMANG integrated mobile application.
 - ♦ It also provides a recourse for dissatisfied citizens through an appeal procedure.
 - ♦ During the registration process, individuals are assigned a distinct registration ID that allows them to monitor the progress of their complaints.

ARTICLE 31C OF THE INDIAN CONSTITUTION

- During a hearing to determine if the government has the authority to take and **distribute private property**, a panel of nine judges from the Supreme Court has decided to examine the **issue of whether Article 31C is still in effect**.



About Article 31C

- It protects laws enacted to ensure the **“material resources of the community”** are distributed to serve the common good (**Article 39(b)**) and that **wealth and the means of production are not “concentrated”** to the **“common detriment”** (**Article 39(c)**).
- As per Article 31C, these directive principles (Articles 39(b) and 39(c)) cannot be challenged by invoking **Article 14 or Article 19**.
- **Article 31C was added by the 25th Amendment Act of 1971.**
- In the **Kesavananda Bharati Case (1973)**, the Supreme Court declared the above second provision of Article 31C (No law containing a declaration that it is for giving effect to such policy shall be questioned in any court on the ground that it does not give effect to such a policy) as unconstitutional and invalid on the ground that **judicial review is a basic feature of the Constitution**.
- The **42nd Amendment Act (1976)** extended the scope of the above first provision of Article 31C by including within its protection any law to implement any of the directive principles specified in Part IV of the Constitution and not merely in Article 39 (b) or (c).
- However, this **extention was declared as unconstitutional and invalid by the Supreme Court in the Minerva Mills case (1980).**

Status of Article 31C

- The **original Article 31C was subsequently ‘substituted’** with the extended version in the 42nd Amendment.
- This means the former version ended when the Amendment took effect. After Minerva Mills struck down this new Article 31C, the former clause would not automatically revive.
- The doctrine of revival must apply, and the post-Kesavananda Bharati position **on Article 31C must be restored**.
- After the court strike down the **Constitution (99th Amendment) Act**, observations were used to explain and support the doctrine.
- After the 99th Amendment was overturned, **collegium judge nominations were reinstated**.
- The 99th Amendment **created National Judicial Appointments Commission**.

- Automatic Rebirth of Pre-Amendment Clauses: If a constitutional amendment's substitute and insertion is unconstitutional, the **pre-amendment provisions automatically prevail**.

INTERIM BAIL



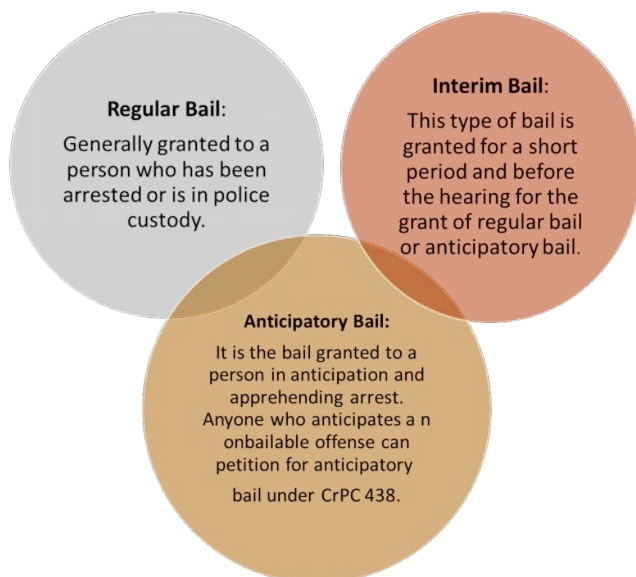
- The Supreme Court (SC) **granted interim bail to Delhi Chief Minister Arvind Kejriwal**.
- The Chief Minister of Delhi was arrested on March 21 by the Enforcement Directorate (ED) on account of his alleged involvement in the **Delhi excise policy case**.

About Bail:

- Bail is the **temporary release** of the accused in a criminal case before the court has made a final decision.
- The term **"bail" is not explicitly defined** under the Code of Criminal Procedure (CrPC).

Types of Bail:

- In India, there are typically three types of bail depending on the stage of the criminal matter:



DOORDARSHAN KISAN (DD KISAN) LAUNCHED TWO AI ANCHORS NAMED AI KRISH AND AI BHOOMI



- Doordarshan Kisan launched its two artificial intelligence anchors, known as **AI Krish and AI Bhoomi**.
- By employing artificial intelligence, Doordarshan Kisan has become the **first government TV channel in India to utilize AI anchors**.
- The AI anchors are designed to look and function just like human presenters, **capable of delivering news 24/7 without breaks**.
- By introducing AI Krish and AI Bhoomi, Doordarshan Kisan aims to improve its services for farmers, guaranteeing the delivery of precise and timely information in a creative and captivating manner.
- They will cover topics such as **agricultural research, market trends, weather updates**, and government schemes.
- These AI anchors can **communicate in fifty different languages**, catering to a diverse audience both domestically and internationally.

About Doordarshan Kisan

- Doordarshan Kisan, founded on **May 26, 2015**, by the Government of India, is the lone television channel in the nation exclusively devoted to the agricultural community.
- The channel's objective is to **provide farmers with up-to-date information on weather fluctuations, market circumstances**, and other crucial data to assist them in making prompt and well-informed choices.

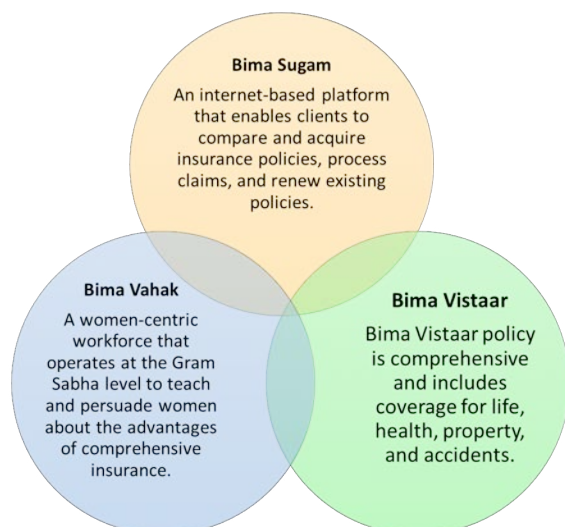
Schemes in news

IRDAI'S MOST-AFFORDABLE BIMA VISTAAR POLICY



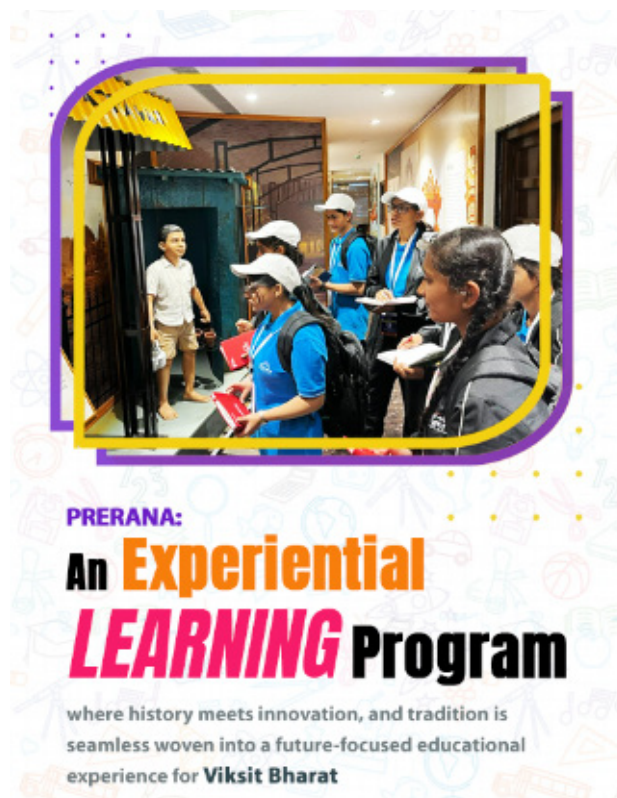
- The Insurance Regulatory and Development Authority of India (IRDAI) proposed setting the pricing of **Bima Vistaar at ₹1,500 per policy**.
- Bima Vistaar is a comprehensive and cost-effective mass product with ambitious targets of **targeting the rural sections of the country**.
- Bima Vistaar offers specific advantages for every risk category, guaranteeing prompt claim payments without the need for surveyors.
- Bima Vistaar is designed to cater to the **unexplored regions as a social safety net offering**.

Insurance Penetration in India



- India's insurance penetration **decreased to 4% in the financial year 2022-23 (FY23)**, compared to 4.2% in FY22. This is well behind the worldwide insurance penetration rate of 6.8 percent.
- In order to accelerate progress towards the goal of providing insurance to everyone, the IRDAI developed the concept of Bima Trinity: **Bima Vistaar, Bima Sugam and Bima Vahak**.

PRERNA: AN EXPERIENTIAL LEARNING PROGRAMME



- Secretary, **Department of School Education and Literacy (DoSEL), Ministry of Education**, Shri Sanjay Kumar virtually addressed the first alumni meeting of the Prerna Program.

About PRERNA Programme

- PRERANA started the **journey in the pilot phase from 15th January 2024 to 17th February 2024** in the Vernacular school at Vadnagar, Mehsana, Gujarat.

- It aims to **provide all participants with a significant, unique, and motivating experience**, ultimately providing them with leadership qualities.
- Every week, a heterogeneous cohort of **20 students, consisting of 10 male and 10 female** individuals from various parts of the nation, will be chosen to participate in the program.
- The curriculum is **developed by IIT Gandhi Nagar**.
- The foundation of these values is built on nine themes:
 1. Swabhimān (self-respect) and Vinay (humility)
 2. Shaurya (courage) and Sahas (bravery)
 3. Parishram (hard work) and Samarpan (dedication)
 4. Karuna (compassion) and Sewa (service)
 5. Vividhata (diversity) and Ekta (unity)
 6. Satyanishtha (truthfulness) and Shuchita (cleanliness)
 7. Navachar (innovation) and Jigyasa (curiosity)
 8. Shraddha (faith) and Vishwas (trust)
 9. Swatantrata (freedom) and Kartavya (responsibility).
- The daily schedule includes **yoga, mindfulness, and meditation classes**, as well as experiential learning, thematic workshops, and engaging hands-on activities.
- Evening activities include visits to **ancient and heritage places, inspirational film screenings**, artistic activities related to mission life, talent shows, and other activities that promote a comprehensive learning experience.
- Despite two extensions until June 2024, the **Smart Cities Mission (SCM) launched in 2015**, is unlikely to meet its deadline, with 5,533 completed projects funded at ₹65,063 crore and 921 ongoing projects worth ₹21,000 crore.

MISSION ISHAN



- The **Indian Single Sky Harmonized Air Traffic Management (ISHAN)** program in India was launched

with the **major aim to optimize and improve air traffic management through harmonization**.

- India is strategizing a significant effort to consolidate its four Flight Information Regions (FIRs) located in **Delhi, Mumbai, Kolkata, and Chennai** into a single, unified airspace in Nagpur.
- This initiative also involves synchronizing Air Traffic Management operations from Nagpur.
- The **Airports Authority of India (AAI), a government-owned organization**, has requested expressions of interest (EoI) for the development of a comprehensive project report.
- Presently, the Indian airspace is partitioned into four distinct flight information regions (FIRs) located in Mumbai, Kolkata, Delhi, and Chennai, with an additional sub-FIR in Guwahati. **Each of these regions is independently regulated**.
- This is anticipated to optimize operations, increase capability, and reduce overcrowding, resulting in advantages for both airlines and passengers.
- According to the credit rating agency, ICRA, for FY2024 (April-March 2024), **domestic air passenger traffic is estimated to be around 154 million**, a year-on-year growth of 13 percent, surpassing the pre-Covid levels of about 142 million in FY2020.

PRAGATI-2024



- The Central Council for Research in Ayurvedic Sciences (CCRAS), an autonomous body under the Union Ministry of Ayush, has launched "**PRAGATI- 2024**" (**Pharma Research in AyurGyan And Techno Innovation**).
- It offers a very useful opportunity for **collaborative research in the field of Ayurveda**.
- The aim of CCRAS is to reach each stakeholder and therefore we have started giving scholarships so that students understand the importance of research.
- The **CCRAS is an autonomous body of the Ministry of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy)**.

Summit and Conferences

ANTARCTIC TREATY CONSULTATIVE MEETING

- The **Committee for Environmental Protection (CEP)** plays a crucial role in the international community's efforts to safeguard **Antarctica's fragile ecosystem and promote scientific research in the region.**
- Convened annually under the **Antarctic Treaty System**, **these meetings provide a forum for Antarctic Treaty Consultative Parties** and other stakeholders to address critical environmental, scientific, and governance issues in Antarctica.
- Since its establishment in **1991** under the Protocol on Environmental Protection to the Antarctic Treaty (**the Madrid Protocol**), the CEP has been a key advisor to the **Antarctic Treaty Consultative Meeting (ATCM)**, providing guidance on environmental protection and conservation in Antarctica.



GLOBAL BIOFUEL ALLIANCE (GBA)

Officials from the **Ministry of Petroleum and Natural Gas** recently announced that the **Global Biofuel Alliance (GBA)** has adopted a work plan centered on assessing country-specific landscapes, drafting policy frameworks, and conducting biofuel workshops.

Aspect	Details
Alliance Name	Global Biofuel Alliance (GBA)
Type	Multi-stakeholder alliance of Governments, International Organizations, and Industries

Initiative by	India
Launch	On the sidelines of the 2023 G20 summit in New Delhi
Objective	To bring together the biggest consumers and producers of biofuels to drive the development and deployment of biofuels
Significance	<ul style="list-style-type: none"> • Strengthening markets • Facilitating global biofuels trade • Sharing policy lessons • Providing technical support for national biofuels programs worldwide
Capacity Building	<ul style="list-style-type: none"> • Facilitating capacity-building exercises across the value chain • Promoting technology advancements • Enhancing the utilisation of sustainable biofuels through diverse stakeholder participation
Standards and Regulations	Facilitating the development, adoption, and implementation of internationally recognised standards, codes, sustainability principles, and regulations to incentivise biofuel adoption and trade
Knowledge Hub	Acting as a central repository of knowledge and an expert hub
Membership	24 countries and 12 international organisations have agreed to join



HAGUE CONVENTION

- UNESCO commemorates the **70th anniversary of the Hague Convention for the Protection of Cultural Property in Armed Conflict**.
- The Convention is the **first legal framework dedicated to safeguarding movable and immovable heritage**.
- It protects **cultural property during both peace and conflict**.
- **135 member states**, including India, have ratified the Convention.
- The Convention includes **two Protocols, from 1954 and 1999, aimed at protecting cultural treasures**.
- The **1999 Protocol** introduced the concept of **Enhanced Protection for Cultural Properties**.

GLOBAL ALLIANCE OF NATIONAL HUMAN RIGHTS INSTITUTIONS (GANHRI)

The **Global Alliance of National Human Rights Institutions (GANHRI)** has deferred the accreditation of India's **National Human Rights Commission (NHRC)** for the second consecutive year.

This deferral could impact **India's voting rights** at the **Human Rights Council** and some **UNGA bodies**.

Issues leading to the deferral include:

- Lack of transparency in NHRC member appointments.
- Involvement of police officers in human rights investigations.
- Insufficient gender and minority representation.

These concerns were reiterated by civil society organisations and human rights activists.

This is the first time India's NHRC has faced two consecutive years of deferred "**A-status**" accreditation, a status it has held with brief interruptions since 1999.

GANHRI is an international organisation that brings together national human rights institutions (NHRIs) worldwide.

GANHRI's primary objectives are to **promote and strengthen NHRIs** to be more effective in **protecting and promoting human rights** at the national level.

INDIA-MIDDLE EAST-EUROPE ECONOMIC CORRIDOR (IMEEC)

An Indian delegation recently visited the **UAE** to engage in discussions with key entities regarding the **India-Middle East-Europe Economic Corridor (IMEEC)**.

About the India-Middle East-Europe Economic Corridor (IMEEC)

- The IMEEC was announced on the sidelines of the **G20 meeting in New Delhi**, where a memorandum of understanding was signed between the **European Union** and seven countries: **India, the US, Saudi Arabia, the United Arab Emirates (UAE), France, Germany, and Italy**.
- The corridor aims to establish a **reliable and cost-effective cross-border ship-to-rail transit network** to complement existing maritime routes.
- Its goals include **increasing efficiency, reducing costs, securing regional supply chains, enhancing trade accessibility, boosting economic cooperation, generating jobs, and lowering greenhouse gas emissions**.

Structure of the IMEEC

The IMEEC will consist of two separate corridors:

- The **east corridor will connect India to the Gulf**.
- The **northern corridor will connect the Gulf to Europe**.

Key Components

- **Shipping Route:** This will link **Mumbai and Mundra (Gujarat)** with the **UAE**.
- **Rail Network:** This network will connect the **UAE, Saudi Arabia, and Jordan** with the **Israeli port of Haifa**, reaching the **Mediterranean Sea**.
- **Sea Connection:** Haifa will be connected by sea to the port of **Piraeus in Greece**, which will then connect to **Europe**.

EURASIAN ECONOMIC UNION (EAEU)

India is "seriously considering" initiating talks for a free trade agreement with the **Eurasian Economic Union (EAEU)**, as the **Foreign Minister of Belarus** declared during his recent two-day visit to India.

About the Eurasian Economic Union (EAEU)

- The EAEU is an **international economic union and free trade zone** comprising countries located in **Central and Northern Asia and Eastern Europe**.
- It was established by the **Treaty on the Eurasian Economic Union**, signed on **May 29, 2014, in Astana**.
- The member countries include **Russia, Armenia, Belarus, Kazakhstan, and Kyrgyzstan**.

Objectives

The EAEU aims to comprehensively upgrade, enhance the competitiveness of, and foster cooperation between the national economies of its member states. It promotes stable development to improve the living standards of the citizens of its member countries.

Key Features

- **Free Movement:** The EAEU allows the free movement of goods, services, capital, and labor.
- **Policy Coordination:** It pursues coordinated, harmonized, and unified policies in various sectors as

determined by the Treaty and international agreements within the Union.

Structure

- **Supreme Eurasian Economic Council:** The highest body of the EAEU, consisting of the heads of the member states.
- **Eurasian Economic Commission:** Based in Moscow, this permanent supranational regulatory body ensures the functioning and development of the EAEU and develops proposals for further integration.
- **Court of the EAEU:** Based in Minsk, this serves as the judicial body of the Union.

NASA DETECTED SOLAR FLARE



- NASA's Solar Dynamics Observatory recently detected an intense solar flare classed as an **X1.2 flare**, **belonging to the "X-class" category**.
- The event resulted in a significant shortwave radio blackout in southeast Asia, Australia, and New Zealand.

About Solar Flare

- Solar storms refer to the **rapid release of magnetic plasma** from the surface of the sun.
- Solar flares develop when **magnetic energy** is discharged from sunspots, which are places on the Sun that are cooler than the surrounding photosphere.
- The classification of solar flares is based on a logarithmic scale comparable to **the Richter scale, with four classes: B, C, M, and X**.
- The class represents the magnitude of the flare, while the following number indicates its intensity on a more detailed level.
- Consequently, each class is partitioned into 9 subdivisions. As an illustration, X1 to X9.
- These events can endure for **a brief period of minutes or extend for several hours**.

MICROSOFT RELEASES PHI-3-MINI

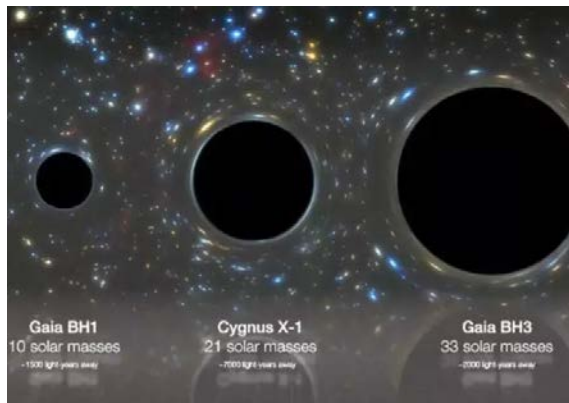
- Microsoft has launched PHI-3, the smallest AI model and has characterized it **as a collection of accessible AI models** that are the most proficient and economical small language models (SLMs) currently accessible.



- Phi-3-Mini is considered to be the **first among the three tiny versions that Microsoft** will eventually launch. It has demonstrated superior performance compared to models of similar and larger sizes in many benchmarks, including **language, reasoning, coding, and mathematics**.
- Microsoft's newest model broadens the range of top-notch language models accessible to clients, providing them with additional practical options for constructing generative AI applications.
- Phi-3-mini, **a language model with a value of 3.8 billion**, may be accessed on many AI development platforms like Microsoft Azure AI Studio, HuggingFace, and Ollama.
- The quantity of dialogue that an AI is capable of comprehending and generating at a specific moment is referred to as the context window, and is quantified in terms of tokens.
- Microsoft offers the Phi-3-mini in two versions: **one with a 4K context-length and another with 128K tokens**.
- The **Phi-3-mini is the first model** in its category that can accommodate a context window of up to 128K tokens, with minimal effect on quality.
- The model is specifically calibrated to adhere to various types of instructions provided by users. This also implies that the model is readily deployable without any additional setup or configuration.

STELLAR BLACK HOLE: GAIA BH3

- Astronomers have recently detected **Gaia-BH3, the largest known star black hole in the Milky Way galaxy**.
- This black hole is the largest known star black hole in the Milky Way galaxy **and has a mass approximately 33 times greater than that of our sun**.



- The presence of the object was detected in the data collected by the **European Space Agency's Gaia mission** due to its influence on the orbit of the companion star, causing an unusual **"wobbling" motion**.
- It is situated in the **Aquila constellation**, at a distance of 1,926 light-years from Earth. This makes it the second-closest black hole known to us.
- Stellar black holes are **formed as a result of the collapse of a single star**.
- The scientists employed the European Southern Observatory's Very Large Telescope located in Chile's Atacama Desert, together with other terrestrial observatories, to verify the mass of Gaia BH3.
- The nearest black hole, **Gaia BH1**, is **situated approximately 1,500 light-years distant**.
- It is a **stellar black hole** which is formed as a result of the collapse of a single star.

CHINA'S HIGH ENERGY PHOTON SOURCE (HEPS)



- China has **inaugurated the High Energy Photon Source (HEPS)**, which will be the first fourth-generation synchrotron light source in Asia.
- There are presently over 70 synchrotrons worldwide that are either operational or being built.
- Fourth-generation facilities utilize a multi-bend achromat lattice, consisting of an array of magnets, to produce **X-ray beams that are narrower and consequently brighter**.

- The current facilities comprise- **Sweden's MAX IV Laboratory**, **The Sirius facility is located in Campinas, Brazil**, whereas the Extremely Brilliant Source of the European Synchrotron Radiation Facility is situated in Grenoble, France.
- The location specified is the **Advanced Photon Source facility situated in Lemont, Illinois**.

About High Energy Photon Source (HEPS)

- The site for High Energy Photon Source is situated around 50 kilometers away from **Beijing in Huairou, China**.
- The High Energy Particle Synchrotron (HEPS) is specifically engineered to rapidly increase the energy of electrons up to **6 gigaelectron volts by utilizing its 36-kilometer circular storage ring**.
- HEPS, the High Energy Photon Source, will have a time resolution that is **10,000 times better** than the Shanghai Synchrotron Radiation Facility, a third-generation synchrotron in China with a circumference of 432 metres.
- HEPS will provide researchers the opportunity to utilize **14 beamlines that cater to a wide range of disciplines**, including energy, condensed matter physics, materials innovation, and biomedicine.

DIGITAL ARREST SCAMS



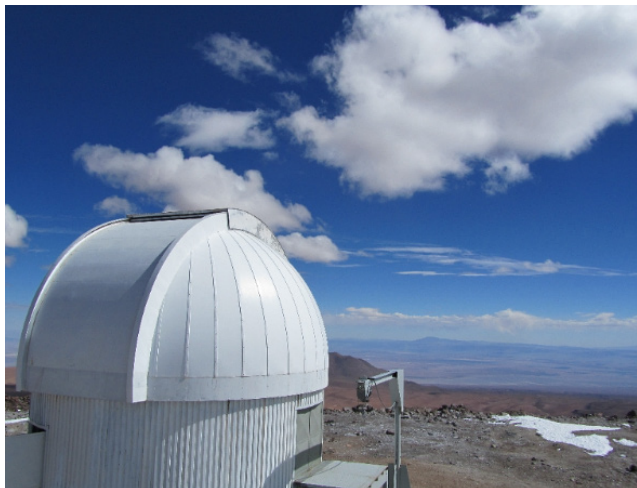
- The **Ministry of Home Affairs (MHA)** has warned against cyber criminals who pose as government agents and use **'blackmail' and 'digital arrest'**.
- These fraudulent individuals are reported to be impersonating officials from agencies like the **NCB, CBI, RBI**, as well as state and Union Territory Police, among others.

About Digital Arrests

- Incidents of **intimidation, blackmail, extortion, and what they refer to as "digital arrests"**. In such instances, cyber criminals make contact with potential victims and deceitfully alert them about packages carrying illicit commodities, **narcotics, or prohibited things**, often asserting that the victim is the intended recipient.

- These fraudsters often even claim that a **victim's family member or friend is in detention for a crime or accident**.
- Subsequently, they demand a sum of money from the victim to resolve the fabricated situation.

TOKYO ATACAMA OBSERVATORY (TAO)



- The inauguration of the University of **Tokyo Atacama Observatory (TAO)** has taken place recently.
- The TAO telescope, with a capacity of 6.5 meters in optical-infrared measurements, is located at an altitude of 18,500 feet **on Mount Chajnantor in the Atacama Desert of Chile**.
- Currently, it holds the title of **the world's highest astronomical observatory**. This elevation surpasses that of the renowned **Atacama Large Millimeter Array (ALMA)**, which stands at 16,570 feet.
- **Instruments and Research Focus:**
 - ♦ **SWIMS (Simultaneous-color Wide-field Infrared Multi-object Spectrograph):** Aimed at understanding the evolution of galaxies.
 - ♦ **MIMIZUKU (Mid-Infrared Multi-field Imager for gaZing at the UnKnown Universe):** Used to study planet formation and the origin of materials.
- The Atacama Desert is an **exceptional site for astronomical observations** on Earth because of its **elevated elevation, minimal moisture, and unobstructed skies**, which offer optimal circumstances for exploring the universe.
- **Mount Chajnantor** is situated in the **Andes Mountains in close proximity to the Atacama Desert**. The region's high elevation, thin atmosphere, and persistently arid climate create an ideal environment for monitoring a wide range of near-infrared wavelengths.
- Infrared radiation possesses a wavelength that **exceeds that of visible light but falls short of that of microwaves**.

FIRST SET OF R21/MATRIX-M MALARIA VACCINE SHIPPED TO AFRICA



- The Serum Institute of India (SII), the leading global producer and distributor of vaccines in terms of both quantity and sales, has successfully delivered the **first batch of R21/Matrix-M malaria vaccinations to eight African nations**.
- The **University of Oxford and the Serum Institute of India** collaborated in the development of this vaccine.
- In October 2021, the **World Health Organization (WHO)** recommended the use of the **RTS,S/AS01** vaccination as a preventive measure against malaria in children.
- According to the **World Malaria report 2023**, the number of malaria **cases in 2022 was 249 million**, which is slightly higher than the 247 million cases reported in 2021.
- The **African Region** experienced the **highest malaria burden in 2022**, accounting for 94% of global cases and 95% of global deaths.

PREFIRE (POLAR RADIANT ENERGY IN THE FAR-INFRARED EXPERIMENT) MISSION OF NASA



- NASA recently launched **one of two climate satellites that will monitor heat emissions at the Earth's poles**. The second satellite will be launched in the upcoming days.
- The agency's **PREFIRE (Polar Radiant Energy in the Far-InfraRed Experiment) mission** consists of two shoebox-size cube satellites, or CubeSats, that will measure the amount of heat Earth radiates into space from two of the coldest, most remote regions on the planet.

About the PREFIRE Mission

- The two PREFIRE satellites will be positioned in a nearly polar orbit, approximately **525 kilometers above the Earth's surface**.
- Their objective is to **quantify the quantity of thermal energy emitted into space by the Arctic and Antarctica**, thereby aiding scientists in comprehending the impact of this radiation on the Earth's climate.
- Every PREFIRE CubeSat is outfitted with a Thermal Infrared Spectrometer (TIRS).
- This device quantifies the quantity of infrared and far-infrared radiation discharged from the **Arctic and Antarctica**.
- The spectrometer is equipped with custom-designed mirrors and detectors that are specifically constructed to divide and quantify infrared light, thereby offering intricate data for study.
- Data from the PREFIRE mission will help researchers better **predict how Earth's ice, seas, and weather will change in a warming world**.

WHAT IS CRYONICS?

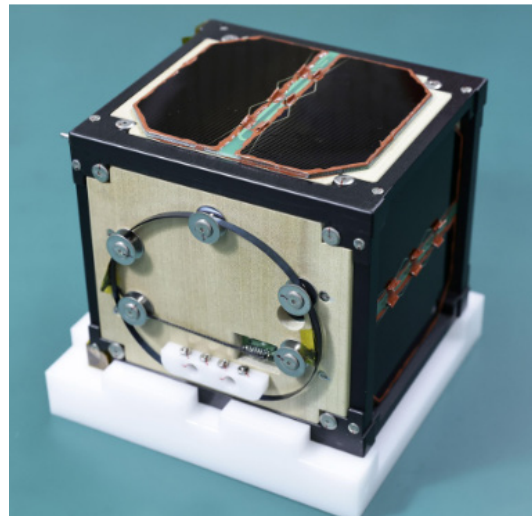


- **Southern Cryonics**, an Australian cryonics firm, **successfully performed cryopreservation** of its first client, referred to as **'Patient One'**.
- The man, in his 80s, expired at a medical facility in Sydney prior to his transfer to the Holbrook site of Southern Cryonics in New South Wales.
- There, his body was **cryogenically preserved at -196°C**, with the hope that future medical advancements might one day revive him.

About Cryonics

- **Cryonics**, the practice of freezing an individual who has died, with the object of reviving the individual sometime in the future.
- A person in such a state is **dubbed a "cryopreserved patient" because cryonicists don't consider them dead**.
- Cryonics uses extremely freezing temperatures to maintain a human beyond the reach of modern medicine for decades or centuries until future medical science can restore them to health.
- The body is sent to a cryonics facility in ice shortly after death. **Blood is drawn and replaced with cryoprotective chemicals and antifreeze**.
- While vitrified, the body is stored in a liquid nitrogen container at **-196°C** until scientists can revive it.

LIGNOSAT: WORLD'S FIRST WOODEN SATELLITE



- Researchers from Kyoto University and Sumitomo Forestry in Japan have successfully created the **world's inaugural wooden satellite, named LignoSat**.
- This small rectangular spacecraft, constructed from magnolia wood, has **dimensions of 10 cm on each side** and is scheduled to be launched aboard a SpaceX rocket in September.
- It is expected to mark a significant step toward **reducing space debris and minimizing environmental impact**.
- According to the engineers, wood will burn completely when the device re-enters the atmosphere. This will prevent the formation of metallic particles upon its return to Earth.
- Destination of the satellite is the **International Space Station (ISS)**.
- LignoSat is constructed from **magnolia wood, chosen for its durability and adaptability**.

INDIA TO HOST 2025 BWF WORLD JUNIOR BADMINTON CHAMPIONSHIPS IN GUWAHATI



- India will host the prestigious **2025 BWF World Junior Championships** at the National Centre of Excellence in Guwahati, marking a significant milestone.
- This event will be the first time India hosts the championships since 2008, showcasing the country's growing prominence in badminton.
- The tournament provides a platform for young talents worldwide to compete at the highest level, highlighting India's commitment to nurturing future badminton stars.

2026 BWF Thomas and Uber Cup Finals in Denmark

- Denmark will host the 2026 BWF Thomas and Uber Cup Finals in Horsens, following the successful 2021 edition in Aarhus.
- The hosting rights for both events were confirmed at the recent BWF Council meeting, emphasizing the organization's dedication to promoting top-level badminton globally.

Role of the Badminton World Federation (BWF)

- The BWF, established in 1934 and headquartered in Kuala Lumpur, Malaysia, is the international governing body for badminton, recognized by the International Olympic Committee.
- Under President Poul-Erik Hoyer Larsen's leadership, the BWF focuses on enhancing the sport's popularity, fostering international cooperation, and providing opportunities for players and fans to engage with badminton at the highest level.

SHYAAM NIKHIL'S FASCINATING SAGA TO BECOME INDIA'S 85TH GRANDMASTER



- **P Shyaamnikhil** from Tamil Nadu became **India's 85th Grandmaster** at the **Dubai Police Masters Chess Tournament** after securing his third GM norm.
- He needed one win and eight draws to achieve the GM title, having already met the ELO rating and two GM norms requirements.
- Shyaamnikhil's journey began in Chennai, where he earned the IM title in 2011 and secured his first GM norm at the Mumbai Mayor's Cup.

Chess Legacy in India

- Shyaamnikhil's accomplishment adds to India's rich chess legacy, following legends like Vishwanathan Anand and Koneru Humpy.
- India boasts three female GMs, including Humpy, Dronavalli Harika, and R. Vaishali, showcasing the country's chess prowess on the global stage.

Inspiration for Aspiring Players

- Shyaamnikhil's journey serves as an inspiration, highlighting the values of perseverance, dedication, and pursuit of excellence in overcoming challenges in chess and beyond.

SATWIK-CHIRAG REGAIN WORLD NUMBER ONE RANKING AFTER THAILAND OPEN TRIUMPH

- **Satwiksairaj Rankireddy** and **Chirag Shetty** won the Thailand Open 2024 men's doubles title by defeating

the Chinese pair with a scoreline of 21-15, 21-15 in a 46-minute match.



- The tournament was held in Bangkok from May 14 to May 19, 2024, at the Nimibutr Stadium.
- This victory marked their second title of the 2024 season and reinforced their status as a premier badminton pair.

Achievements and Dominance

- The Indian duo has consistently performed well in BWF Super 500 finals, winning all five they have competed in.
- Their win in Thailand earned them 9200 ranking points, bringing them closer to the world number one ranking in men's doubles.
- This victory was their eighth BWF World Tour title, showcasing their dominance in the men's doubles category.

NEERAJ CHOPRA STAR ATTRACTION AT FEDERATION MEET



- **Neeraj Chopra won the gold medal** in the men's javelin throw event at the Federation Cup 2024 with a throw of 82.27m, showcasing his prowess in his first competitive outing in India since his Olympic triumph.

Homecoming and Past Performances

- Neeraj's participation marked a significant homecoming as he last competed in India during the Federation Cup in March 2021, where he secured the gold with an 87.80m throw.

Competition and Podium Finishers

- The event saw fierce competition with DP Manu winning silver (82.06m) and Uttam Balasaheb Patil securing bronze (78.39m) in the men's javelin throw event.

Disappointments and Promising Performances

- Kishore Jena, despite securing an Olympic quota, finished fifth with a 75.49m throw. However, Bibin Antony achieved a personal best with 77.37m, securing fourth place.

Final Standings and Neeraj's Inspiration

- Neeraj Chopra's triumphant return to India and consistent performances inspire the next generation of athletes, solidifying his status as a celebrated figure in Indian athletics.

DIPA KARMAKAR SCRIPTS HISTORY, BECOMES FIRST INDIAN GYMNAST TO WIN GOLD IN ASIAN SENIOR CHAMPIONSHIPS:



- **Dipa Karmakar made history by winning the first-ever gold medal for India in any Asian Championships** in the **women's vault individual final** at the **Asian Women's Artistic Gymnastics Championships 2024 in Tashkent, Uzbekistan**.
- She scored an average of 13.566 points, securing the gold medal, while the silver and bronze medals were won by North Korean gymnasts.

Dipa Karmakar's Career Highlights

- Dipa Karmakar is a renowned Indian gymnast who won her first international medal at the 2014 Glasgow Commonwealth Games and became the first Indian woman gymnast to qualify for the Olympics in 2016.
- She also achieved a gold medal at the FIG World Cup in Mersin, Turkiye, in 2018, and a bronze at the Artistic Gymnastics World Cup in Germany in the same year.

Awards and Recognition

- Dipa Karmakar received prestigious awards like the Rajiv Gandhi Khel Ratna Award in 2016 and the Padma Shri in 2017 for her exceptional achievements in gymnastics.

PRATIMA SINGH (IRS) APPOINTED AS DIRECTOR IN DPIIT



सत्यमेव जयते
Department of Industrial Policy and Promotion
Ministry of Commerce and Industry
Government of India

Appointment of Pratima Singh in DPIIT

- **Pratima Singh**, an IRS officer, has been appointed as the Director in the **Department of Promotion of Industry and Internal Trade (DPIIT)** under the Central Staffing Scheme.
- Her selection was recommended by the Department of Revenue, highlighting the government's commitment to utilizing professionals from diverse backgrounds for industrial and trade promotion.
- **DPIIT's Mandate:** DPIIT formulates and implements policies to promote industrial growth, facilitate investment, and enhance Indian industries' competitiveness globally.

JUSTICE (RETD) SANJAY KUMAR MISHRA SWORN IN AS FIRST GST TRIBUNAL PRESIDENT



- **Retired Justice Sanjaya Kumar Mishra** appointed as President of GSTAT with a monthly salary of Rs2.50 lakh for four years.
- Appointment approved by the Appointment Committee of the Cabinet based on SCSC recommendation.

Establishment of GST Appellate Tribunal

- The Finance Ministry issued vacancy circulars for 63 judicial members and 33 Technical Members for GSTATs in Centre and States.
- Setup of 31 GSTAT benches with a Principal Bench in Delhi and additional benches in various States like Uttar Pradesh, Gujarat, Karnataka, Rajasthan, Tamil Nadu, and Maharashtra.

UNICEF INDIA APPOINTS KAREENA KAPOOR KHAN AS NATIONAL AMBASSADOR



- **Kareena Kapoor Khan** was appointed as the **National Ambassador for UNICEF India**, recognizing her long standing association and dedication to children's rights.
- Introduction of the first-ever Youth Advocates group, comprising four individuals championing diverse causes like disability inclusion, climate action, mental health awareness, and STEM innovation.

Empowerment of Youth for Positive Change

- UNICEF India's commendable step in empowering young leaders through the Youth Advocates program to drive positive change and inspire their peers.
- Recognition of the potential of youth advocates to shape policies and initiatives addressing critical challenges faced by children and youth.

Collaborative Efforts for Children's Rights

- Collaboration between Kareena Kapoor Khan and the Youth Advocates to ensure the protection of every child's rights and amplify their voices for a brighter future.
- Renewed dedication of UNICEF India towards children's rights and well-being through collective efforts of all stakeholders.

SUBODH KUMAR APPOINTED AS DIRECTOR IN MINISTRY OF AYUSH



- **Subodh Kumar**, a 2010-batch IAS officer, has been appointed as **Director in the Ministry of Ayush**.
- The appointment is effective until October 8 or until further orders, whichever is earlier.
- Kumar is currently on 'Compulsory wait' in the Ministry of Food Processing Industries.

Appointment details for Subodh Kumar

- An order issued by the Department of Personnel (DoPT) on May 3 states his selection for the position.
- He is to be released from his current assignment in the Ministry of Food Processing Industries to assume the new role in the Ministry of Ayush.

Consideration for Election-related Duty

- The order acknowledges the possibility of Kumar being engaged in election-related duties.
- If involved in such duties due to Lok Sabha elections, he should be relieved after obtaining clearance from the Election Commission of India to start his new assignment in the Ministry of Ayush.

MATRILINEAL MEGHALAYA GETS FIRST WOMAN DGP

- **Idashisha Nongrang** has been appointed as **Meghalaya's first woman Director General of Police (DGP)**, succeeding **Lajja Ram Bishnoi** on May 19, 2024.

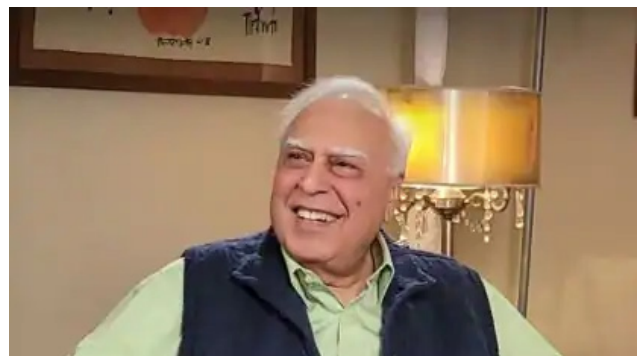


- Nongrang's appointment is culturally significant as she hails from the Khasi community, known for its matrilineal system.

Leadership and Experience of Nongrang

- Nongrang has proven leadership qualities and experience, having served as the acting DGP in 2021 and currently as the Director General of Meghalaya Civil Defence.

KAPIL SIBAL ELECTED SUPREME COURT BAR ASSOCIATION PRESIDENT



- **Kapil Sibal** was elected as **SCBA** president for the fourth time, succeeding **Adish C. Aggarwala**.
- Sibal's extensive legal experience and expertise contribute to his re-election, showcasing trust from the legal fraternity.

Succession and Transition of Power

- Sibal taking over from **Adish C. Aggarwala** signifies a democratic transition of leadership within the SCBA.

Other Office Bearers and Election Results

- **Pradeep Rai** emerged as the runner-up in the SCBA elections, highlighting the competitive nature of the process.

- Vikrant Yadav secured the position of SCBA secretary, enhancing the leadership team.
- Kapil Sibal won the election with 1,066 votes, defeating Pradeep Rai, showcasing a significant victory.

SENIOR IPS OFFICERS A.Y.V. KRISHNA, N. VENU GOPAL APPOINTED ADDITIONAL DIRECTORS IN CBI



- A Y V Krishna and N Venu Gopal have been appointed as additional directors in the **Central Bureau of Investigation (CBI)** to enhance investigative capabilities.
- A Y V Krishna, a 1995-batch IPS officer, and N Venu Gopal, a seasoned IPS officer, bring experience and expertise to their new roles.

Expectations and Challenges for the Directors

- A Y V Krishna and N Venu Gopal are expected to handle complex cases, coordinate with law enforcement agencies, and maintain high standards of integrity and professionalism as additional directors in the CBI.
- They will be instrumental in improving the efficiency and effectiveness of CBI operations in combating corruption, financial crimes, and serious offenses.

Government's Emphasis on Strengthening CBI

- The appointments of A Y V Krishna and N Venu Gopal highlight the government's commitment to strengthening the CBI and enhancing its investigative capabilities.
- Both officers are well-positioned to contribute significantly to the CBI's mission of upholding justice and fighting crime at high levels.

RUSKIN BOND AWARDED SAHITYA AKADEMI FELLOWSHIP



Ruskin Bond's Literary Achievements

- Ruskin Bond, a renowned author, was awarded the Sahitya Akademi Fellowship for his significant contributions to literature.
- He has been actively writing for over 50 years, showcasing his talent in various literary genres such as fiction, non-fiction, romance, and children's books.
- Some of his notable works include "Vagrants in the Valley," "The Blue Umbrella," and "A Flight of Pigeons," which was adapted into the Hindi film "Junoon".

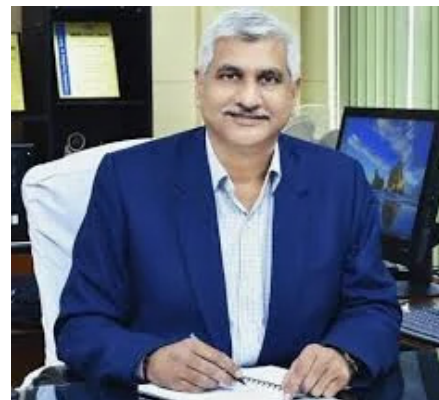
Recognition and Awards

- Ruskin Bond has received prestigious awards like the Padma Shri in 1999, Padma Bhushan in 2019, and the Sahitya Akademi Bal Sahitya Puraskar in 2012 for his literary contributions.

Popularity and Adaptations

- His stories have been adapted into TV serials like "Ek Tha Rusty" and included in school curriculums in India, showcasing his widespread popularity and influence on literature.
- Additionally, his children's novel "The Blue Umbrella" was made into a film in 2005, further highlighting his impact on different forms of media.

GOVERNMENT APPOINTS SHRI RAMESH BABU V AS MEMBER IN CENTRAL ELECTRICITY REGULATORY COMMISSION



- **Shri Ramesh Babu V.** took the oath as a Member of CERC on May 21, 2024, after serving as the **Director (Operations)** at NTPC.
- His educational background includes a M.Tech. degree in Thermal Engineering and a B.Tech. degree in Mechanical Engineering.

Role of CERC in the Indian Power Sector

- CERC is the central regulatory body for the Indian power sector, established under the Electricity Regulatory Commissions Act, 1998.
- It plays a crucial role in ensuring a sustainable, reliable, and affordable supply of electricity to consumers across the country.

Composition and Structure of CERC

- The Commission consists of a Chairperson and three Members.

Significance of CERC in Addressing Energy Demand

- With the increasing energy demand in the nation, CERC's role becomes more pivotal in meeting the electricity needs of consumers effectively.

SCIENTIST SRINIVAS KULKARNI HONOURED WITH 2024 SHAW PRIZE IN ASTRONOMY



- **Srinivas R. Kulkarni, an Indian-origin U.S. scientist,** received the prestigious **Shaw Prize in Astronomy** for 2024.
- The award recognizes Kulkarni's groundbreaking discoveries in astronomy, focusing on millisecond pulsars, gamma-ray bursts, supernovae, and other transient astronomical phenomena.

Illustrious Career and Leadership of Srinivas R. Kulkarni

- Kulkarni has a distinguished career in astronomy with decades of pioneering research and leadership roles.
- He obtained his M.S. from the Indian Institute of Technology and Ph.D. from the University of California, with notable achievements including serving as the director of Caltech Optical Observatories.

Significance of the Shaw Prize

- The Shaw Prize, established by Hong Kong philanthropist Run Run Shaw, honors scientific excellence in Astronomy, Life Science and Medicine, and Mathematical Sciences with a monetary award of 1.2 million for each category.

Global Impact of Indian-origin Scientists

- The award to Kulkarni underscores the significant impact of Indian-origin scientists on the global scientific community.

JENNY ERPENBECK'S 'KAIROS' WINS THE INTERNATIONAL BOOKER PRIZE 2024



- **German author Jenny Erpenbeck** and translator **Michael Hofmann** won the International Booker Prize for their novel "**Kairos**".
- The novel portrays a tangled love affair in East Germany's final years, capturing personal and national transformations.

Recognition of Literary Excellence

- The International Booker Prize honors translated fiction that showcases literary excellence and is published in the UK or Ireland.
- The prize money of PS50,000 is split equally between the author and translator, acknowledging their collaborative efforts in bringing global literature to English readers.

Celebration of Diverse Voices

- The award highlights the importance of literary translators and aims to elevate fiction from various languages, celebrating the rich diversity of global literature.

Spotlight on East German History

- “Kairos” sheds light on the experiences of East Germans during the GDR’s dissolution, reflecting the optimism and subsequent unraveling of the communist state.

INDIAN PEACEKEEPER RADHIKA SEN TO GET UN AWARD FOR GENDER ADVOCACY



- **Major Radhika Sen, an Indian military peacekeeper**, received the 2023 United Nations Military Gender Advocate of the Year Award for her dedication to promoting UN Security Council resolution 1325 on women, peace, and security.

Achievements During Deployment

- Major Sen served as the Commander of MONUSCO’s Engagement Platoon, leading mixed-gender patrols and activities to build trust with conflict-affected communities, providing education and training, and empowering women to advocate for their rights.

Role in Gender-Sensitive Peacekeeping

- Major Sen acted as a role model by creating a safe space for men and women to work together sensitively to gender and sociocultural norms, enhancing trust and mission success.

Legacy and Inspiration

- Major Sen’s commitment to gender-sensitive peacekeeping sets an inspiring example for future peacekeepers, leaving a lasting impact on the communities she served and the principles she upheld.

INTERNATIONAL LABOUR DAY

International Labour Day, also known as **May Day** or **Workers' Day**, is celebrated on **Wednesday, May 1st, 2024**.

This annual observance honours the **contributions and achievements of workers worldwide and promotes their rights and opportunities**.

The origins of Labour Day trace back to the late 19th century when trade unions and socialist groups designated May 1st as a day to support workers' demands for:

- Better working conditions
- Fair wages
- Shorter working hours

A pivotal moment in labour history occurred on May 1st, 1886, in the United States:

- Labour unions initiated a strike advocating for an eight-hour workday.
- The strike culminated in the tragic events of Haymarket Square in Chicago on May 4th, 1886:
 - ♦ A peaceful rally turned violent.
 - ♦ Resulted in casualties among civilians and police officers.

WORLD THALASSAEMIA DAY

Observed annually on **May 8th**, **World Thalassaemia Day** aims to:

- Raise global awareness about this genetic disorder.
- Support those affected and their caregivers.
- Promote research for a cure.
- Dispel myths surrounding the disease.

This year's theme is: **"Empowering Lives, Embracing Progress: Equitable and Accessible Thalassaemia Treatment for All"**.

WORLD RED CROSS DAY

May 8th is observed as **World Red Cross and Red Crescent Day**.

This global day celebrates the **uniqueness and unity** of the **International Red Cross and Red Crescent Movement**.

It is a time to **recognise the spirit of humanitarianism**.

The day honours individuals who make a difference in their communities.

The theme of World Red Cross and Red Crescent Day:

- This year's theme is **"Keeping Humanity Alive"**.
- The theme calls to celebrate those who give their time, and sometimes their lives, to:
 - ♦ Ease the suffering of others.
 - ♦ Protect inherent human dignity.

WORLD PRESS FREEDOM DAY 2024

World Press Freedom Day is observed on May 3rd.

This event honours the fundamental principles of press freedom and journalists' vital role in informing the public.

Date and Theme

- The theme for 2024 is **"A Press for the Planet: Journalism in the Face of the Environmental Crisis"**.
- The theme underscores the critical role of journalism and freedom of expression in:
 - ♦ Addressing the global environmental crisis.
 - ♦ Driving meaningful action on pressing environmental issues.

NATIONAL ENDANGERED SPECIES DAY

- **Theme: Celebrate Saving Species**
- National Endangered Species Day is a **global observance designed to raise awareness about the threats faced by endangered species**, such as the majestic **Bengal Tiger**, due to human activities.
- It underscores the **importance of conservation efforts**.
- This day is not just about education but also about inspiring action.
- It's a call to each one of us to play our part in safeguarding these **endangered species, reminding us that our actions can make a difference**.
- This significant day falls on the **third Friday of May each year**, reminding us of the ongoing urgency and importance of wildlife preservation.

RABINDRANATH TAGORE JAYANTI 2024

- **Rabindranath Tagore Jayanti 2024**, also known as Rabindra Jayanti, **falls on May 8th**.
- It commemorates the birth anniversary of Rabindranath Tagore, the Nobel laureate and cultural icon.

- Tagore was born on **May 7, 1861, in Kolkata to Debendranath Tagore and Sarada Devi.**
- His influence extends across literature, music, and art worldwide.
- Celebrated on Wednesday, **May 8th**, according to the Bengali calendar.
- This occasion honors Tagore's enduring legacy and contributions to Bengali culture and beyond.

INTERNATIONAL DAY OF UNITED NATIONS PEACEKEEPERS

International Day of United Nations Peacekeepers is celebrated annually on **May 29th**.

It honours **the extraordinary contributions of peacekeepers towards international peace and security.**

Since the first UN peacekeeping mission was established **in 1948**, more than two million peacekeepers have served in 71 missions.

Current Peacekeeping Missions and Their Impact

- Over **76,000 peacekeepers** from more than **120 countries** are deployed across **11 global operations.**
- Their hard work and commitment help foster peace and stability for millions affected by conflict.
- Despite evolving challenges, peacekeepers remain steadfast in:
 - ♦ Safeguarding civilians.
 - ♦ Saving and transforming lives.
 - ♦ Promoting peace.

WORLD HUNGER DAY 2024

World Hunger Day is observed annually on **May 28th**.

It aims to **raise awareness** about the urgent issue of **global hunger**.

The day acknowledges the millions suffering from **malnutrition**.

It emphasises the need for sustainable solutions to **end hunger for good**.

History of World Hunger Day

- Established in **2011 by The Hunger Project**, a global organisation dedicated to ending hunger and poverty.
- Serves as a platform to advocate for **sustainable solutions addressing the root causes of hunger.**
- Aims to promote food security and empower communities.

ANTI-TERRORISM DAY 2024

India observes **Anti-Terrorism Day** on **May 21st**.

It commemorates the assassination of former Prime Minister Rajiv Gandhi by a suicide bomber from the **Liberation Tigers of Tamil Eelam (LTTE)**, a **terrorist organisation** based in Sri Lanka.

The day serves as a reminder of the devastating consequences of terrorism.

It emphasises the need for vigilance against such threats.

Background

- On May 21, 1991, during an election campaign rally at **Sriperumbudur near Chennai**, Rajiv Gandhi was assassinated by **a suicide bomber named Kalaivani Rajaratnam alias Dhanu, a member of the LTTE.**
- The tragic event led the P.V. Narasimha Rao-led Congress government, which came to power after the 1991 election, to declare May 21st as Anti-Terrorism Day.
- The first observance of Anti-Terrorism Day took place on May 21, 1992.

Practice Set

1. Consider the following statements about “Pattachitra Paintings”:
 1. It belongs to Bengal.
 2. It is a type of cloth-based painting.Which of the above statements are true?
 - (a) 1 only (b) 2 only
 - (c) Both 1 and 2 (d) None
2. Which of the following pairs is correctly matched in the context of traditional Ajrakh prints?
 - (a) Blue - Land and fire
 - (b) Red - Sky
 - (c) White - Stars
 - (d) Green - Sky
3. Which river is the Giza Plateau located near?
 - (a) Nile River (b) Amazon River
 - (c) Euphrates River (d) Tigris River
4. Where are the Kadars primarily located?
 - (a) Along the hilly border between Cochin in Kerala and Coimbatore in Tamil Nadu
 - (b) In the deserts of Rajasthan
 - (c) Along the coastal regions of Maharashtra
 - (d) In the plains of Punjab
5. Consider the following about Virupaksha Temple:
 1. It is situated on the bank of the river Tungbhadra.
 2. It was built at the 7th century AD. Which of the above statements are true?
 - (a) 1 only (b) 2 only
 - (c) Both 1 and 2 (d) None
6. Hangor Class Submarines is related to which of the following countries?
 - (a) Pakistan (b) Russia
 - (c) Japan (d) None
7. Which organization developed and designed the SMART system?
 - (a) Indian Space Research Organisation (ISRO)
 - (b) Defence Research and Development Organisation (DRDO)
 - (c) Bharat Dynamics Limited (BDL)
 - (d) Hindustan Aeronautics Limited (HAL)
8. What is the Supersonic Missile-Assisted Release of Torpedo (SMART) system recently tested by the Defence Research and Development Organisation (DRDO) designed to do?
 - (a) Launch heavy torpedoes to target surface ships located within a short range.
 - (b) Launch lightweight torpedoes capable of targeting submarines located hundreds of kilometres away, extending beyond conventional torpedo range.
 - (c) Deploy anti-aircraft missiles to intercept enemy aircraft at high altitudes.
 - (d) Release reconnaissance drones for surveillance over large areas.
9. High Mobility Artillery Rocket Systems (HIMARS) was recently in the news. Consider the following statements about HIMARS:
 1. It was developed by the United States of America.
 2. Intended to engage and defeat artillery, air defence concentrations, trucks, light armour, personnel carriers, and support troop and supply concentrationsWhich of the above statements are true?
 - (a) 1 only (b) 2 only
 - (c) Both 1 and 2 (d) None
10. Which of the following statements correctly describes an aspect of Air Independent Propulsion (AIP) for submarines?
 - (a) Traditional diesel-electric submarines could operate underwater indefinitely without surfacing.
 - (b) AIP technology primarily uses gasoline engines powered by compressed air for underwater propulsion.
 - (c) AIP systems significantly increase underwater endurance and reduce noise levels, making submarines harder to detect.
 - (d) Nuclear submarine propulsion plants are typically less powerful than AIP sources, providing only around 10 percent of the power of conventional power plants.
11. What is the primary purpose of the Hermes-900 drones, also known as Drishti-10, being acquired by the Indian Army and Navy?
 - (a) Intelligence gathering
 - (b) Providing over-the-horizon surveillance capabilities.

- (c) Area dominance
(d) All of the above
12. What is the primary focus of the Glide Phase Interceptor (GPI) Project, involving collaboration between Japan and the U.S.?
- (a) Developing advanced communication systems for subsonic and supersonic missiles.
(b) Researching the atmospheric effects of hypersonic weapons.
(c) Developing a hypersonic missile-intercepting system.
(d) Enhancing the propulsion systems of supersonic fighter jets.
13. Consider the following statements about Exercise Shakti:
1. It is conducted between India and France.
 2. It was held in Umroi, Meghalaya.
- Which of the above statements are true?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) None
14. Which of the following regions was INS Tarkash conducted?
- (a) Kolkata (b) Jaipur
(c) Pune (d) Delhi
15. Consider the following statements about Booker Prize:
1. Jenny Erpenbeck and Michael Hofmann won the International Booker Prize for their novel "Kairos".
 2. It was started in the year 1969.
 3. It is given in the field of Medicine.
- Which of the statements given above is/are correct?
- (a) 1 and 3 (b) 2 and 3
(c) 1 and 2 (d) 1, 2 and 3
16. What is the primary purpose of the Shinku La tunnel project?
- (a) To boost the economy of Zaskar valley.
(b) To reduce travel time between Himachal Pradesh and Ladakh
(c) To make the Zaskar valley accessible 365 days a year.
(d) All of the above
17. Recently in news, which of the following has introduced Phi-3, the smallest AI model?
- (a) Google (b) Apple
(c) Microsoft (d) Samsung
18. Which of the following launched the Pharma Research in AyurGyan And Techno Innovation (PRAGATI-2024)?
- (a) Council of Scientific and Industrial Research (CSIR)
(b) Indian Council of Medical Research (ICMR)
(c) Indian Council of Agricultural Research (ICAR)
(d) Central Council for Research in Ayurvedic Sciences (CCRAS)
19. Recently seen in news, what are Lipulekh, Kalapani, and Limpiyadhura?
- (a) Disputed areas between India and China
(b) Disputed areas between India and Pakistan
(c) Disputed areas between India and Bangladesh
(d) Disputed areas between India and Nepal
20. What was the main focus of the 5th Joint Group of Customs (JGC) meeting between India and Bhutan held in Leh, Ladakh in May 2024?
- (a) Promoting cultural exchanges between the two nations
(b) Strengthening bilateral ties and trade facilitation
(c) Discussing global economic policies
(d) Addressing environmental sustainability issues
21. Consider the following statements United Nations Counter-Terrorism Trust Fund:
1. The Fund accepts contributions from only the Governments of various countries.
 2. India has donated \$500,000 to the United Nations Counter-Terrorism Trust Fund.
- Select the correct answer from the codes given below:
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
22. How many of the following countries have officially recognised Palestine state:
1. Ireland
 2. Germany
 3. Norway
 4. Spain
- Select the correct answer from the codes given below:
- (a) 1 (b) 2
(c) 3 (d) 4
23. Consider the following statements with reference to KAVACH system:
1. It is an Automatic Train Protection (ATP) System for Indian Railways.
 2. It is developed by the Research Design and Standards Organisation (RDSO)
- Which of the above statements is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
24. Recently seen in news, what are Tislelizumab and Zanubrutinib related to?
- (a) They are drugs to treat cancer
(b) They are extinct species of butterfly
(c) They are new specie of earthworm found in Western Ghats
(d) They are two new viral diseases

25. Which of the following is a key objective of the eMigrate project?
1. To make the emigration process online and seamless.
 2. To bring foreign employers, recruitment agents and insurance companies on one platform.
 3. To promote safe and legal migration.
- Select the correct answer from the codes given below:
- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3
26. Which of the following organisations has been recently granted 'Navratna' status by the Department of Public Enterprises?
- (a) LIC Housing Finance Limited
 - (b) Indian Renewable Energy Development Agency
 - (c) Muthoot Finance
 - (d) Aditya Birla Finance Limited
27. Which of the following islands is home to the Shompen tribe?
- (a) Strait Island
 - (b) Great Nicobar Island
 - (c) Little Nicobar Island
 - (d) Sentinel Island
28. Consider the following statements with reference to CPGRAMS:
1. It has been developed by The National Informatics Centre in collaboration with the Ministry of Personnel, Public Grievances & Pensions.
 2. It aims to enable submission of grievances by the aggrieved citizens from anywhere and anytime to Ministries who scrutinize and take action for speedy and favorable redress of these grievances.
- Which of the following statements is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
29. Which of the following is included in the 'Bima Trinity' of Bima Vistaar Policy?
- (a) Bima Vishraam, Bima Sugam and Bima Vahak
 - (b) Bima Vistaar, Bima Sukanya and Bima Vahak
 - (c) Bima Vistaar, Bima Sugam and Bima Vimaan
 - (d) Bima Vistaar, Bima Sugam and Bima Vahak
30. What is the primary objective of AI Krish and AI Bhoomi launched by Doordarshan Kisan?
- (a) To provide information on various kharif crops
 - (b) To promote balanced farming, animal husbandry, and plantation
 - (c) To educate farmers about horticulture crops
 - (d) To provide information on agricultural research and market trends
31. Recently seen in news, what is the aim of Mission ISHAN?
- (a) To ensure high coverage of children and pregnant women
 - (b) To refine and strengthen air traffic management (ATM)
 - (c) To allocate 1.6 Crore LPG Connections to rural women
 - (d) To ensure that power distribution companies (DISCOMs) make timely payments to power generators
32. Which of the following has launched Pharma Research in AyurGyan And Techno Innovation (PRAGATI-2024)?
- (a) The Council of Scientific & Industrial Research (CSIR)
 - (b) Central Council for Research in Ayurvedic Sciences (CCRAS)
 - (c) National Ayurvedic Medical Association
 - (d) National Institute of Ayurveda
33. Which country has inaugurated the High Energy Photon Source (HEPS)?
- (a) Japan (b) Iran
 - (c) China (d) Russia
34. Consider the following statements with reference to Tokyo Atacama Observatory (TAO):
1. It's primary objective is to understand the nature of the Universe and the origin of life
 2. It is located at an altitude of 18,500 feet on Mount Chajnantor in Chile.
 3. It is a 6.5 meters optical-infrared telescope.
- How many of the above statements is/are correct?
- (a) Only one (b) Only two
(c) All three (d) None
35. In which state Sonai Rupai Wildlife Sanctuary is situated?
- (a) Manipur (b) Odisha
 - (c) Assam (d) Kerala
36. What is the composition of the exoplanet 55 Cancri e?
- (a) Gas Giant (b) Rocky
 - (c) Ice Giant (d) Liquid Giant
37. Consider the following statements about Remal Cyclone:
1. The name of cyclone 'Remal' that formed in the Arabian Sea was chosen by Oman.
 2. It is a temperate cyclone.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

38. What inspired the name of the new marine tardigrade species, *Batillipes chandrayaan*?
- The name of a famous Indian marine biologist
 - The Chandrayaan-3 moon mission
 - The name of the research vessel used for the discovery
 - The region where it was found
39. Consider the following statements:
- The traditional artisans of 'Kutch Ajrakh' have been honored with a Geographical Indication (GI) certificate, acknowledging their rich cultural heritage.
 - Ajrakh is a revered textile craft in Gujarat, involving hand-block printing on cotton cloth with intricate designs and historical symbolism. Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
40. Who has received the 2023 United Nations Military Gender Advocate of the Year Award?
- Major Suman Gawani
 - Major Radhika Sen
 - Major Madhuri Kanitkar
 - Major Radha Bhasin
41. What is the significance of the Sahitya Akademi Fellowship awarded to Ruskin Bond recently?
- It is the highest literary honor in India.
 - It recognizes his contributions across various genres, including short stories, children's books, novels, and autobiographical works.
 - It is the first time a British-Indian author has been awarded the fellowship.
 - Both (a) and (b)
42. Who has been elected as the Supreme Court Bar Association president?
- Kapil Sibal
 - Adish C. Aggarwala.
 - A Y V Krishna
 - Shri Ramesh Babu V
43. Which of the following persons is appointed as the President of GST Tribunal?
- Subodh Kumar
 - Sanjaya Kumar Mishra
 - Pratima Singh
 - Kapil Sibal
44. Who has made history by winning the first-ever gold medal for India in any Asian Championships in the women's vault individual final at the Asian Women's Artistic Gymnastics Championships 2024 in Tashkent, Uzbekistan?
- Dipa Karmakar
 - Pranati Nayak
 - Ashish Kumar
 - Emma Malabuyo
45. Where will the 2025 BWF World Junior Championships be held?
- Pune
 - Guwahati
 - Hyderabad
 - Delhi
46. What is India's ranking in the World Press Freedom Index?
- 150th
 - 158th
 - 159th
 - 160th
47. Which of the following countries has become India's largest trading partner in FY 2023-24?
- China
 - USA
 - Japan
 - Russia
48. Consider the following statements:
- The Cost Inflation Index (CII) for FY 2023-24 is 338.
 - The purpose of the Cost Inflation Index is to calculate long-term capital gains.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
49. Recently, which country has decided to introduce a new currency note featuring Indian territories?
- Pakistan
 - Nepal
 - Bhutan
 - Sri Lanka
50. What is the name of the park where the prehistoric artifacts were discovered?
- Kanha National Park
 - Pench National Park
 - Madhav National Park
 - Ghugwa National Fossil Park

Answer Key

- | | | | | | | | | | |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1. (c) | 2. (c) | 3. (a) | 4. (a) | 5. (c) | 6. (a) | 7. (b) | 8. (b) | 9. (c) | 10. (c) |
| 11. (d) | 12. (c) | 13. (c) | 14. (a) | 15. (c) | 16. (d) | 17. (c) | 18. (d) | 19. (d) | 20. (b) |
| 21. (b) | 22. (c) | 23. (c) | 24. (a) | 25. (d) | 26. (b) | 27. (b) | 28. (c) | 29. (d) | 30. (d) |
| 31. (b) | 32. (b) | 33. (c) | 34. (c) | 35. (c) | 36. (b) | 37. (d) | 38. (b) | 39. (c) | 40. (b) |
| 41. (d) | 42. (a) | 43. (b) | 44. (a) | 45. (b) | 46. (c) | 47. (a) | 48. (b) | 49. (c) | 50. (d) |

Solution

1. (c) Explanation:

- **Patachitra, or Pattachitra**, refers to traditional **cloth-based scroll paintings** from Odisha and West Bengal in eastern India.
- Known for intricate details and mythological narratives, as well as folktales. Most paintings depict stories of Hindu deities.
- One of Odisha's ancient artworks, it was originally created for ritual use and as souvenirs for pilgrims to Puri and other temples in Odisha. Cotton sarees are layered with tamarind paste and coated with clay powder. Traditionally, cotton canvas was used; now, both cotton and silk are used.
- After the canvas is sturdy, colours are applied directly without initial sketches. The borders of the painting are completed first.

2. (c) Explanation:

- "Ajrakh" originates from 'Azrak', meaning indigo, a prominent dye used to achieve a bluish effect in the prints.
- Traditionally, Ajrakh prints feature three colours:
 - ♦ Blue symbolising the sky,
 - ♦ Red symbolising the land and fire,
 - ♦ White symbolising the stars.

3. (a) Explanation:

- The Giza Plateau is located near the Nile River.
- Specifically, it is situated about five miles west of the Nile River, near Cairo, Egypt.
- The Nile River, the longest river in the world, has historically been crucial to the development of ancient Egyptian civilization, providing a source of irrigation, transportation, and sustenance.
- The Giza Plateau is renowned for its ancient monuments, including the Great Pyramids and the Sphinx, which were constructed by the ancient Egyptians who thrived along the banks of the Nile.

4. (a) Explanation:

- The Kadars are a traditional forest-dwelling indigenous community primarily situated along

the hilly border between Cochin in Kerala and Coimbatore in Tamil Nadu.

- This geographical region is characterized by its dense forests and hilly terrain, providing the natural environment that supports the Kadar's traditional lifestyle and sustenance activities.
- The other options, such as the deserts of Rajasthan, the coastal regions of Maharashtra, and the plains of Punjab, do not match the typical habitat of the Kadars and their way of life, which is closely tied to forest ecosystems.

5. (c) Explanation:

Aspect	Description
Name	Virupaksha Temple
Deity	Dedicated to Lord Virupaksha, a form of Lord Shiva
Location	Hampi, Vijayanagara district, Karnataka, India
Situated	Southern bank of the Tungabhadra River
History	<ul style="list-style-type: none"> • Established in the 7th century AD • One of India's oldest functioning temples
Expansion	<ul style="list-style-type: none"> • Originally a small shrine, expanded during Vijayanagara reign • Additions made during Chalukyan and Hoysala eras
Architecture	South Indian architectural style
Features	<ul style="list-style-type: none"> • Sanctum sanctorum • Pillared halls, including one with 100 pillars • Antechambers, grand gopurams • Smaller shrines, temple kitchen, administrative offices

Gopurams	<ul style="list-style-type: none"> • Three gopurams • Largest: Eastern gopuram (nine storeys, 50 meters tall) • Other two: Smaller gopurams on inner east and inner northern sides
Sculptures	Beautiful sculptures of Hindu Gods adorn outer faces of the gopurams
Unique Feature	Inverted pinhole image of the tower present on the inner wall

6. (a) **Explanation:**

- China has launched the first of eight Hangor-class submarines for Pakistan.
- The Hangor class is a diesel-electric attack submarine.
- The size and Displacement of the Hangor class is 2,800 tons.
- Indian Navy's Kalvari class is 1,775 tons Hangor class: Equipped with Air Independent Propulsion (AIP)
- Kalvari class: AIP planned for installation on INS Kalvari in 2024

7. (b) **Explanation:**

The **Defence Research and Development Organisation (DRDO)** is responsible for the development and design of the SMART system. DRDO is India's premier defense research and development organization, dedicated to enhancing the country's defense capabilities through indigenous technological advancements.

The SMART system, short for Supersonic Missile-Assisted Release of Torpedo, is a next-generation torpedo release system developed by DRDO.

It is designed to be deployed from various platforms to effectively engage underwater targets.

8. (b) **Explanation:**

- The Defence Research and Development Organisation (DRDO) recently tested the **next-generation torpedo release system**.
- It is the **Supersonic Missile-Assisted Release of Torpedo (SMART) System**.
- The missile-based mechanism aims to **launch lightweight torpedoes capable of targeting submarines located hundreds of kilometres away**, extending beyond conventional torpedo range.

9. (c) **Key Concept:**

- Recently, the Russian government released new footage alleging the targeting of two Ukrainian

High Mobility Artillery Rocket Systems (HIMARS), coinciding with the authorisation of a substantial increase in military aid for **Ukraine by the U.S.**

• **Explanation:**

Type	Light, multiple rocket launcher.
Manufacturer	Manufactured by Lockheed Martin Corporation, a US-based security and aerospace company .
Purpose	Intended to engage and defeat artillery, air defence concentrations, trucks, light armor, personnel carriers, and support troop and supply concentrations .

10. (c) **Explanation:**

A. **Traditional diesel-electric submarines could operate underwater indefinitely without surfacing.**

This statement is incorrect. Traditional diesel-electric submarines must surface frequently to charge their batteries, limiting their underwater endurance to only a few days.

B. **AIP technology primarily uses gasoline engines powered by compressed air for underwater propulsion.**

This statement is incorrect. The early Pochtovy submarine used this method, but current AIP systems typically involve other methods such as fuel cells, Stirling engines, and closed-cycle engines.

C. **AIP systems significantly increase underwater endurance and reduce noise levels, making submarines harder to detect.**

This statement is correct. AIP systems generate electricity to power electric motors or recharge batteries without surfacing frequently. This significantly increases underwater endurance and reduces noise levels, providing a strategic advantage by making submarines harder to detect.

D. **Nuclear submarine propulsion plants are typically less powerful than AIP sources, providing only around 10 per cent of the power of conventional power plants.**

This statement is incorrect. Nuclear submarine propulsion plants are much more powerful than AIP sources. Conventional power plants typically provide around 3 megawatts, while AIP sources offer about 10 per cent, and nuclear plants exceed 20 megawatts.

11. (d) **Explanation:**

- The Indian Army and Navy are set to enhance their surveillance capabilities by acquiring **Hermes-900 drones**, also known as **Drishti-10**.
- These **next-generation Medium Altitude Long Endurance (MALE) unmanned aerial systems** offer over-the-horizon, persistent multi-mission capabilities.
- With a payload carrying capacity of **350 kg**, the Hermes-900 is well-suited for various tasks, including area dominance, intelligence gathering, and ground support.

12. (c) **Explanation:**

- The **Glide Phase Interceptor (GPI) Project** collaborates with **Japan and the U.S.** to develop a **hypersonic missile-intercepting system**.
- Hypersonic weapons travel **between 5 and 25 times the speed of sound**.
- Weapons travelling below these speeds are classified as **subsonic or supersonic**.
- At speeds above the **hypersonic range**, **atmospheric molecules disassociate into plasma**, complicating control and communication.
- Hypersonic missiles enter the glide phase after separating from boosters at the peak of their trajectory.

13. (c) **Explanation:**

- **India and France** have commenced the 7th edition of the **India-France Joint Military Exercise SHAKTI in Umroi, Meghalaya**.
- **Exercise SHAKTI** is a biennial training event that alternates between **India and France**.
- The last edition was held in France in November 2021.
- Objectives of Exercise SHAKTI include:
 - ♦ Achieving physical fitness.
 - ♦ Refining tactical operations.
 - ♦ Exchanging best practices.

14. (a) **Explanation:**

- The India-U.S. joint exercise on coordinated operations in urban counter-terrorism contingencies will conclude in Kolkata.
- **Exercise Tarkash:**

Exercise	Details
Name	Indo-U.S. Joint Counter-Terrorism Exercise (Exercise Tarkash)
Edition	Seventh

Exercise	Details
Name	Indo-U.S. Joint Counter-Terrorism Exercise (Exercise Tarkash)
Participants	Elite National Security Guard (NSG) and U.S. Special Operations Forces (SOF)
Start Date	April 22, 2024
Previous Edition	Conducted in Chennai in January 2023
Activities	Intense training and mock drills in urban counter-terrorism scenarios

15. (c) **Explanation:**

- **German author Jenny Erpenbeck** and translator **Michael Hofmann** won the International Booker Prize for their novel "Kairos".
- In **1969**, the inaugural Booker Prize was awarded to P.H. Newby for his novel Something to Answer For.
- Man Booker prize is a 'Man Group' sponsored prize given in the field of **literature from 1969**. It is the **highest literary award** given to the authors of **British, Irish, and Commonwealth countries**.

16. (d) **Explanation:**

- **Shingo La (also known as Shinku La)** is a mountain pass in India, on the state boundary between **Ladakh and Himachal Pradesh**.
- **Border Road Organisation** will soon commence the construction of the 4.1 km long Shinku La tunnel.
- Once completed, this tunnel will become the **world's highest tunnel at 15,800 ft, surpassing Mila tunnel in China**.

17. (c) **Explanation:**

- Microsoft has **launched PHi-3**, the **smallest AI model** and has characterized it as a **collection of accessible AI models** that are the most proficient and economical small language models (SLMs) currently accessible. Phi-3-Mini is considered to be the **first among the three tiny versions that Microsoft** will eventually launch. It has demonstrated superior performance compared to models of similar and larger sizes in many benchmarks, including **language, reasoning, coding, and mathematics**.

18. (d) **Explanation:**

- The Central Council for Research in Ayurvedic Sciences (CCRAS), an autonomous body under

the Union Ministry of Ayush, has launched “PRAGATI- 2024” (Pharma Research in AyurGyan And Techno Innovation).

- It offers a very useful opportunity for collaborative research in the field of Ayurveda.
- The aim of CCRAS is to reach each stakeholder and therefore we have started giving scholarships so that students understand the importance of research.
- The CCRAS is an autonomous body of the Ministry of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy).

19. (d) Key Concept: Places in the news

Explanation:

- The India-Nepal border dispute involves a 372-square-kilometer region encompassing Limpiadhura, Lipulekh, and Kalapani, located at the trijunction of India, Nepal, and China in Uttarakhand’s Pithoragarh district.
- Four years after diplomatic relations between India and Nepal deteriorated due to Nepal’s inclusion of the districts of Kalapani, Lipulekh, and Limpiyadhura in its new map, the administration in Kathmandu has made the decision to release a Rs-100 currency note that portrays the country’s map with the areas currently under Indian sovereignty.

20. (b) Key Concept: International relations

Explanation:

- The 5th Joint Group of Customs (JGC) meeting between India and Bhutan was held on 6th-7th May, 2024 in Leh, Ladakh.
- The 5th JGC meeting discussed bilateral issues like opening new Land Customs Stations and notifying new trade routes, infrastructure development, automation and digitisation of transit processes, smuggling prevention, coordinated cross-border management, pre-arrival Customs data exchange, bilateral Customs cooperation agreement, and electronic cargo system transit cargo movement.
- The India-Bhutan Joint Group of Customs meets annually to explore redefining and reengineering Customs procedures, promoting cooperation, and facilitating cross-border trade according to global best practices.

21. (b) Key Concept: International relations

Explanation:

- India has donated \$500,000 to the U.N. Counter-Terrorism Trust Fund, demonstrating

its steadfast dedication to assisting collective endeavors in the worldwide battle against the menace of terrorism. India has currently contributed a total of \$2.55 million to the trust fund.

• About United Nations Counter-Terrorism Trust Fund:

- It was founded in 2009 and then integrated into the UN Office of Counter-Terrorism (UNOCT) in 2017.
- The primary objective of the UN Counter-Terrorism Trust Fund (UNCTTF) is to provide assistance to worldwide initiatives aimed at combating terrorism.
- The Fund accepts contributions from Governments, inter-governmental and non-governmental organizations, private institutions and individuals.

22. (c) Key Concept: Interantional News

Explanation:

- Norway, Ireland and Spain formally recognise the state of Palestine. Now 146 out of 193 UN members recognise Palestine.
- This will increase diplomatic relations between the Palestinian Authority and the three countries and isolate Israel.
- Among the G20, nine countries (Argentina, Brazil, China, India, Indonesia, Russia, Saudi Arabia, South Africa, and Turkey) have recognized Palestine as a state, while ten countries (Australia, Canada, France, Germany, Italy, Japan, Mexico, South Korea, the United Kingdom, and the United States) have not.

23. (c) Key Concept: Mou and Agreements

Explanation:

- RailTel Corporation of India Limited has signed a Memorandum of Understanding (MoU) with Quadrant FutureTek Limited, previously known as Quadrant Cables Private Ltd., in order to improve train safety in India and globally.
- The purpose of this strategic cooperation is to investigate and deploy the indigenous automatic train protection system, KAVACH, in India and other international markets.

About the KAVACH System

- KAVACH is an indigenously developed Automatic Train Protection (ATP) System for Indian Railways.
- Main Function of Kavach: It is designed to automatically bring a train to a halt when it notices another train on the same line within a prescribed distance.

- Developed by the **Research Design and Standards Organisation (RDSO)** of the Ministry of Railways in collaboration with Indian industry.

24. (a) Key Concept: Science and technology

Explanation:

- Glenmark, a pharmaceutical company, has **entered into an exclusive partnership with BeiGene** to market and distribute its **oncology drugs, Tislelizumab and Zanutrutinib, in India.**
- Glenmark will be responsible for locally required development, registration and distribution providing access to **BeiGene's oncology medicines for cancer patients across India.**
- **About Tislelizumab and Zanutrutinib:**
- Tislelizumab is a **new monoclonal antibody that targets the programmed cell death protein 1 (PD-1)** and is used to treat advanced or metastatic esophageal squamous cell carcinoma. It is also being developed to **treat different types of malignancies.**
- Zanutrutinib, a **BTk inhibitor**, has been authorized for the **treatment of certain blood cancers.** Multiple studies have consistently demonstrated its positive effectiveness and safety record.

25. (d) Key Concept: Mou and Agreements

Explanation:

- A Memorandum of Understanding (MoU) is entered into between **Ministry External Affairs (MEA), Government of India, Ministry of Electronics and Information Technology (MeitY), Government of India and CSC eGovernance Services India Limited to provide the eMigrate services through CSCs in the country.**
- **About E-Migrate project:**
- eMigrate project is undertaken to **assist mainly the blue-collar workers going to Emigration Check Required (ECR) countries.**
- The project was conceptualized to address issues faced by the migrant workers by making the **emigration process online seamless.**
- It also aims to **bring foreign employers and registered recruitment agents and insurance companies** on one common platform aimed at promoting safe and legal migration.

26. (b) Key Concept: Polity

Explanation:

- **Indian Renewable Energy Development Agency (IREDA)** was granted 'Navratna' status by the Department of Public Enterprises.

- IREDA is a **non-banking financial entity operating under the Ministry of New and Renewable Energy.**

- It is dedicated to promoting, developing, and providing financial support for the establishment of initiatives related to new and renewable energy sources

- **Criteria for granting Navratna Status:**

- **Eligibility:** In order to be eligible for Navratna status, a corporation must initially achieve the Miniratna category-I classification and be included in Schedule A of Central Public Sector Enterprises (CPSEs).

- Navratna status is conferred by the Indian government to **top public sector enterprises (PSUs)**, giving them the right to make substantial investments of up to ₹1,000 crore without needing clearance from the central authority.

- These companies are authorized to allocate a **maximum of 30 percent of their net worth each year**, as long as it does not exceed ₹1,000 crore.

- In addition, businesses have the opportunity to engage in collaborative business initiatives, **establish strategic alliances, and establish foreign branches.**

27. (b) Key Concept: Art and Culture

Explanation:

- The Shompen tribe, classified as one of the **Particularly Vulnerable Tribal Groups (PVTGs)**, participated in the electoral process for the first time.
- They exercised their **right to vote in the Andaman and Nicobar Lok Sabha seat.**
- According to B.S. Jaglan, the Chief Electoral Officer of the Andaman and Nicobar Islands, **seven members of the tribe cast their votes.**
- **About Shompen tribe:**
- They are located in the **Great Nicobar Island in the Andaman and Nicobar archipelago.**
- They are **Semi-nomadic hunter-gatherers; rely on hunting, gathering, fishing, and basic horticulture.**

28. (c) Key Concept: Polity

Explanation:

- The **Commonwealth Secretariat** has recognized **Centralised Public Grievance Redress and Monitoring System (CPGRAMS)** of India as a best practice in Commonwealth Secretaries of Public Service/ Secretaries meeting held in London.

- **About Centralised Public Grievance Redress and Monitoring System (CPGRAMS):**
- The National Informatics Centre, in collaboration with the **Ministry of Personnel, Public Grievances & Pensions**, has created an online web-based system.
- Its objective is to **accept, address, and oversee public grievances**.
- It serves as a unified platform that links all **Ministries/Departments of the Government of India and States**.
- Individuals have the ability to utilize CPGRAMS by means of a separate mobile application using the UMANG integrated mobile application.
- It also provides a recourse for dissatisfied citizens through an appeal procedure.
- During the registration process, individuals are assigned a distinct registration ID that allows them to monitor the progress of their complaints.

29. (d) Key Concept: Government Schemes

Explanation:

- The Insurance Regulatory and Development Authority of India (IRDAI) proposed setting the pricing of **Bima Vistaar at Rs 1,500 per policy**.
- Bima Vistaar is a comprehensive and cost-effective mass product with ambitious targets of **targeting the rural sections of the country**.
- Bima Vistaar offers specific advantages for every risk category, guaranteeing prompt claim payments without the need for surveyors.
- Bima Vistaar is designed to cater to the **unexplored regions as a social safety net offering**.
- In order to accelerate progress towards the goal of providing insurance to everyone, the IRDAI developed the concept of **Bima Trinity: Bima Vistaar, Bima Sugam and Bima Vahak**.

30. (d) Key Concept: Polity

Explanation:

- **Doordarshan Kisan launched** its two artificial intelligence anchors, known as **AI Krish and AI Bhoomi**.
- By employing artificial intelligence, Doordarshan Kisan has become the **first government TV channel in India to utilize AI anchors**.
- The AI anchors are designed to look and function just like human presenters, capable of **delivering news 24/7** without breaks.
- By introducing AI Krish and AI Bhoomi, Doordarshan Kisan **aims to improve its services for farmers, guaranteeing the**

delivery of precise and timely information in a creative and captivating manner.

- They will cover topics such as **agricultural research, market trends, weather updates, and government schemes**.
- These AI anchors can **communicate in fifty different languages**, catering to a diverse audience both domestically and internationally.

31. (b) Key Concept: Government schemes

Explanation:

- The **Indian Single Sky Harmonized Air Traffic Management (ISHAN)** program in India was launched with the **major aim to optimize and improve air traffic management through harmonization**.
- India is strategizing a significant effort to consolidate its four Flight Information Regions (FIRs) located in **Delhi, Mumbai, Kolkata, and Chennai** into a single, unified airspace in Nagpur.
- This initiative also involves synchronizing Air Traffic Management operations from Nagpur.
- The **Airports Authority of India (AAI), a government-owned organization**, has requested expressions of interest (EoI) for the development of a comprehensive project report.
- Presently, the Indian airspace is partitioned into four distinct flight information regions (FIRs) located in Mumbai, Kolkata, Delhi, and Chennai, with an additional sub-FIR in Guwahati. **Each of these regions is independently regulated.**

32. (b) Key Concept: Government Schemes

Explanation:

- The Central Council for Research in Ayurvedic Sciences (CCRAS), an autonomous body under the Union Ministry of Ayush, has launched **“PRAGATI- 2024” (Pharma Research in AyurGyan And Techno Innovation)**.
- It offers a very useful opportunity for **collaborative research in the field of Ayurveda**.
- The aim of CCRAS is to reach each stakeholder and therefore we have started giving scholarships so that students understand the importance of research.
- The **CCRAS is an autonomous body of the Ministry of AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy)**.

33. (c) Key Concept: Science and tech

Explanation:

- **China has inaugurated the High Energy Photon Source (HEPS)**, which will be the first

fourth-generation synchrotron light source in Asia.

- There are presently over 70 synchrotrons worldwide that are either operational or being built.
- Fourth-generation facilities utilize a multi-bend achromat lattice, consisting of an array of magnets, to produce X-ray beams that are narrower and consequently brighter
- The current facilities comprise **Sweden's MAX IV Laboratory, The Sirius facility is located in Campinas, Brazil**, whereas the Extremely Brilliant Source of the European Synchrotron Radiation Facility is situated in Grenoble, France.
- The location specified is the **Advanced Photon Source facility situated in Lemont, Illinois**.

34. (c) **Key Concept: Science and technology**

Explanation:

- The inauguration of the University of **Tokyo Atacama Observatory (TAO)** has taken place recently.
- This telescope will be dedicated to **understand the nature of the Universe and the origin of life**.
- The TAO telescope, with a capacity of 6.5 meters in optical-infrared measurements, is located at an altitude of 18,500 feet **on Mount Chajnantor in the Atacama Desert of Chile**.
- Currently, it holds the title of the **world's highest astronomical observatory**. This elevation surpasses that of the renowned Atacama Large Millimeter Array (ALMA), which stands at 16,570 feet.
- **Instruments and Research Focus:**
 - ♦ **SWIMS (Simultaneous-color Wide-field Infrared Multi-object Spectrograph):** Aimed at understanding the evolution of galaxies.
 - ♦ **MIMIZUKU (Mid-Infrared Multi-field Imager for gaZing at the UnKnown Universe):** Used to study planet formation and the origin of materials.

35. (c) **Explanation:**

- The **National Green Tribunal (NGT)** in Assam has requested details from the Chief Secretary regarding officers who allowed construction activities in a **wildlife sanctuary and reserve forest, violating the Forest (Conservation) Act, 1980**.
- Various illegal constructions were found in the **Sonai Rupai Wildlife Sanctuary and Charduar Reserve forest, including schools, a**

tea garden, a road, wells, and polling stations, leading to FIRs against those responsible.

36. (b) **Explanation:**

- The exoplanet **55 Cancri e**, also known as **Janssen**, is a super-Earth with a **rocky composition**, larger than Earth but smaller than Neptune.
- It orbits very close to its host star, completing an orbit every 18 hours, resulting in extreme surface temperatures of about 3,140 degrees Fahrenheit.

37. (b) **Explanation:**

- The name of tropical cyclone '**Remal**' that formed in the **Bay of Bengal** was chosen by Oman which means '**sand**' in Arabic.
- Remal Cyclone is a **tropical cyclone**.
- Cyclones also Known as **Tropical Cyclones (Indian Ocean)**, Hurricanes (Atlantic), Typhoons (Western Pacific and South China Sea) and Willy-willies (Western Australia).



38. (b) **Explanation:**

- A new marine tardigrade species named **Batillipes chandrayaan** was discovered off the **southeast coast of Tamil Nadu** and named after the **Chandrayaan-3 moon mission**.
- The discovery was made by researchers at the Cochin University of Science and Technology (Cusat).

39. (c) **Explanation:**

- The traditional artisans of '**Kutch Ajrakh**' have been honored with a Geographical Indication (GI) certificate, acknowledging their rich cultural heritage.
- **Ajrakh is a revered textile craft in Gujarat**, involving **hand-block printing on cotton cloth with intricate designs and historical symbolism**.

40. (b) **Explanation:**

- **Major Radhika Sen, an Indian military peacekeeper**, received the 2023 United Nations

Military Gender Advocate of the Year Award for her dedication to promoting UN Security Council resolution 1325 on women, peace, and security.

41. (d) **Explanation:**

- **Ruskin Bond**, a renowned author, was awarded the **Sahitya Akademi Fellowship** for his significant **contributions to literature**.
- The **Sahitya Akademi Fellowship** is a literary honour in India bestowed by the **Sahitya Akademi**, India's National Academy of Letters.
- The fellowship was established in **1968** and is limited to **twenty individuals at any given time**.
- As of 2021, the fellowship has been conferred on **105 writers**.

42. (a) **Explanation:**

- **Kapil Sibal** was elected as **SCBA** president for the fourth time, succeeding Adish C. Aggarwala.
- Sibal's extensive legal experience and expertise contribute to his re-election, showcasing trust from the legal fraternity.

43. (b) **Explanation:**

- **Retired Justice Sanjaya Kumar Mishra** appointed as President of **GSTAT** with a monthly salary of Rs 2.50 lakh for four years.
- Appointment approved by the Appointment Committee of the Cabinet based on **SCSC** recommendation.

44. (a) **Explanation:**

- **Dipa Karmakar** made history by winning the **first-ever gold medal for India in any Asian Championships** in the **women's vault individual final** at the **Asian Women's Artistic Gymnastics Championships 2024** in **Tashkent, Uzbekistan**.

45. (b) **Explanation:**

- **India will host the prestigious 2025 BWF World Junior Championships** at the National Centre of Excellence in Guwahati, marking a significant milestone.
- This event will be the first time India hosts the championships since 2008, showcasing the country's growing prominence in badminton.

46. (c) **Explanation:**

- The **World Press Freedom Index** ranks **180 countries** based on journalists' freedom and independence to work and report.
- Countries like **Norway, Denmark, and Sweden** hold the top positions, while **India ranks 159th**, with Pakistan at 152nd and Sri Lanka at 150th.

47. (a) **Explanation:**

- **China** has become **India's largest trading partner** in FY 2023-24, **surpassing the United States** in total trade volume .
- India's trade dynamics with its top 15 trading partners have evolved significantly, impacting exports, imports, and trade surplus/deficit across various sectors.

48. (b) **Explanation:**

- The **Cost Inflation Index (CII)** for FY 2023-24 is **348**.
- The Cost Inflation Index (CII) is used in the **computation of long-term capital gains** in some tax systems (such as in India) to adjust the purchase price of an asset for inflation.
- This process, known as indexation, increases the original purchase price, thereby reducing the capital gain and, consequently, the tax liability on that gain.

49. (b) **Explanation:**

- **Nepal** cabinet has recently approved printing of **new denominations of 100 of Nepalese currency** featuring a map that includes **Indian territories of Limpiyadhura, Lipulekh, and Kalapani**.

50. (d) **Explanation:**

- A team of archaeologists from Ashoka University discovered **prehistoric artifacts** made from **fossil wood** at the **National Fossil Park in Ghughua, Madhya Pradesh**, suggesting ancient hunter-gatherers used fossilized tree trunks for tools.
- **Ghughua National Fossil Park:**
 - ♦ **Location:** Dindori district, **Madhya Pradesh**.
 - ♦ **Landscape:** Tropical dry deciduous.
 - ♦ It was recognised as a National Park in **1983**.

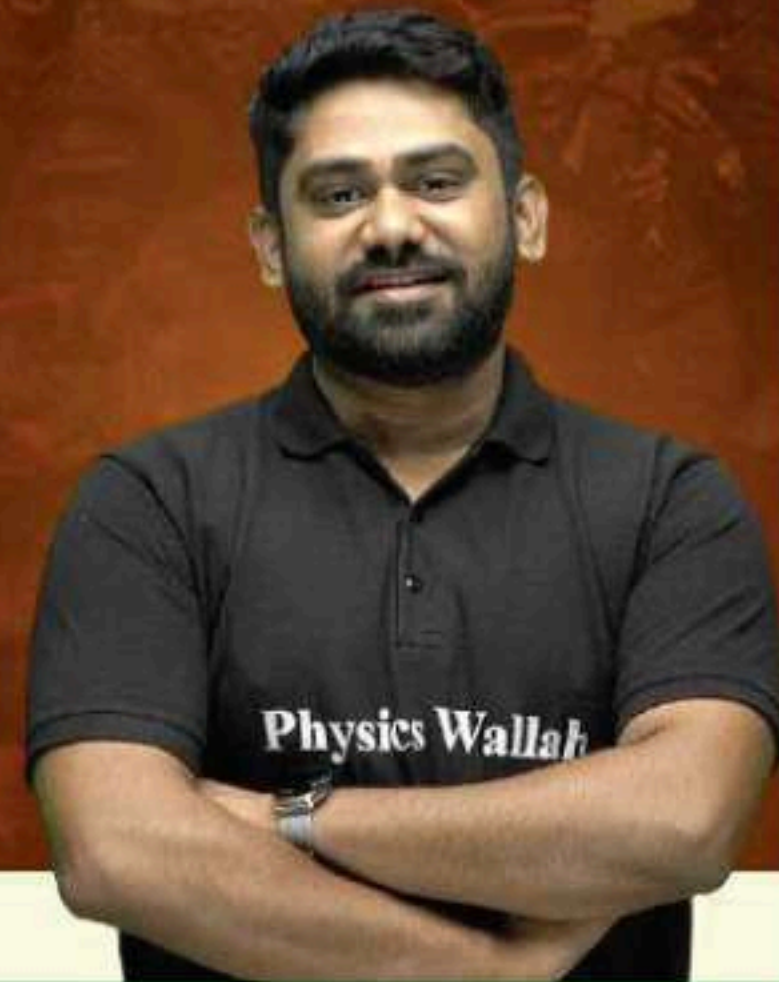


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