

# WBCS GAZETTE

Monthly Current Affairs and GK Essentials



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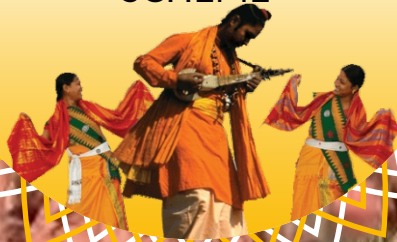
**JANUARY**

**2025**

লোকপ্রসার  
প্রকল্প

তথ্য ও সংস্কৃতি বিভাগ  
পশ্চিমবঙ্গ সরকার

**LOKPRASAR  
PRAKALPO  
SCHEME**



পশ্চিমবঙ্গ

## TOPICS COVERED

WB Schemes in News  
Sports  
Important Days in News  
National  
International

Awards  
Appointments  
Static GK  
Books and Authors  
Security and Defence

Science and Technology  
Economics  
Practice Questions  
WBCS Prelims Test ID 04

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India's 1st  
Astronomical  
Observatory

Scheme of  
death benefit  
for Weavers &  
Artisans

West Bengal  
Bhabishyat  
Credit Card  
Scheme



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## WEST BENGAL SPECIAL

# 1. SCHEMES IN NEWS

## Lakshmir Bhandar Scheme

### Context

- The Lakshmir Bhandar Scheme in West Bengal is likely to have its grant doubled in the 2025 state budget.

### About the Scheme

- Aimed at empowering female household heads, this scheme provides basic income support to help cover daily expenses and boost economic independence.

### Highlights

- Financial Assistance:** ₹500/month for general category households and ₹1000/month for SC/ST households.
- Eligibility:** West Bengal residents, aged 25–60; SC/ST and casual laborers are eligible. General category applicants with tax-paying family members or owning over 2 hectares of land are ineligible.
- Application:** Available online/offline with required documents like Aadhaar, bank details and income proof.
- Implementation:** Launched in July 2021; funds are directly transferred to beneficiaries' bank accounts.
- Recognition:** The scheme won the **SKOCH Award for Women and Child Development**, empowering nearly 2 crore women across West Bengal.

### New Guidelines for Lakshmi Bhandar Scheme

Starting this year, women must adhere to updated rules to continue receiving benefits:

- Aadhaar Linking:** Bank accounts must be linked with Aadhaar. Benefits will no longer be provided to joint account holders.
- Single Account Only:** Only individual bank accounts are eligible.
- Age Proof Required:** The scheme is for women aged 25–60. Benefits will stop if age proof isn't provided or if the age falls outside this range.
- KYC Compliance:** Non-submission of bank account KYC will lead to discontinuation.

- Eligibility Check:** Women with jobs or receiving other government benefits will lose their Lakshmi Bhandar allowance.

*The government has issued 16 guidelines; non-compliance will result in the discontinuation of benefits.*

## Lokprasar Prkalpo Scheme

### Context

- West Bengal's Republic Day Tableau showcased the state's Prasar Prkalpo scheme.

### Details

- The Lokprasar Prkalpo Scheme, launched by the Department of Information & Cultural Affairs, Government of West Bengal in 2014, aims to revive and preserve folk and tribal culture by supporting financially distressed rural folk artists. The scheme ensures alternative economic support while promoting cultural heritage across Bengal.

### Key Objectives:

- To provide dignity through identity cards for folk artists.
- To preserve traditional folk forms of Bengal.
- To revive nearly extinct folk arts and cultures.
- To improve the socio-economic conditions of artists.

### Benefits:

- Identity cards for each folk artist.
- ₹1000/month pension for veteran folk artists above 60 years.
- ₹1000/month retainer for artists under 60 engaged in publicity campaigns.
- Income support through involvement in government development programs like Kannyasree, Yubasree and others.
- Performance fees of ₹1000/day for government events.

### Eligibility:

- Applicants must be from folk or tribal cultural backgrounds, recognized by the Folk & Tribal Cultural Centre.
- Must be between 18 to 60 years old (pension for those above 60).
- Residents of West Bengal.

## Nijashree Project

### Context

- The **West Bengal Cabinet** has decided to relax the conditions for providing flats under the Nijashree Project.

### Details

- The **Nijashree Housing Scheme** provides affordable housing for **Lower Income Group (LIG)** and **Middle Income Group (MIG)** families in West Bengal. It offers **1BHK flats** (35.15 sqm) for **LIG** and **2BHK flats** (50.96 sqm) for **MIG** on **government land** or land from local bodies. Flats are built in **G+3 buildings** with a minimum of **16 flats per block**.

### Key Features:

The district administration has been directed to explore the possibility of increasing applications under various MSME schemes to ensure maximum benefit for people. The program includes 8 to 10 schemes, with four new schemes introduced in March 2024, namely:

- Scheme of Death Benefit for Weavers & Artisans.**
- West Bengal Handloom and Khadi Weavers Financial Benefit Scheme 2024.**
- West Bengal Artisans Financial Benefit Scheme 2024.**
- West Bengal Bhabishyat Credit Card Interest Subsidy Scheme.**

The above schemes are discussed below.

## Scheme of death benefit for Weavers & Artisans

- The **Scheme of Death Benefit for Weavers & Artisans of West Bengal** is a social welfare initiative launched by the **Department of Micro, Small and Medium Enterprises and Textiles**, Government of West Bengal on **7th March 2024** and will remain in force for **five years**. This scheme provides **financial assistance** to the family of the deceased weaver/artisan.

### Benefits:

- ₹2,00,000** to the family of each deceased weaver/artisan.

### Eligibility:

- The age of the deceased artisan/weaver must have been between **18 to 60 years** on the date of death.
- The death must have occurred on or after **7th March 2024** (the date of notification).
- The claimant must not have availed any other **death benefit scheme** by the State Government.

- Unit cost** excludes land cost (treated as a subsidy).
- Off-site infrastructure** (roads, boundary walls, electrification) is not added to the flat cost.
- Credit-linked subsidies** for eligible beneficiaries.

### Benefits:

- Flats allotted by lottery on ownership basis.**
- No cost for infrastructure** (roads, drainage, water supply).
- Credit-linked subsidies** will be facilitated.

### Eligibility:

- LIG:** Monthly income  $\leq$  ₹15,000.
- MIG:** Monthly income  $\leq$  ₹30,000.
- Must not own a **pucca house/flat**.
- Applicant must be a **district resident**.
- Only **one application per family**.

### Application Process:

- Applications must be submitted **offline**.
- The eligible claimant should collect and submit the application in the prescribed format with all requisite enclosures to the **local BDO/SDO office** of the concerned **Block/Municipal Corporation area**.
- Application must be submitted within 3 months** of the death of the artisan/weaver.
- The claimant must produce a **certificate from the local BDO** confirming eligibility for the claim. The form will be drafted accordingly.

## West Bengal Handloom and Khadi Weavers Financial Benefit Scheme 2024

- The "**Assistance to Individual Handloom Weaver**" is a sub-scheme under the "**West Bengal Handloom and Khadi Weavers Financial Benefit Scheme 2024**", launched by the **Micro, Small & Medium Enterprises and Textiles Department**, Government of West Bengal on **7th March 2024** and valid for **five**

years. The scheme aims to provide **one-time financial assistance** to individual handloom weavers not associated with any Primary Weavers' Cooperative Societies.

**Benefits:**

- ₹5,000 for repair/renovation of work shed and/or repair/modification of loom & accessories.
- ₹10,000 towards raw material assistance (yarn) for the production of handloom products, with raw materials procured through Tantuja.

**Eligibility:**

- Applicant must be an individual handloom weaver.

**Application Process:**

- Applications can be submitted **offline** or **online** in the prescribed format.
- Applications should be sent to the **Director, Textiles** as notified by the department.

## West Bengal Artisans Financial Benefit Scheme 2024

- The “Grant to Individual Artisans” is a sub-scheme under the “West Bengal Artisans Financial Benefit Scheme 2024”, launched by the **Micro, Small & Medium Enterprises and Textiles Department**, Government of West Bengal on **7th March 2024** and valid for **five years**. This scheme aims to provide **systematic financial support** to artisans in Bengal for purchasing modern tool kits.

**Benefits:**

- **One-time grant up to ₹15,000** for the purchase and repair of tool kits/equipment.

**Eligibility:**

- Applicant must be a **handicrafts artisan**.
- Applicant's age must be between **18-60 years**.
- Applicant should be engaged in **traditional craft/trade** using **hand tools/equipment/small machines**.
- Applicant must be **enlisted in the State Portal** for artisans and weavers.
- Applicant must be a **permanent resident of West Bengal** for the past **10 years**.
- For a work shed, an **industrial cooperative society** of eligible artisans must have a piece

of land for constructing sheds/installing machines.

**Exclusions:**

- **Government employees** and their families are not eligible.
- Applicants who have already availed of **Central/State Government grants** for the same purpose.
- **Handloom and Khadi weavers** and their societies are excluded (they are covered under separate schemes).

## West Bengal Bhabishyat Credit Card Scheme (WBBCCS)

**Salient Features:**

- **Scheme Name:** West Bengal Bhabishyat Credit Card Scheme (WBBCCS)
- **Tenure:** 5 years (from 1st April 2023)
- **Target Coverage:** 2 lakh youth per year
- **Area of Operation:** Entire state (both urban and rural)

**Eligibility:**

- **Indian Nationals** residing in **West Bengal** for at least **10 years**.
- **Motor Transport Workers, Building and Construction Workers** and other individuals aged **18-55 years**.
- Only **one person** from a family is eligible (family means self and spouse).

**Key Features:**

- **Eligible Projects:** Income-generating projects in **Manufacturing, Service, Trading/Business**, including both **new and existing** units.
- **Maximum Project Cost:** Up to **₹5 lakh**.

**Assistance under the Scheme:**

- **Government Subsidy:** **10%** of the project cost, with a **ceiling of ₹25,000**.
- **Bank Loan:** Project cost minus the government subsidy at a **4% per annum interest rate**.
- **Guarantee Coverage:** **100%** coverage for the loan by **CGTMSE & Government of WB**.

**Income Limit:** *No bar on the family's annual income.*

**Applicability:**

- For any **income-generating project** in **manufacturing, service, trading, business, or farm sectors** (e.g., dairy, poultry, fish, piggery).
- Both **new and existing** units can apply.

- **Second capital support** (machinery/tools or expansion) for new units will be considered after **two years**.
- Applications previously sponsored under **Karmasathi Prakalpa** but not sanctioned before 1st April 2023 will be transferred to this scheme.

**Non-Eligibility:**

- **Central/State government employees** and their families.
- **Defaulter borrowers** from banks/financial institutions.

**Guarantee Coverage:**

- **CGTMSE Coverage:** 85% of the loan.
- **State Government Coverage:** 15% of the loan (total 100%).

**Annual Guarantee Fee:**

- **CGTMSE charges** the fee for its share of coverage. No additional fee for the State Government's coverage.

**Eligible Lending Institutions:**

- All Scheduled Public Sector Banks, Private Sector Banks, Regional Rural Banks, Small Finance Banks and Cooperative Banks.

**Mode of Application:**

- **Online application** via a dedicated portal (manual applications will not be accepted).
- Advertisements will invite applications from **districts** and be publicized through **Panchayati Raj Institutions** in rural areas.
- **Complete and screened applications** will be sent to banks within **7 days**.

## 2. WEST BENGAL ECONOMY (GK)

- The service sector in West Bengal contributes approximately **57.52% to the state's Gross State Domestic Product (GSDP)**, making it the dominant sector in the state's economy.
- West Bengal is the **largest producer of rice in India**. It is also the second-largest producer of potatoes and fish in India.
- The fisheries sector **contributes about 5.55% to West Bengal's agricultural GSDP** and provides direct employment to around 1.7 million people.
- It ranks **No 2**, nearly always behind Maharashtra, in the case of **six industrial groups including even such items as engineering and basic metals (steel) and No 3 in machinery and textile apparel**. In nearly all these cases, it is a very distant No 2, with 15 to 50 per cent of the output of No 1.
- In 2022, **West Bengal's poultry meat production reached 646.590 Ton th**, marking an increase from **581.340 Ton th in 2021**, with data spanning from 1999 to 2022 and an all-time low of 17.570 Ton th in 2013.

## 3. WEST BENGAL – OTHER SECTORS (GK)

- **Prince Dwarakanath Tagore**, the grandfather of Rabindranath Tagore, was a pioneer in India's modern banking system and a founder of the **Union Bank of India** in 1829.
- The Calcutta Stock Exchange (CSE), is one of oldest stock exchanges in Asia and **third largest bourse in India. It was founded in May 1908 at 2, China Bazar Street**.
- The year 1997 had been a momentous one in the history of this illustrious institution as on 26th February, 1997 the Calcutta Stock Exchange ushered in a new era by replacing the old manual trading system with completely computerized on-line trading & reporting system known as **C-STAR (CSE Screen Based Trading and Reporting)**.
- Kolkata Metro, India's first underground railway, **started in 1984** to ease the city's transport problems.
- Calcutta Tramways, **established in 1879, is Asia's oldest electric tram network**. The first horse-drawn tram route was inaugurated in 1880 between Sealdah and Armenian Ghat. Electric trams replaced horse-drawn ones by 1905.
- **William Brooke O'Shaughnessy built the first telegraph line in India between Calcutta and Diamond Harbour in 1851.**

## 4. WEST BENGAL MISCELLANEOUS

### West Bengal clinches Santosh Trophy 2025

#### Context

- West Bengal clinched the **Santosh Trophy** for a record **33rd time**, defeating Kerala 1-0 in the final of the 78th edition at GMC Balayogi Stadium, Hyderabad.

#### Details

- Robi Hansda** scored the decisive goal in **added time (90+4th minute)**, capitalizing on a header from Manotos
- Maji. Hansda, who netted **12 goals in the tournament**, won the **Player of the Match** and **Player of the Tournament Awards**.
- Coach Sanjoy Sen expressed pride in bringing the trophy back to Kolkata after **seven years**.

#### About the Santosh Trophy

- The **National Football Championship for Santosh Trophy** is an **inter-state football competition** organized by the **All-India Football Federation (AIFF)**.
- Started in **1941** by the Indian Football Association (IFA), it was named after **Sir Manmatha Nath Roy Chowdhury**, the Maharaja of Santosh.
- Since **2021**, the tournament has been part of the restructured **National Football Championship**, featuring zonal qualification rounds. In **2022**, it was further restructured to adopt a zonal format.

### West Bengal's Republic Day Tableau

#### Context

- West Bengal's Republic Day tableau showcased the state's dedication to women empowerment and cultural preservation, highlighting two flagship initiatives—"Lakshmir Bhandar" and "Lok Prasar Prakalpa."

#### Details

- The tableau highlighted "**Lakshmir Bhandar**," a flagship scheme launched in 2021, ensuring a **monthly income to women**. Benefiting **2.2 crore women**, the initiative fosters **economic independence and self-reliance**, making

significant strides toward gender empowerment.

- The tableau's front showcased a **Durga idol in Chhau attire**, symbolizing "**Naari Shakti**" (women power). A replica of the "**Kalash**" of **Lakshmir Bhandar** stood as a powerful emblem of women's empowerment.
- The "**Lok Prasar Prakalpa**" initiative took center stage, celebrating **folk art and traditional performances**. This scheme underscores West Bengal's dedication to preserving its **cultural legacy** and supporting its folk artistes.
- Drawing inspiration from **Bishnupur's terracotta architecture**, the tableau showcased Bengal's **architectural brilliance** and its contribution to India's **cultural fusion**.

### WB gets Eastern India's 1st Astronomical Observatory

#### Context

- The first **astronomical observatory in Eastern India** has been inaugurated in **Garpanchkot Hills, Purulia district**, West Bengal. The observatory, established by the **Satyendra Nath Bose National Centre for Basic Sciences (SNBNCBS)**, is equipped with advanced **telescopes** for scientific research and educational purposes.

#### Observatory details

- Location:** Garpanchkot Hills, Purulia district, **600 meters** above sea level
- Telescope Equipment:** Initially, a **14-inch diameter telescope**; plans for a **1-meter diameter telescope**
- Purpose:** Scientific observations of astronomical objects, training students and data recording
- Key Features:**
  - Seeing value:** 1.3 arc seconds (comparable to other top centers)
  - Observation period:** Best from **November to April**, when the sky is clear
  - Weather monitoring:** Equipped with an **automatic weather forecast center**

#### Significance and Objectives

- Educational Impact:** Offers **research opportunities** for university students in **astrophysics**

- **Research Potential:** A valuable platform for groundbreaking studies in astronomy and astrophysics
- **MoU with SKB University:** For resource sharing and observatory operations

#### Strategic Location

- The observatory's 600-meter elevation away from city lights and pollution provides an ideal location for clear astronomical observations.

#### National and Global Importance

- This is the sixth astronomical observatory in India and the first in the eastern region, joining centers in Ladakh, Nainital, Mount Abu, Girbani Hills and Kavalur. The observatory enhances India's scientific research capabilities, fostering innovation in space sciences.

## Census 2011 findings: West Bengal specific

### What is the population of West Bengal as per Census 2011 and its growth?

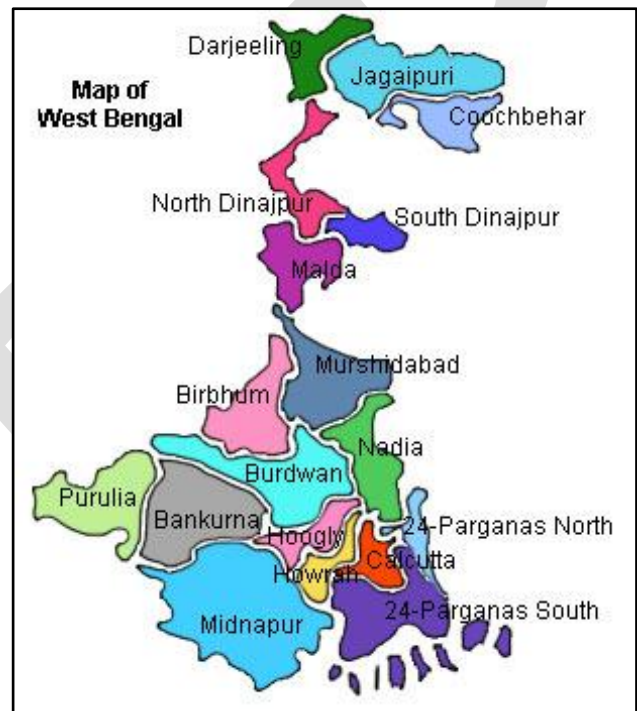
- According to the Census 2011, West Bengal's population stands at 91,276,115, which is an increase from 80,176,197 in 2001. The male population is 46,809,027 and the female population is 44,467,088. This represents a growth rate of 13.84% in the 2001-2011 period, compared to 17.84% in the previous decade. The state's population forms 7.54% of India's total, a slight decrease from 7.79% in 2001.

### What is the sex ratio in West Bengal?

- As per Census 2011, West Bengal's sex ratio is 950 females per 1000 males, higher than the national average of 940. In 2001, the sex ratio was 934 females per 1000 males.

### How has the literacy rate in West Bengal changed?

- West Bengal's literacy rate has shown an upward trend, reaching 76.26% as per the Census 2011. Specifically, 81.69% of males and 70.54% of females are literate.



### What is the population distribution by religion in West Bengal?

- The majority religion in West Bengal is Hinduism with 70.54% followers, followed by Islam at 27.01%. Other religions include Christianity (0.72%), Jainism (0.07%), Sikhism (0.07%) and Buddhism (0.07%). Around 1.03% of the population follows other religions and 0.25% has no particular religion.

### What are the urban and rural population statistics of West Bengal?

- **Urban Population:** 31.87% of West Bengal's population lives in urban areas, with an urban population growth of 29.72% between 2001-2011.
  - The urban sex ratio is 944 females per 1000 males.
  - Urban literacy rate stands at 84.78%.
- **Rural Population:** 68.13% of the population lives in rural areas, with a rural growth rate of 7.68%.
  - The rural sex ratio is 953 females per 1000 males.
  - Rural literacy rate is 72.13%.

### What is the population of major cities in West Bengal?

- **Kolkata:** 14,035,959
- **Asansol:** 1,243,414
- **Siliguri:** 705,579
- **Durgapur:** 580,990



### What is the demographic information of West Bengal?

- **Housing:** 89.28% of houses are owned and 7.33% are rented.
- **Banking Access:** In 2011, 48.75% of the population had access to banking services.
- **Internet Access:** Only 2.21% of the population had internet access, which is expected to improve with the expansion of telecom networks.
- **Vehicle Ownership:** 2.23% of families own cars and 8.52% own two-wheelers.

## West Bengal National Parks and Wildlife Sanctuaries

### National Parks of West Bengal

No.	National Park	Year of Notification	Area (km <sup>2</sup> )	No.	National Park	Year of Notification	Area (km <sup>2</sup> )
1	Buxa National Park	1992	117.10	4	Singalila National Park	1986	78.60
2	Gorumara National Park	1992	79.45	5	Sunderban National Park	1984	1330.10
3	Neora Valley National Park	1986	159.89	6	Jaldapara National Park	2014	216.51

### Key National Parks of West Bengal

#### Sundarban National Park

- **Area:** 2,585 km<sup>2</sup> (includes 54 islands)
- Known for its **mangrove forests**, home to the **Royal Bengal Tiger**, **saltwater crocodiles** and other endangered species like **Gangetic Dolphins** and **Olive Ridley Turtles**. The park is a **UNESCO World Heritage Site** and can only be explored by **boat**.

#### Jaldapara National Park

- **Area:** 217 km<sup>2</sup>
- Famous for the **Indian one-horned rhinoceros** and other wildlife like **elephants**, **Bengal Florican** and various bird species. It's a paradise for birdwatchers and nature lovers.

#### Gorumara National Park

- **Area:** 80 km<sup>2</sup>
- Situated in **Doors**, this park is home to species like **Gaurs**, **Sloth Bears**, **Indian Rhinoceros** and **Pygmy Hog**. The park offers **watchtowers** for wildlife viewing.

#### Neora Valley National Park

- **Area:** 88 km<sup>2</sup>
- Nestled in **Kalimpong**, this park features **Red Pandas**, **Leopards** and various species of **birds** and **reptiles**. The park's landscapes are a mix of **valleys**, **rivers** and **mountain views**.

#### Singalila National Park

- **Area:** 78.60 km<sup>2</sup>
- Known for the **Sandakphu-Phalut** trekking route and its biodiversity, including species like the **Red Panda** and **Himalayan Black Bear**. It's a favorite for trekking enthusiasts.

#### Buxa Tiger Reserve

- **Area:** 117 km<sup>2</sup>

- Located near the Bhutan border, this reserve is home to **tigers**, **elephants** and **Bengal Floricans**, offering a diverse range of **wildlife** and **bird species**.

These parks and reserves contribute significantly to West Bengal's ecological richness, making the region a crucial site for biodiversity conservation.

#### **Others**

- Ballavpur Wildlife Sanctuary: Birbhum district.
- Bethuadahari Wildlife Sanctuary: Nadia district.
- Bibhuti Bhusan Wildlife Sanctuary: North 24 Parganas district.
- Chintamani Kar Bird Wildlife Sanctuary: South Kolkata.
- Haliday Island Wildlife Sanctuary: A part of the Sundarbans Biosphere Reserve.
- Jorepokhri Salamander Wildlife Sanctuary: Darjeeling district.
- Lothian Island Wildlife Sanctuary: An island in South 24 Parganas district.
- Pakhi Bitan Bird Sanctuary: Foreshore of Teesta Barrage in Jalpaiguri.
- Raiganj Bird Wildlife Sanctuary: Uttar Dinajpur district.
- Ramnabagan Wildlife Sanctuary: Located in Bardhaman city (on the left bank of the Damodar River) in Purba Bardhaman district.
- Sajnakhali Wildlife Sanctuary: Located in the northern part of the Sundarbans delta in South 24 Parganas district.
- Senchal Wildlife Sanctuary: Located in the Darjeeling district; contiguous with the Singalila National Park.

- West Sunderban Wildlife Sanctuary: Part of

larger Sundarbans region.

## NATIONAL

### 8th Pay Commission

#### Context

- The Union government recently announced the constitution of the **8th Pay Commission** to revise the salaries of central government employees and pensions for retirees.

#### About Pay Commission

- The Pay Commission reviews and recommends pay scales, allowances and benefits for central government employees, factoring in **inflation** and the cost of living.

#### Objective:

To propose formulas for **Dearness Allowance (DA)** and **Dearness Relief (DR)** to offset inflation.

- Constituted every 10 years by the Department of Expenditure, Ministry of Finance.
- Chaired by a retired Supreme Court judge.
- Recommendations are **not binding** on the government.

The **7th Pay Commission**, chaired by Justice A.K. Mathur, was implemented in 2016.

### SVAMITVA Scheme

#### Context

- The Prime Minister recently distributed **SVAMITVA Property Cards** to property owners under the **SVAMITVA Scheme**.

#### SVAMITVA Scheme

- **Full Form:** Survey of Villages Abadi and Mapping with Improvised Technology in Village Areas.
- **Launch:** 24th April 2020, on National Panchayati Raj Day.
- **Nodal Ministry:** Ministry of Panchayati Raj (MoPR).
- **Objective:** To provide legal ownership records to rural property owners through legal ownership cards, fostering **economic growth** and **financial inclusion** in rural areas.

#### Implementation

- **Accurate Land Demarcation:** Uses drones to demarcate land boundaries and prepares GIS-based village maps.
- **Property Ownership Rights:** Issues **Record of Rights (RoR)** through SVAMITVA Property

Cards, offering legal recognition to rural property owners.

### Republic Day Parade 2025

#### Context

- The **76th Republic Day Parade** showcased India's defense capabilities, technological advancements and commitment to gender empowerment, with several remarkable firsts marking the event.

#### Key Debuts at Republic Day Parade 2025

##### Tri-Services Tableau

- Debuting with the theme '**Shashakt aur Surakshit Bharat**' (**Empowered and Secure India**), it symbolized jointness among the **Army, Navy and Air Force**.
- Featured platforms included:
  - **Arjun Main Battle Tank**
  - **Tejas MK-II Fighter Aircraft**
  - **INS Visakhapatnam**
  - **Advanced Light Helicopter**
  - **Remotely Piloted Aircraft (RPA)**

##### DRDO's Tableau: Raksha Kavach Debut

- **Battle Surveillance System 'Sanjay':** Enhanced battlefield monitoring with real-time data.
- **Raksha Kavach:** Multi-layered protection against multi-domain threats, showcasing India's advanced defensive systems.
- Included a new-generation **short-range ballistic missile** for high-precision, rapid deployment missions.

**NOTE:** The **Defence Research and Development Organisation (DRDO)**, established in **1958**, operates under the **Ministry of Defence** to advance India's military R&D. Headquartered in **Delhi**, it specializes in areas like aeronautics, missiles and naval systems. It is India's largest defence research body,

##### Indian Coast Guard Tableau

- Led by Commandants **Soniya Singh** and **Sadhana Singh**, it highlighted India's maritime strength.
- Theme: '**Swarnim Bharat: Heritage and Progress**', emphasizing a self-reliant defense ecosystem.

**NOTE:** The Indian Coast Guard (ICG), established in 1977, under the Coast Guard Act, 1978, is India's maritime law enforcement and search-and-rescue agency. Operating under the Ministry of Defence, it safeguards territorial waters, the contiguous zone and the exclusive economic zone. Headquartered in New Delhi, its motto, "वयमरक्षामः" (Vayam Rakshamah), means "We

Protect". The ICG's creation was recommended by the Rustamji Committee in 1975.

**61 Cavalry Regiment**

- The 61 Cavalry, the world's only mounted horsed cavalry regiment, led the mounted column, adding a touch of historical elegance to the parade.

**ARJUN MAIN BATTLE TANK**

- Arjun is a **third-generation main battle tank**. Developed by DRDO with the Combat Vehicles Research and Development Establishment (CVRDE), it was **launched in 1972**. **Equipped with FSAPDS ammunition, a 120-mm rifled gun and an advanced fire control system operable** in all lighting conditions, Arjun also features a co-axial 7.62-mm machine gun for anti-personnel use and a 12.7-mm machine gun for anti-aircraft and ground targets.

**HAL TEJAS MARK 2**

- The HAL Tejas Mark 2 is a **single-engine, canard delta-wing multirole fighter**. Designed for enhanced manoeuvrability with a **compound delta-wing and relaxed static stability**, it features improved range, onboard oxygen generation and the ability to carry **6,500 kg payload**, compared to the 3,500 kg of earlier variants. Equipped to integrate heavy weapons like **Scalp, Crystal Maze and Spice-2000**, it is more capable than its predecessors.

**INS VISAKHAPATNAM**

- **INS Visakhapatnam**, the lead ship of the **Visakhapatnam-class stealth guided-missile destroyers**, was commissioned on **November 21, 2021**. With 65% indigenous design, it features advanced stealth, **BrahMos missiles, MF-STAR radar**. Powered by Ukrainian **Zorya gas turbines**, it reaches speeds over **30 knots**. Equipped with cutting-edge systems like **Ship Data Network (SDN) and Combat Management System (CMS)**, it symbolizes India's shipbuilding prowess and commitment to **Atmanirbhar Bharat**.

**THE NEW TEJAS**

The long-awaited indigenous fighter Tejas Mk II, which will be manufactured by HAL, will go into production by 2025-2026

**17.5 ton**  
Tejas Mark II will be the same weight as the Mirage, Jaguar and Gripen

**ADDITIONS THE NEW GEN**

- Heavier stand-off weapon capacity
- State-of-the-art AESA radar
- Indigenously developed air-to-air missile Astra (with a range of 70km)

**WHEN:** Set to go into production after the Tejas LCA order of 123 aircraft to replace the IAF's ageing MiG-21s is completed

**ALSO IN THE WORKS**

Advanced medium combat aircraft (AMCA) given a go-ahead by IAF late last year

25-ton fighter will be powered by two engines capable of super-cruise speeds

Will have advanced tech to ensure minimum radar signatures

## Fiscal Health Index (FHI) 2025

### Context

- On **January 24, 2025**, NITI Aayog unveiled the inaugural **Fiscal Health Index (FHI) 2025** in New Delhi.
- This report assesses the fiscal health of **18 major Indian states**, aiming to guide policy reforms for sustainable economic growth.

### Key Highlights of the Fiscal Health Index 2025

#### Top-Ranked States:

- **Odisha** leads with a score of **67.8**.
- **Chhattisgarh** follows with **55.2** and **Goa** with **53.6**.
- These states excel in **revenue mobilization, expenditure management** and **debt sustainability**.

#### Areas of Improvement:

- **Jharkhand** has made progress in **fiscal prudence** and **debt sustainability**.
- **Karnataka** faces challenges due to weaker **expenditure quality** and **debt management**.

### Conclusion

- The **FHI** aligns with India's vision of a "**Viksit Bharat @2047**", underlining the role of **fiscal discipline** in the nation's economic transformation. It encourages states to align their fiscal strategies with national objectives, fostering **healthy competition** among them.

## Indian Sustainable Natural Rubber (iSNR)

### Context

- The **Indian Sustainable Natural Rubber (iSNR)** initiative was launched in **Kottayam, Kerala**.
- It aims to set global standards for sustainable rubber production.

### Key Objectives of iSNR

- **Preventing Deforestation:** iSNR ensures that all rubber sourced under this framework adheres to **zero-deforestation** commitments, supporting both **biodiversity** and **carbon sequestration** goals.
- **Empowering Farmers:** The initiative provides **free certification** and **training** to smallholder farmers, promoting **sustainable farming practices** that enhance **yields** and reduce environmental impact.

- **Traceability Across the Supply Chain:** With an emphasis on **transparency**, the iSNR framework guarantees that all rubber is traceable from **farm to factory**, ensuring ethical and **sustainable sourcing**.
- **Alignment with Global Sustainability Goals:** The initiative contributes to **India's commitment** to the **United Nations Sustainable Development Goals (SDGs)** and the **Paris Climate Agreement**.

### TRST01: Empowering iSNR Through Technology

- TRST01 stands for **Digital Monitoring, Reporting and Verification**. It's a technology platform that helps organizations monitor and report on their sustainability efforts.
- As the **official technology partner**, TRST01 plays a crucial role in implementing and managing the iSNR framework. Selected through a rigorous evaluation process, TRST01 brings advanced **digital solutions** to ensure the **integrity** and **efficiency** of the initiative.

### A Milestone in Global Rubber Sustainability

- The **iSNR initiative** sets a global benchmark for **sustainable rubber production**, prioritizing **environmental preservation**, **farmer welfare** and **global compliance**. This initiative ensures that India remains **competitive** in the rubber industry while contributing to a **greener planet**.

## Indus Waters Treaty (IWT)

### Context

- The Neutral Expert, **appointed by the World Bank** under the Indus Waters Treaty (IWT) deemed himself "competent" to adjudicate the technical differences between India and Pakistan.

### What is the Indus Waters Treaty (IWT)?

- The **Indus Waters Treaty**, signed on **September 19, 1960**, is a water-sharing agreement between **India** and **Pakistan**, brokered by the **World Bank**. It is widely regarded as one of the most successful examples of **conflict resolution** between the two nations.

### Key Features of the Treaty

#### Distribution of Rivers

- **Eastern Rivers (Beas, Ravi, Sutlej):** These are allocated to **India** for **unrestricted use**.

- **Western Rivers (Indus, Chenab, Jhelum):** These are reserved for Pakistan, with limited use allowed for India, including for irrigation, navigation and hydroelectric projects.

#### Water Allocation

- India controls about 30% of the total Indus River System Water. Pakistan controls the remaining 70%.

#### Obligation on India

- According to Article III (1) of the Treaty, India must allow the waters of the Western Rivers to flow unrestricted to Pakistan, except for specific uses permitted under the Treaty, such as for hydroelectric projects.

## EPFO changes and updates

### Context

- The Employees' Provident Fund Organisation (EPFO) has introduced key changes in 2025.

### Major Changes

- **ATM Withdrawals for PF:** Starting FY 2025-26, members can withdraw PF balances via ATMs.
- **No Contribution Limit:** The ₹15,000 cap on contributions is removed, allowing employees to contribute based on actual salary.
- **Equity Investment Option:** Direct equity investments may soon be available, potentially offering higher returns.
- **Job Creation Data:** October 2024 saw 1.34 million new EPFO members, with female membership rising and Maharashtra, Karnataka and Tamil Nadu leading the growth.
- **Pension Withdrawal Flexibility:** Pensioners can now withdraw pensions from any bank without extra verification.
- **IT System Upgrade:** EPFO's IT system upgrade, due by June 2025, will speed up claim settlements and improve transparency.
- **Centralized Pension Payment System (CPPS):** Launched on January 1, 2025, the CPPS enables pension disbursements through National Payments Corporation of India (NPCI), allowing payments to any scheduled commercial bank in India. This eliminates the need for Pension Payment Orders (PPO) transfers across regions.
- **Simplified Provident Fund (PF) Transfer:** Members can transfer funds between accounts linked with the same or different UANs if Aadhaar is verified.

## Uttarakhand's Uniform Civil Code (UCC) implementation

### Context

- Uttarakhand is set to be the **first state in India to implement the Uniform Civil Code (UCC)**, with the state government approving the UCC rules manual.

### Key Provisions of UCC's Rules

- **Scope of UCC:** Unifies laws for marriage, divorce, inheritance and maintenance across all communities in the state.
- **Online Portal and App:** A dedicated portal and mobile app for easy access to registration and services.

### Key Services for Registration

- **Marriage Registration:** Registers marriages and acknowledges them.
- **Divorce Registration:** Allows registration and annulment of divorces.
- **Live-in Relationships:** Registers live-in relationships and terminations.
- **Inheritance:** Registers legal heirs and wills.
- **Appeals:** A procedure for appealing decisions.
- **Grievances:** A complaint tracking mechanism.
- **Access to Information:** Public access to data and registered services.

### Equality Provisions

- **Women's Rights:** Equal rights for inheritance, adoption, divorce and bans on polygamy.
- **Marriageable Age:** Standard marriageable age of 18 for women and 21 for men.
- **Registration Requirements:** Mandatory registration for marriages and live-in relationships.

### Digital and Physical Access

- **Common Service Centres (CSC):** Assists those lacking digital literacy, particularly in remote areas.
- **Helpline:** Dedicated support for legal queries and portal issues.

### Training and Implementation

- **Officials' Training:** Ongoing training for officials on portal use and procedures.
- **Mock Drill:** A state wide mock drill scheduled for January 21, 2025.
- **Implementation Timeline:** UCC implementation will be announced after training completion.

### Key Objectives

- **Inclusivity:** Equal access to legal services for all citizens.
- **Ease of Access:** Simplified legal processes through digital and offline channels.
- **Fostering Transparency:** Digital integration to minimize bureaucracy and streamline processes.

## National Broadband Mission 2.0 and Sanchar Saathi Mobile Application

### Context

- On January 17, 2025, the Department of Telecommunications (DoT) introduced two major initiatives aimed at strengthening India's digital connectivity and telecom security: the National Broadband Mission 2.0 (NBM 2.0) and the Sanchar Saathi mobile application.

### Background

- The National Broadband Mission, under the National Digital Communications Policy, 2018, aimed to provide universal and equitable broadband access across India, with a special focus on rural and remote areas.
- Guided by the principles of universality, affordability and quality, the mission targeted broadband access to all villages by 2022 and seeks to enhance the quality of mobile and internet services nationwide.

### National Broadband Mission 2.0 (NBM 2.0)

- Following the success of NBM 1.0, which established over 8 lakh towers and boosted broadband subscriptions from 66 crore to 94 crore, NBM 2.0 targets connecting the remaining 1.7 lakh villages in India. The mission includes the following goals:
  - Ensuring 60 out of every 100 rural households have access to broadband.
  - Guaranteeing a minimum fixed broadband download speed of 100 Mbps.
  - Reducing the digital divide and fostering inclusive growth.

### Sanchar Saathi Mobile Application

- The Sanchar Saathi app is designed to improve telecom security and empower users to safeguard their mobile resources. Key features include:

- **Reporting Fraudulent Communications (SFC):** Users can directly report suspected fraudulent calls and SMS from their phone logs.
- **Managing Mobile Connections:** The app helps users identify and manage all mobile connections registered in their name, preventing unauthorized use.
- **Blocking Lost or Stolen Devices:** It allows users to block, trace and recover lost or stolen mobile devices quickly.
- **Verifying Device Authenticity:** The app provides an easy way to check the authenticity of mobile handsets to avoid counterfeit purchases.
- Available for both Android and iOS platforms, the app is designed to boost telecom security.

## Lokpal Foundation Day

### Context

- On January 16, 2025, the Lokpal of India celebrated its first Foundation Day at the Manekshaw Centre, New Delhi, marking 11 years since its establishment on January 16, 2014, under the Lokpal and Lokayuktas Act, 2013.

### Key Highlights

- **Chairperson:** Justice A.M. Khanwilkar
- **Notable Attendees:** Chief Justice of India Justice Sanjiv Khanna, former Lokayukta Justice N. Santosh Hegde and social activist Anna Hazare (via virtual participation).
- **Purpose:** Serving as an anti-corruption ombudsman, the Lokpal ensures transparency and accountability in governance.

### Strategies Emphasized

- **Simplifying Complaint Processes** to make grievance redressal more accessible.
- Adoption of **advanced technologies**, including AI and forensic tools, for effective investigations.
- Enhanced collaboration with agencies like the CBI, CVC and the judiciary for robust anti-corruption measures.

### Key Agencies Involved

- Central Bureau of Investigation (CBI)
- Central Vigilance Commission (CVC)
- Comptroller and Auditor General (CAG)

## INTERNATIONAL

# Gulf of Mexico renamed as Gulf of America

### Context

- The decision by the Trump administration to rename the Gulf of Mexico to the Gulf of America marks a highly symbolic move.



### Details

- The Gulf of Mexico, or **Golfo de México** in Spanish, is a significant ocean basin located within the **Atlantic Ocean**.
- It is bordered by the **United States, Mexico and Cuba**.
- Formed roughly **300 million years ago** by plate tectonics, the Gulf connects to the Atlantic Ocean through the **Straits of Florida** and to the Caribbean Sea via the **Yucatan Channel**.
- The Gulf is a crucial area for **offshore petroleum production**, accounting for **14%** of the U.S.'s total output.
- The **Mississippi River** watershed is the largest contributor to the Gulf's drainage system.

## BRICS Group

### Context

- Nigeria has officially become a partner state of the **BRICS** group.

### All about BRICS

- BRICS** is an intergovernmental organization consisting of **Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Indonesia, Iran and the United Arab Emirates**. It is considered an alternative to the **G7** bloc of the world's

largest economies and collectively represents nearly half of the world's population.

- Since the first summit in **Russia** in 2009, the founding countries—**Brazil, Russia, India and China**—have met annually to coordinate policies.
- Indonesia** officially joined as a member in early 2025, marking the group's first Southeast Asian member. As new members join, the term **BRICS+** has been used informally.
- BRICS has launched significant initiatives, such as the **New Development Bank, BRICS Contingent Reserve Arrangement** and the **BRICS basket reserve currency**.

## US withdrew from Paris Agreement

### Context

- President Donald Trump** has begun the process of withdrawing the United States from the **Paris Agreement** once again.

### Details

- Trump has consistently argued that the accord imposes **unfair burdens** on the U.S. economy. He first withdrew the U.S. from the agreement during his presidency, but the U.S. officially rejoined under **President Joe Biden** in 2021. Now, as Trump takes office again, he has restarted the withdrawal process.
- While **China** is the largest emitter of greenhouse gases, it is also a leader in deploying **renewable energy**. The U.S. has seen a decrease in emissions since the mid-2000s but remains the **largest historical contributor** of carbon dioxide.

### Paris Agreement

- The **Paris Agreement** is an international treaty on **climate change** that was signed in **2016**. The treaty covers key areas such as **climate change mitigation, adaptation and finance**. Negotiated by 196 parties at the **2015 United Nations Climate Change Conference** near Paris, the agreement was adopted by 195 members of the **United Nations Framework Convention on Climate Change (UNFCCC)**.
- Iran, a major emitter, is one of the few countries that has not ratified it. The **United States**, the second-largest emitter, withdrew

in 2020, rejoined in 2021 and announced its exit again in 2025.

- The long-term goal of the Paris Agreement is to limit global temperature rise to **well below 2°C** above pre-industrial levels and ideally to **1.5°C**.
- The lower the temperature increase, the less severe the impact of **climate change**. To achieve this, **greenhouse gas emissions** must be reduced to **net zero** by mid-century, with a target of halving emissions by **2030** to meet the 1.5°C goal. However, despite the signing of the agreement, global emissions have continued to rise and **2024** was recorded as the hottest year on record, with the global temperature surpassing the **1.5°C** threshold.
- Under the Paris Agreement, countries must determine and report their **climate contributions**, but there are **no binding emission targets**. Unlike the **Kyoto Protocol** (1997), the Paris Agreement treats **developed and developing countries** equally, requiring all nations to submit plans for **emission reductions**.

**Aims of the Paris Agreement include:**

- **Limiting the global temperature increase** to well below 2°C and pursuing efforts to limit it to 1.5°C.
- **Enhancing climate resilience** and **low greenhouse gas emissions development** while safeguarding **food production**.
- **Aligning finance flows** with a pathway toward low-emission, **climate-resilient development**.

## World's Longest Expressway Tunnel

**Context**

- China has completed the construction of the **world's longest expressway tunnel**, the **Tianshan Shengli Tunnel**.

**Details**

- The **Tunnel** is located through the **Tianshan Mountains** in the **Xinjiang Uygur Autonomous Region**.
- The **Tianshan Shengli Tunnel** is a key element in China's **Silk Road Economic Belt** initiative, which aims to boost **trade and economic connectivity** across **Asia, Europe** and beyond through **infrastructure development** and investment in **transportation networks**.

## 'Dual Year' between India and Spain

**Context**

- **2026** will be celebrated as a **'dual year'** between **India** and **Spain**, with a focus on **culture, tourism** and **advancements in artificial intelligence (AI)**.

**India-Spain Bilateral Relations**

- India and Spain currently have an annual **trade worth USD 10 billion**, with collaborations in sectors such as **railways, clean technology, drones** and **space exploration**.
- India's top exports to Spain includes **RMG cotton, iron and steel** and **telecom instruments**.
- Major imports from Spain were **petroleum products** and **industrial machinery**. India's exports saw significant growth in **bulk drugs, telecom instruments** and **RMG cotton**.
- However, imports declined in **machine tools, iron and steel** and **organic chemicals**. This trend highlights stronger export performance and a decrease in imports from Spain.

## India to sign Mining Pact with Mongolia soon

**Context**

- India is set to sign a preliminary agreement with **Mongolia** in the field of **geology** and **exploration**.

**Details**

- The deal comes amid growing demand in India for **copper** and **coking coal**, which landlocked Mongolia has in abundance. These resources are vital for **power generation, construction** and the **steel industry**.
- Coking coal is a key steel-making feedstock, with India – **the world's second largest crude steel-maker** – being a major importer.
- Mongolia is one of the major copper exporters globally; while coking coal exports from it are mostly to China.

## Pakistan's Non-Permanent Membership in the UNSC

**Context**

- Pakistan has officially begun its two-year tenure as a **non-permanent member** of the



**United Nations Security Council (UNSC)** for the 2025-26 term, starting from **January 2025**.

- This marks the **eighth time** Pakistan has served on the UNSC, a key body for maintaining global peace and security.

#### About UNSC

- The **United Nations Security Council (UNSC)** is one of the six principal organs of the **United Nations (UN)**. Its primary responsibilities include ensuring **international peace and security**, recommending the admission of new members to the **General Assembly** and approving any changes to the **UN Charter**.
- The UNSC is the only UN body with the authority to issue **binding resolutions** on **member states**.

#### Composition of the UNSC

The UNSC comprises **15 members**:

1. **Five permanent members (P5): China, France, Russia, United States and United Kingdom.**
2. **Ten non-permanent members**, elected by the **UN General Assembly (UNGA)** for **two-year terms**.

Each non-permanent member gets the opportunity to serve as the **UNSC president** during their term. These 10 non-permanent seats are distributed as follows:

- **Five seats for African and Asian countries** (with three for Africa and two for Asia).
- **One seat for Eastern European countries.**
- **Two seats for Latin American and Caribbean countries.**
- **Two seats for Western European and other countries.**

The **Africa and Asia Pacific group** alternates every two years to nominate an **Arab candidate** for one of the non-permanent seats.

#### Veto Power in the UNSC

- The **veto power** is a special voting privilege that is exclusive to the **permanent members (P5)** of the UNSC. If any one of these five members casts a **negative vote**, the resolution or decision is not approved, regardless of the votes of other members.
- **Article 27 of the UN Charter** stipulates that each member of the UNSC has one vote. Decisions on **procedural matters** require the affirmative vote of at least **nine out of the 15 members**. However, decisions on other

matters need the affirmative votes of **nine members**, including the concurring votes of all **P5 members**. Non-permanent members of the UNSC do not hold veto power.

## CR450 Prototype: World's Fastest High-Speed Train

#### Context

- **China unveiled** an updated model of its high-speed bullet train, the **CR450 prototype**.

#### Details

- **CR450 prototype**, which achieved **450 kmph** during test runs, making it the world's fastest high-speed train.
- The new model aims to **shorten travel time** and enhance **connectivity**, improving the convenience and efficiency of travel for China's passengers.
- **Key performance indicators** of the CR450 prototype, including **operational speed, energy consumption, interior noise and braking distance**, set a new **international benchmark**.
- The CR450 is significantly **faster** than the **CR400 Fuxing** high-speed rail currently in service, which operates at **350 kmph**.

## Mount Ibu erupted

#### Context

- A volcano in eastern Indonesia, **Mount Ibu**, erupted, releasing **lava** and a **column of smoke and ash** 4 kilometers into the air.

#### Details

- The eruption occurred on **Halmahera Island** in **North Maluku** province.
- **Mount Ibu** is among Indonesia's most active volcanoes, erupting over **2,000 times** last year. **Halmahera Island**, home to **700,000+ people**, is prone to volcanic activity due to Indonesia's position on the **Pacific "Ring of Fire"**.
- **Note:** The Pacific Ring of Fire is a horseshoe-shaped region around the Pacific Ocean that experiences frequent earthquakes and volcanic activity.

## SCIENCE

### PRSC-E01

#### Context

- Pakistan's Space and Upper Atmosphere Research Commission (SUPARCO) successfully launched its first indigenous electro-optical satellite, PRSC-E01, from the Jiuquan Satellite Launch Center in China.

#### Details

- China played a crucial role in this achievement by using its **Long March-2D rocket** to launch the PRSC-E01 satellite. This collaboration highlights the ongoing partnership between **Pakistan and China** in the field of space technology and exploration.
- The PRSC-E01 satellite is equipped with **electro-optical sensors** that can collect **data and images** of the Earth's surface. The technology works by detecting and measuring **reflected sunlight** or **emitted radiation**.
- It will be used for monitoring **natural resources**, managing **disasters** and aiding in **urban planning**.
- This development will significantly enhance Pakistan's capabilities in **socio-economic management** and **disaster response**.

### NVS-02 Satellite

#### Context

- ISRO created history with its **100th launch** from the **Sriharikota spaceport** in Andhra Pradesh.
- The **GSLV-F15 rocket**, carrying the **NVS-02 satellite**, successfully lifted off, marking a significant milestone in India's space journey.

#### Key Highlights of the Launch

- **Launch Date:** January 29, 2025
- **Rocket:** GSLV-F15
- **Payload:** NVS-02 Satellite
- **Orbit:** Geosynchronous Transfer Orbit (GTO)
- **Launch Time:** 6:23 AM

- **Location:** Sriharikota, Andhra Pradesh
- **Mission Duration:** 27-hour countdown

#### Historical Context

- **First Launch:** ISRO's first mission from Sriharikota took place on **August 10, 1979**, when the **SLV-3 E10 rocket** carried the **Rohini Technology Payload**.
- **Notable Achievement:** The first major success from Sriharikota was the launch of the **Rohini satellite (RS-1)** on **July 18, 1980**.

#### NVS-02 and NavIC System

- The **NVS-02 satellite** will enhance India's **NavIC system**, increasing the number of operational satellites from **four to five**.

- **NavIC (Navigation with Indian Constellation)** is India's regional navigation satellite system, similar to **GPS** and provides services not just in India but also up to **1,500 km beyond** its borders.

### Applications of NavIC

The **NVS-02 satellite** will support various applications, including:

- **Terrestrial, Aerial and Maritime Navigation**
- **Precision Agriculture**
- **Fleet Management**
- **Location-Based Services** (mobile devices)
- **Orbit Determination for Satellites**
- **IoT Applications**
- **Emergency & Timing Services**

### About GSLV-F15 and NVS-02

- **GSLV-F15** is the **17th flight** of the GSLV type and the **eighth operational flight** with a **domestic cryogenic stage engine**.
- The **NVS-02 satellite** was designed, developed and integrated at the **U.R. Satellite Centre (URSC)**.

## India's Deep Ocean Mission (DOM)

### Context

- India's **Deep Ocean Mission (DOM)** is a significant step towards **blue economy** and technological self-reliance. It aims to explore **deep-sea resources**, enhance **marine biodiversity conservation** and boost **economic growth** through indigenous technology.

### Mission Overview

- India's first **human underwater submersible** will be launched later this year, capable of reaching a depth of **6,000 meters**. The mission is part of India's growing focus on **deep-sea exploration** for **minerals, energy** and **biodiversity**.

### Key Objectives

- **Deep-sea mining** and resource exploration
- **Marine biodiversity conservation**
- **Energy and freshwater extraction** from the ocean
- **Climate change advisory services**
- **Ocean survey and exploration**
- **Ocean biology research stations**

### Technological Innovations

- **Matsyayaan 6000**: A submersible for **6,000-meter** dives
- **Titanium hull** and **self-floatation** systems for safety and durability
- Collaboration with **ISRO** for **advanced sensors** and **data analysis**

### Strategic and Economic Benefits

- **Mineral resources** like rare earth metals for industrial use
- **Blue economy growth**, creating new jobs and industries
- **Sustainable ocean resource management** for environmental preservation

### Way Forward

- India plans to develop more advanced technologies, expand **autonomous deep-sea exploration** and promote **sustainable practices** in **marine resource management**.
- This mission enhances India's scientific capabilities, global positioning and economic resilience through sustainable **deep-sea exploration**.

## Indian Space Startups Pixxel and Digantara launch Satellites with SpaceX

### Context

- Two Indian space start-ups, **Pixxel** and **Digantara**, announced the launch of their satellites onboard a **SpaceX** rocket, marking a significant leap in India's private space sector.

### Pixxel's Groundbreaking Hyperspectral Satellite Technology

- Pixxel has become the first private Indian company to deploy a constellation of satellites with **hyperspectral frequency technology**, enabling detailed observation of Earth across over **150 spectral bands**. This technology benefits various sectors, including **agriculture, defence** and **environmental monitoring**. The **Firefly satellites** are the world's highest-resolution commercial-grade hyperspectral satellites, offering six times sharper images than traditional systems.

### Key Features of Firefly Satellites:

- **Resolution**: 5-meter hyperspectral imaging
- **Applications**: Detects chemical compositions, vegetation health, water quality and atmospheric conditions

- **Clientele:** Pixxel serves over 60 clients, including **US National Reconnaissance Organization, BP, Rio Tinto and India's Ministry of Agriculture**
- Pixxel plans to launch three additional **Firefly satellites** soon and expand to 18 more, marking a transformative step in **hyperspectral satellite imaging**, especially for defence applications.

### Digantara's SCOT Satellite for Space Safety

- **Digantara Aerospace** launched the world's first commercial satellite for **object tracking**, the **Space Camera for Object Tracking (SCOT)**, designed to enhance **space situational awareness (SSA)**. With increasing space debris and artificial satellites, spacecraft safety is a growing concern.

#### SCOT's Capabilities:

- Tracks objects as small as 5 cm in **Low Earth Orbit (LEO)**
- Continuous monitoring, unaffected by weather or geographical limitations
- Part of Digantara's mission to create a hybrid surveillance network to ensure space safety and sustainability
- The **SCOT satellite** plays a crucial role in managing **space debris**, contributing to long-term space safety and national security.

### Significance of These Developments

- **Hyperspectral Imaging (Pixxel):** The **Firefly satellites** will drive innovations in agriculture, defence and climate action.
- **Space Safety (Digantara):** The **SCOT satellite** will improve monitoring of **Resident Space Objects (RSOs)**, addressing space debris concerns and enhancing space traffic management.

## ISRO Spadex Docking Mission

### Context

- On **January 16**, the **Indian Space Research Organisation (ISRO)** successfully demonstrated **space docking**, where two fast-moving satellites were brought within 3 meters of each other in orbit and joined together. This achievement positions **India** as the fourth country in the world, after the **United States, Russia and China**, to accomplish this complex task.

### What is "Docking" and Its Importance?

- **Docking** refers to the process of bringing two spacecraft into the same orbit and connecting them, either manually or autonomously. This capability is vital for missions requiring large spacecraft that a single launch vehicle cannot carry, such as space station assembly or transporting crew and supplies.

### Historical Context of Space Docking

- **United States:** The first docking occurred in **1966** when NASA's **Gemini VIII** docked with the **Agena** vehicle.
- **USSR:** In **1967**, the **Soviet Union** demonstrated the first uncrewed docking with **Kosmos 186** and **Kosmos 188**.
- **China:** In **2011**, China achieved docking with the **Shenzhou 8** and **Tiangong 1** space laboratory, followed by the first crewed docking in **2012**.

### Why Did India Conduct This Docking Experiment?

- ISRO's docking mission is a key step towards its **vision of a space station by 2035** and a **human mission to the Moon by 2040**. The docking capability will be crucial for assembling the **Bharatiya Antariksh Station** and the upcoming **Chandrayaan-4** lunar mission, which involves sending multiple modules that need to be docked in space.

### The Docking Experiment Process

- ISRO carried out a series of maneuvers to bring two satellites, **SDX01 (Chaser)** and **SDX02 (Target)**, progressively closer, first holding them at **5 km**, then reducing the distance step-by-step to **3 meters** before successfully joining them. Commands were given to treat the two satellites as a single composite object.

### The Bharatiya Docking System

- India's docking system is **androgynous**, meaning both satellites are equipped with identical systems. Unlike the **International Docking System Standard (IDSS)**, it uses two motors instead of 24, along with advanced sensors like the **Laser Range Finder** and **Rendezvous Sensor** to ensure precise docking.
- This success sets the stage for ISRO's future missions, including the **Chandrayaan-4** and **Gaganyaan**, advancing India's capabilities in autonomous space operations.

# DRDO's Himkavach: A Cold-Weather Clothing System for Soldiers

## Context

- The Defence Research and Development Organisation (DRDO) has developed the HimKavach clothing system to enhance the protection of soldiers operating in extreme cold conditions.

## Details

- This innovative system is designed to function in temperatures ranging from 20°C to -60°C,

making it suitable for the harsh environments of the Himalayas, where temperatures can plummet drastically.

## Features and Benefits of HimKavach

- The HimKavach system is made up of multiple layers, each crafted for insulation, breathability and comfort. Its modular design allows soldiers to add or remove layers based on weather conditions, ensuring versatility and adaptability in changing environments. This flexibility is crucial for high-altitude operations, where temperature fluctuations can be severe.

# ChatGPT vs Deepseek

ChatGPT	CATEGORY	DeepSeek
Developed by OpenAI, based on GPT-3.5 and GPT-4. A general-purpose conversational AI.	<b>Overview</b>	Developed by DeepSeek AI, tailored for enterprise-level applications and industry-specific solutions.
Built on GPT architecture using transformer-based neural networks.	<b>Architecture &amp; Technology</b>	Uses a hybrid architecture combining NLP, ML, and DL for domain-specific tasks.
Trained on a diverse dataset, suitable for general topics but lacks specialization.	<b>Training Data &amp; Specialization</b>	Trained on industry-specific datasets with deep expertise in sectors like finance, healthcare, and logistics.
Customer support, content creation, education, personal assistants.	<b>Key Use Cases &amp; Applications</b>	Financial analysis, healthcare, logistics, legal applications.
Limited customization, fine-tunable for some tasks but not deeply specialized.	<b>Customization &amp; Adaptability</b>	Highly customizable for industry-specific needs, integrated with enterprise systems.
Great at generating human-like text but can produce inaccurate or irrelevant responses.	<b>Performance &amp; Accuracy</b>	High accuracy and relevant responses, especially in specialized domains with structured data.
Scalable for general-purpose tasks across various platforms.	<b>Scalability &amp; Deployment</b>	Optimized for large-scale enterprise deployments, integrates with ERP systems.
Versatile across multiple topics. User-friendly and accessible. Fast development with pre-trained models.	<b>Strengths</b>	Expertise in specialized industries. Highly accurate responses. Customizable for enterprise needs.
May struggle with technical or domain-specific queries. Can generate incorrect responses.	<b>Weaknesses</b>	Complex deployment and integration. Higher development and deployment costs.
General-purpose AI tasks. When domain expertise is not critical. Cost-effective, easy deployment.	<b>Ideal For</b>	Specialized industries like finance, healthcare, or logistics. Applications needing high accuracy & domain knowledge. Businesses with the resources for customization.
Larger datasets and advanced models like GPT-4. Focus on reducing inaccuracies & enhancing domain-specific features.	<b>Future Trends</b>	Complex deployment and integration. Higher development and deployment costs.

## BIOLOGY & ENVIRONMENT

### 2024's Climate Record

#### Context

- 2024 has officially been declared the **warmest year on record**, with global temperatures exceeding **1.5°C above pre-industrial levels** for the first time, according to the **Copernicus Climate Change Service (C3S)**.

#### Details

- The year saw unprecedented temperature anomalies and extreme weather events, further exacerbated by **human-induced climate change** and the influence of **El Niño**.

#### Global Temperature and Climate Anomalies

- The **global average temperature** in 2024 reached **15.10°C**, marking a **0.72°C** increase from the **1991–2020 average**. Each of the past ten years has been among the warmest on record. Monthly temperatures consistently exceeded the **1.5°C threshold** above pre-industrial levels, with **July 2024** setting a new record for the highest global average temperature.

#### Ocean and Regional Highlights

- The **ocean surface temperature** in 2024 also hit a record high, with **extra-polar oceans** averaging **20.87°C**. In Europe, 2024 was the **warmest year on record**, with a temperature rise of **1.47°C** above the long-term average, surpassing previous records.

#### Extreme Weather and Impacts

- The year saw severe heatwaves, **high humidity** and **increased heat stress** across the Northern Hemisphere, affecting about **44%** of the globe in July. The **Arctic** and **Antarctic** experienced record-low sea ice extents, further indicating the ongoing effects of climate change.

#### Rising Greenhouse Gas Concentrations

- Concentrations of **carbon dioxide** and **methane** reached **record levels** in 2024, at **422 ppm** and **1897 ppb**, respectively, further contributing to global warming.

### Ocean Anoxic Event 1A (OAE 1a)

#### Context

- A recent study in *Science Advances* sheds light on the **timing** and **duration** of **Ocean Anoxic Event 1a (OAE 1a)**.
- Researchers analyzed **fossils** and **rocks** from **Mount Ashibetsu, Japan**, revealing the **causes** and **timeline** of this event, which led to widespread **oxygen depletion** in Earth's oceans.

#### What is OAE 1a?

- OAE 1a occurred during the **Cretaceous Period**, causing oceanic oxygen depletion and disrupting marine life.
- **Cause:** Triggered by **volcanic eruptions**, releasing **CO<sub>2</sub>**, leading to **global warming** and the formation of **anoxic marine basins**.
- **Impact:** Increased **CO<sub>2</sub>** formed **carbonic acid**, dissolving **shells** and further reducing **oxygen levels**, contributing to the **extinction** of marine species like **plankton** and creating **black shales**.

### Human Metapneumovirus (HMPV)

#### Context

- China is now grappling with a surge in cases of Human Metapneumovirus (HMPV), a respiratory virus.

#### What Is HMPV?

- **Human Metapneumovirus (HMPV)** was discovered in 2001.
- It belongs to the **Pneumoviridae** family, which also includes **Respiratory Syncytial Virus (RSV)**.

- Though identified in 2001, **serological studies** suggest HMPV has been circulating for over **60 years**.
- **Globally distributed**, HMPV causes respiratory diseases in people of all ages.

**Symptoms of HMPV**

- Cough, Fever, Nasal congestion, Shortness of breath, Transmission and Incubation

**Spreads via:**

- Respiratory droplets, Direct contact (e.g., handshakes), Contaminated objects, Incubation period: 3 to 5 days

**Prevention and Treatment**

- **Preventive measures: wearing masks, frequent hand washing, boosting immunity**
- **Antiviral drugs** not recommended, as **no vaccine** exists and symptoms often resemble the **common cold**.

## Blue Carbon

**Context**

- A groundbreaking report titled “Blue Carbon and its Role in Carbon Sequestration” was published.

**Blue carbon**

- **Blue carbon** refers to the carbon captured and stored by coastal and marine ecosystems, including **mangroves, seabeds and salt marshes**. These ecosystems are among the most efficient at storing carbon, sequestering more carbon per unit area than terrestrial forests. Blue carbon plays a crucial role in **climate change mitigation** by absorbing large amounts of carbon dioxide from the atmosphere.
- **Importance of Blue Carbon Ecosystems**
- Blue carbon ecosystems provide essential services:
  - **Climate Change Mitigation:** They store carbon, which helps reduce the concentration of greenhouse gases in the atmosphere.
  - **Coastal Protection:** They act as natural buffers, protecting coastal communities from **erosion, storm surges and rising sea levels**.
  - **Biodiversity Support:** Mangroves and other blue carbon ecosystems are critical habitats for a variety of marine species.

Aspect	HMPV	COVID-19
<i>Virus Family</i>	Pneumoviridae	Coronaviridae
<i>Severity</i>	Mild to moderate respiratory symptoms; severe cases less common.	Can cause severe illness, including pneumonia and acute respiratory distress syndrome.
<i>Respiratory Symptoms</i>	Cough, nasal congestion, fever, shortness of breath, wheezing, and sore throat.	Fever, cough, shortness of breath, loss of taste or smell, and fatigue.
<i>Vaccine Availability</i>	No vaccine currently available.	Vaccines are available and widely administered.
<i>Global Impact</i>	Causes seasonal outbreaks, primarily affecting children and the elderly.	Led to a global pandemic with significant morbidity and mortality across all age groups.
<i>Average Recovery Period</i>	Mild cases: 2 to 5 days; Severe cases: 7 to 10 days.	Mild cases: 10 days; Severe cases: Several weeks to months; Long COVID can last 12 weeks or more.
<i>Treatment</i>	Stay hydrated and rest, use OTC medications for pain, congestion, and fever.	Antivirals, monoclonal antibodies, supportive care (hydration, fever management), corticosteroids in severe cases.

## Rabbit Fever in news

**Context**

- **Rabbit Fever (Tularemia)** is a rare, potentially fatal disease caused by *Francisella tularensis*. It primarily affects humans through **contact with infected animals, bites** (e.g., tick or deer fly), or **contaminated water**.

**Symptoms:**

- **Skin ulcers** (after bites)
- **Eye irritation**

- **Breathing difficulty**
- **Sore throat and mouth ulcers**

**Transmission:**

- **Animal contact** (e.g., rabbits, rodents)
- **Inhalation** of contaminated aerosols
- **Contaminated water** consumption

**Treatment:**

- **Antibiotics** (no vaccine available in the U.S.)

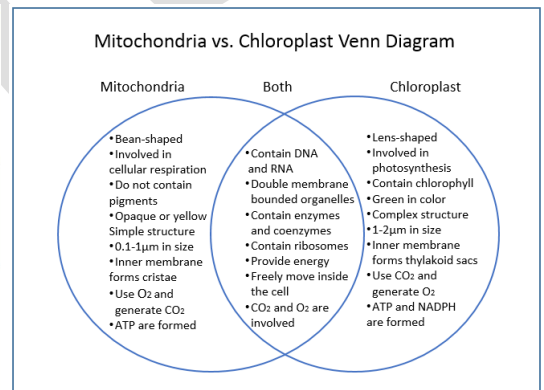
- Tularemia has seen a 56% rise in incidence from 2011-2022 compared to 2001-2010.

**Key Differences**

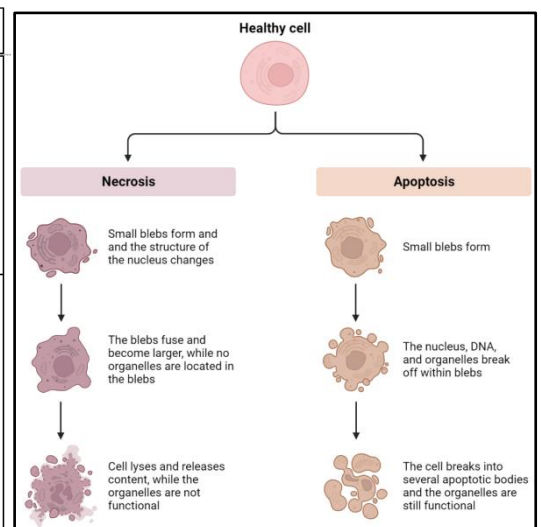
	Somatic mutation	Germline mutation
<b>Definition</b>	Mutation in cells other than germ cells.	Mutation in germ cells either sperm or egg.
<b>Heridity</b>	Non-inherited	Inherited to offsprings
<b>Nature</b>	Acquired	Sporadic
<b>Occurrence</b>	Any body parts	Whole organism
<b>Origin</b>	An stage of person's life	During germ cell division
<b>Occurrence</b>	During gametogenesis	In regular cells
<b>Presence</b>	Present in cells, tissue or organs such as kidney, liver or skin	Present in all cells of a new organism
<b>Influence</b>	Local	Nearly all body organs
<b>Role in evolution</b>	Not a definite role in evolution and natural selection	Definite role in evolution and natural selection

	Gene	Allele
<b>Definition</b>	A gene is a portion of DNA that determines a certain trait.	An allele is a specific form of a gene.
<b>Function</b>	Genes are responsible for the expression of traits.	Alleles are responsible for the variations in which a given trait can be expressed.
<b>Pairing</b>	Genes do not occur in pairs.	Alleles occur in pairs.
<b>Examples</b>	Eye color, hair color, hairline shape	Blue eyes, blonde hair, V-shaped hairline

	Active transport	Passive transport
<b>Energy Requirement</b>	Requires energy expenditure, usually in the form of ATP, to move molecules or ions against their concentration gradient.	Does not require energy input; molecules or ions move along their concentration gradient, from areas of higher concentration to areas of lower concentration.
<b>Direction of Movement</b>	Moves substances against their concentration gradient, from areas of lower concentration to areas of higher concentration.	Moves substances down their concentration gradient, from areas of higher concentration to areas of lower concentration.
<b>Transport Proteins</b>	Often involves specific transport proteins, such as pumps, which actively move substances across the membrane.	Can occur through various mechanisms including simple diffusion, facilitated diffusion through channel proteins, or facilitated diffusion through carrier proteins.



Gene Flow	Genetic Drift
The movement of genetic material from one group to another is known as gene flow. Gene flow is mediated by reproduction and vertical gene transmission from parent to offspring and may occur between two populations of the same species.	Genetic drift is an evolutionary process in which a population's allele frequencies shift over generations owing to chance.
Alternatively, horizontal gene transfer (HGT, also known as lateral gene transfer) may occur between two distinct species, such as gene transfer from bacteria or viruses to a higher creature or gene transfer from an endosymbiont to the host. Later in this chapter, we'll go into HGT in further depth. Gene flow within a group may promote genetic diversity, but gene flow between genetically distinct populations can minimise genetic disparity.	In small populations, where seldom occurring alleles have a higher likelihood of being lost, genetic drift occurs. Genetic drift will persist until the implicated allele is either lost by a population or becomes the only allele present in a population at a certain locus.
gene flow is generated by organisms migrating into new populations	genetic drift is typically caused by population decline or the creation of a new population.



**ISFR Report 2023**

**Context**

- ISFR 2023 Report was recently released.



### Details

- The **India State of Forest Report (ISFR) 2023**, released by the **Minister for Environment, Forest and Climate Change (MoEFCC)**, provides a comprehensive assessment of the **country's forest and tree resources**. It is published biennially by the **Forest Survey of India (FSI)** since 1987, relying on **remote sensing satellite data** and **field-based National Forest Inventory (NFI)**. The 2023 report is the **18th edition**, covering crucial aspects like **forest cover, tree cover, mangrove cover** and **carbon stock** in Indian forests.

### Key Highlights of ISFR 2023

- Forest and Tree Cover:**
  - Total forest and tree cover: **8,27,356.95 km<sup>2</sup>** (25.17% of India's **Geographical Area (GA)**).
  - Forest cover: **7,15,342.61 km<sup>2</sup>** (21.76%).
  - Tree cover: **1,12,014.34 km<sup>2</sup>** (3.41%).
  - Scrub** and **Non-Forest** land areas account for 1.33% and 73.50%, respectively.
- Increase in Forest and Tree Cover:**
  - Total increase: **1,445.81 km<sup>2</sup>**, with the **forest cover** rising by **156.41 km<sup>2</sup>**.
  - Top Contributors to Increase:**
    - Chhattisgarh: **684 km<sup>2</sup>**,
    - Uttar Pradesh and Odisha: **559 km<sup>2</sup>** each.
- States with Maximum Forest Cover:**
  - Madhya Pradesh: **77,073 km<sup>2</sup>**,
  - Arunachal Pradesh: **65,882 km<sup>2</sup>**,
  - Chhattisgarh: **55,812 km<sup>2</sup>**.
- Top States with High Forest Cover to GA:**
  - Lakshadweep: **91.33%**,
  - Mizoram: **85.34%**,
  - Andaman & Nicobar Islands: **81.62%**.
- Forest Carbon Stock:**
  - Total stock: **7,285.5 million tonnes**, with an increase of **81.5 million tonnes** from 2021.
  - Leading states in carbon stock: **Arunachal Pradesh** (1,021 Mt), **Madhya Pradesh** (608 Mt) and **Chhattisgarh** (505 Mt).
- Mangrove Cover:**
  - Total mangrove cover: **4,991.68 km<sup>2</sup>** (0.15% of GA), showing a slight decrease of **7.43 km<sup>2</sup>**.
  - Increase in mangrove cover in **Andhra Pradesh** and **Maharashtra**.
- Forest Fires:**
  - The **top states** experiencing forest fires in the 2023-24 season are **Uttarakhand, Odisha** and **Chhattisgarh**.
- This report is crucial for understanding **forest management, biodiversity conservation** and **carbon sequestration** in India, while also highlighting areas for improvement in forest fire prevention and mangrove conservation.

## Project Vistaar

### Context

- The Indian Institute of Technology Madras (IIT Madras) has partnered with the Ministry of Agriculture and Farmers Welfare, Government of India, to launch Project VISTAAR (Virtually Integrated System to Access Agricultural Resources).

### Details

- Project VISTAAR** is a joint initiative between the **Indian Institute of Technology Madras (IIT Madras)** and the **Ministry of Agriculture and Farmers Welfare**, aiming to enhance the agricultural extension system's effectiveness through **digitalisation**.
- The project seeks to empower **farmers** and **agriculture stakeholders** by integrating innovative technologies, providing **market information, advisory services** and tools that improve **productivity**,

sustainability and resilience. It also connects farmers to over 12,000 agriculture-related start-ups, enhancing access to technological solutions and services.

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## GENERAL SCIENCE [STATIC GK]

- **Smallest Bone in the Human Body:** Stapes (in the ear).
- **Cause of Sickle Cell Anemia:** Mutation in the hemoglobin gene.
- **Enzyme Responsible for Breaking Down Starch:** Amylase.
- **Main Source of Oxygen in Earth's Atmosphere:** Phytoplankton.
- **Part of the Brain Responsible for Memory:** Hippocampus.
- **Largest Organ in the Human Body:** Skin.
- **Factor Responsible for the Darkening of Skin:** Melanin.
- **Mode of Reproduction in Fungi:** Spore formation.
- **Type of Muscle Tissue Found in the Walls of Blood Vessels:** Smooth muscle.
- **Primary Function of the Golgi Apparatus:** Protein modification and packaging.
- **Substance that Makes Up the Cell Wall of Fungi:** Chitin.
- **Region of the Brain Responsible for Balance and Coordination:** Cerebellum.
- **Most Electronegative Element:** Fluorine.
- **Most Abundant Element in the Earth's Crust:** Oxygen.
- **Element with the Highest Atomic Number in the Periodic Table:** Oganesson (Og).
- **Most Reactive Alkali Metal:** Cesium (Cs).
- **Element Used in Filament of Light Bulbs:** Tungsten (W).
- **Most Abundant Noble Gas in the Earth's Atmosphere:** Argon.
- **Gas Used in Refrigeration:** Ammonia (NH<sub>3</sub>) or Freon.
- **Chemical in Smoke Detectors:** Americium-241 (radioactive isotope).
- **Substance Used to Remove Lead Contaminants from Water:** Activated carbon.
- **Substance Used in the Extraction of Gold:** Cyanide (NaCN).
- **The gas produced when an acid reacts with metal:** Hydrogen gas (H<sub>2</sub>).
- **The element present in the highest amount in the human body:** Oxygen.
- **The component responsible for the red color in tomatoes:** Lycopene.
- **Common solvent used in perfumes:** Ethanol.
- **The chemical in bananas that turns brown:** Phenolic compounds (oxidation).
- **When light passes through a narrow slit, the angular width of the central diffraction**

maximum is proportional to: The wavelength of light and inversely proportional to the slit width.

- The potential energy of an object in a gravitational field depends on: The mass of the object, the gravitational acceleration and the height of the object above the reference point.
- In the case of total internal reflection, the angle of incidence must be: Greater than the critical angle.
- The escape velocity for a body to leave the Earth's surface depends on: The mass and radius of the Earth.
- The angular momentum of a particle moving in a circular path is conserved when: There is no external torque acting on the system.
- The color of an object is due to: The wavelength of light it reflects.
- The pressure inside a soap bubble is higher than outside due to: Surface tension.
- The reason why a bicycle's tires become harder to pump in winter is: The air inside contracts as the temperature decreases, reducing the pressure.
- The reason an airplane's wings are designed with a curved shape is: To create a difference in air pressure above and below the wings, providing lift.
- The reason we use mirrors in telescopes is to : Reflect light and focus it onto a point, as mirrors don't absorb light like lenses do.
- Reductional division in meiosis ensures gametes have half the chromosome number, preserving genetic stability.

- **Basophils** release histamine during allergic reactions and help in inflammation.
- **Fibrinogen** is a plasma protein that is converted into fibrin during blood clotting, forming the clot's structure.
- **Lipase** in pancreatic juice breaks down fats into fatty acids and glycerol for absorption.
- **Wi-Fi mesh networks** use multiple access points to extend coverage and reduce dead zones in large spaces.
- **Trichoderma harzianum** is used as a biocontrol agent to protect plants from pathogens.
- **Albumin**, a plasma protein, helps maintain osmotic pressure and transport hormones and drugs.
- **Spleen** serves as a reservoir for platelets and recycles iron from hemoglobin of aged red blood cells.
- The **11th and 12th ribs** are called **floating ribs** because they are not attached to the sternum.
- **Ionizing radiation** carries enough energy to remove tightly bound electrons, forming ions, while **non-ionizing radiation** lacks sufficient energy to ionize atoms.
- Examples of **ionizing radiation** include X-rays, gamma rays and high-energy particles like alpha and beta rays.
- **Non-ionizing radiation** includes radio waves, microwaves, visible light and infrared radiation, which mainly cause heating effects.
- **Ionizing radiation** damages DNA directly, leading to mutations and potentially cancer, while **non-ionizing radiation** generally causes superficial tissue heating.
- **UV-C radiation** is a high-energy non-ionizing radiation but can cause DNA damage.

**KEY DIFFERENCES**

<b>Metallic minerals</b>	<b>Non-metallic minerals</b>
Minerals containing metals are called metallic minerals.	Minerals which do not contain metals are called non-metallic minerals.
These minerals are malleable and ductile.	Non-metallic minerals are non-malleable and non-ductile.
These minerals are generally associated with igneous and metamorphic rocks.	These minerals are associated with sedimentary rocks.
Metallic minerals show lusture.	Non-metallic minerals do not show lusture.
Iron-one, manganese, copper, tin, etc are its examples.	Gypsum, potash, salt, etc are its examples.

## DEFENCE & SECURITY

### Nag Mk-2 Anti-Tank Missile

#### Context

- India recently conducted successful field trials of the **Nag Mk-2** missile at the Pokhran Field Range, Rajasthan.

#### Key Highlights

- Type:** Indigenously developed 3rd generation **fire-and-forget** Anti-Tank Guided Missile.
- Developer:** Designed by **DRDO** under the **Integrated Guided Missile Development Programme (IGMDP)**.
- Technology:** Equipped with fire-and-forget precision targeting, requiring minimal operator intervention.
- Capability:** Can neutralize modern armoured vehicles with **explosive reactive armour (ERA)**.
- Platform:** Integrated with the **Nag Missile Carrier (NAMICA)** for enhanced battlefield mobility.
- Range:** **7-10 km**, an upgrade from the 4-km range of Nag Mk-1.

### India has joined the Eurodrone

#### Context

- India has joined the **Eurodrone** (Medium Altitude Long Endurance Remotely Piloted Aircraft System - MALE RPAS) program, managed by the **Organisation for Joint Armament Cooperation (OCCAR)** and led by **Airbus Defence and Space**.

#### Details

- The initiative aims to reduce Europe's dependence on U.S. and Israeli drones, strengthening defense ties between India and Europe.

#### Eurodrone Features:

- Max Payload:** 2.3 tonnes
- Endurance:** Up to 40 hours
- Motor Configuration:** Dual-motor
- Operational Environment:** Harsh weather
- Established:** 2022
- Service Entry:** 2030
- Applications:** Intelligence, Surveillance, Maritime Surveillance, Anti-Surface Warfare, Early Warning

- Participating Countries:** Germany, France, Italy, Spain
- Purpose:** Reduce reliance on U.S. and Israeli drones like **Reaper** and **Heron**.

#### Strategic Importance for India:

- Strengthens defense ties with Europe.
- Involvement in **C-295 production, Rafale M** and **Scorpene-class submarines**.
- Aligns with shared defense objectives.

#### Organisation for Joint Armament Cooperation (OCCAR)

It is a European intergovernmental organisation that facilitates and manages collaborative armament programmes through their lifecycle between the governments of Belgium, France, Germany, Italy, Spain and the United Kingdom.

- Established:** November 12, 1996
- Members:** Belgium, France, Germany, Italy, Spain, UK
- Non-Members:** EU, NATO countries, Australia
- Headed by:** Joachim Sucker (since February 2023)

### Operation Sard Hawa

#### Context

- The **BSF** has heightened vigilance at the **Jaisalmer-Pakistan border** to prevent infiltration during winter fog. The operation, called **Operation Sard Hawa**, started on **January 22**.

#### Details of Operation Sard Hawa

- Patrolling:** Officers and soldiers are equipped with **modern weapons** and **advanced technology** to see through fog. **Camel patrols** are also increased in tough terrains.
- Intelligence:** The **BSF intelligence wing** works closely with other agencies to monitor suspicious activity.
- Personnel:** Soldiers from headquarters are deployed at border posts.

#### Objectives of the Operation

- Strengthen security** with more **weapons** and **manpower**.
- Increase soldier presence** along the border.
- Boost surveillance** and **intelligence systems**.
- Dominate the border** day and night.

## 'Sanjay', a Battlefield Surveillance System (BSS)

### Context

- Defence Minister Rajnath Singh flagged off 'Sanjay', a battlefield surveillance system (BSS) to be inducted into the Indian Army by October 2025.

### Details of Sanjay System

- Automated Surveillance:** Sanjay integrates data from ground and aerial sensors, processes it for accuracy and creates a **real-time common surveillance picture** over secure networks.
- Induction Plan:** The system will be rolled out in **three phases** between **March and October 2025** across Army brigades, divisions and corps.
- Enhanced Battlefield Transparency:** It will provide inputs to **Command & Army Headquarters**, improving decision-making and overall battlefield clarity.

### Key Features and Impact

- State-of-the-art Technology:** Equipped with advanced **sensors** and **analytics**, the system will improve intelligence, **surveillance** and **reconnaissance** capabilities.
- Network-Centric Operations:** It supports both **conventional** and **sub-conventional** operations in a **data-driven** environment, enabling commanders to react swiftly.
- Indigenous Development:** Developed by Indian Army and **Bharat Electronics Limited (BEL)**, it aligns with India's push for **self-reliance** under **Aatmanirbharta**.

### Significance

- Force Multiplier:** The system enhances intelligence and **prevents intrusions**, becoming a vital asset for national security.
- Operational Efficiency:** The centralized application provides a **holistic view** of the battlefield, aiding faster decisions and improving military effectiveness.

## Fourth Edition of the Multinational Exercise La Perouse

### Context

- The Indian Navy is participating in the **fourth edition** of the **Multinational Exercise LA PEROUSE**, aboard the indigenously designed and built **guided missile destroyer INS Mumbai**.

### Details

- The exercise involves various maritime partners, including the **Royal Australian Navy**, **French Navy**, **Royal Navy**, **United States Navy**, **Indonesian Navy**, **Royal Malaysian Navy**, **Republic of Singapore Navy** and **Royal Canadian Navy**.

### Objective of the Exercise

- Maritime Situational Awareness:** The exercise focuses on enhancing cooperation in **maritime surveillance**, **maritime interdiction operations** and **air operations**.
- Tactical Interoperability:** It aims to improve **planning**, **coordination** and **information sharing** among navies for greater **tactical interoperability**.

### Key Activities

- Multi-Domain Exercises:** The exercise includes **surface warfare**, **anti-air warfare**, **air-defense** and **cross-deck landings**.
- Tactical Maneuvers:** Operations such as **Visit, Board, Search and Seizure (VBSS)** and other constabulary missions will be conducted.

### Strategic Significance

- Synergy and Coordination:** The participation of the Indian Navy demonstrates **high levels of synergy**, **coordination** and **interoperability** between like-minded navies.
- Commitment to Rules-Based Order:** It highlights the navies' commitment to a **rules-based international order** in the maritime domain.

### India's Vision: SAGAR

- Security and Growth for All in the Region (SAGAR):** The exercise aligns with India's vision to enhance **maritime cooperation** and promote a **secure Indo-Pacific Region**.

## Exercise Devil Strike

### Context

- The Indian Armed Forces conducted **Exercise Devil Strike** from **January 16 to 19**, involving elite airborne soldiers from the Indian Army and the Indian Air Force.

### Details

- This joint exercise focuses on validating critical drills and improving operational readiness in a challenging environment.

### Key Objectives of the Exercise

- **Complex Airborne Operations:** The exercise will involve **troop and equipment insertion** in hostile terrain, testing airborne forces' capabilities.
- **Logistic Sustainment:** The exercise will focus on refining **logistic sustainment strategies** to ensure troops remain well-equipped and operational under challenging conditions.

### Technological Integration

- **Advanced Equipment:** State-of-the-art equipment and technologies will be used to facilitate highly accurate and efficient delivery of airborne forces to remote locations.

## INS Utkarsh

### Context

- Larsen & Toubro (L&T) has launched the second multi-purpose vessel (MPV), **INS Utkarsh**, for the Indian Navy at its **Kattupalli Shipyard** near **Chennai**. This launch follows the debut of **INS Samarthak**, which was launched just three months earlier.

### Key Features of the MPVs

- **Versatile Roles:** MPVs like **INS Utkarsh** are highly specialized vessels with multiple roles, including:
  - **Trial Platforms** for developing next-generation weapons and sensors.
  - **Maritime Surveillance.**
  - **Humanitarian Assistance.**
  - **Combatting Sea Pollution.**
  - **Launch and Recovery** of surface and aerial assets.

## India-US Partnership: Co-production of Sonobuoys for the Indian Navy

### Context

- India and the US have partnered to **co-produce American sonobuoys** in India for enhancing the **Indian Navy's undersea domain awareness** by 2027.

*Sonobuoys are small, expendable underwater acoustic sensors that are used to detect and track*

*submarines. They are used in anti-submarine warfare and underwater acoustic research.*

### Key Details of the Partnership

- **Joint Production:** The sonobuoys will be co-produced by **Ultra Maritime (USA)** and **Bharat Dynamics Limited (BDL)** (India). The initiative is aligned with India's **Make in India** mission and involves **technology transfer** to India, as well as potential integration of Indian suppliers into the global supply chain.
- **Enhanced Interoperability:** The sonobuoys will be manufactured to **US specifications**, ensuring compatibility with aircraft used by the **US, Indian and allied navies**. These will be identical to those used on **P-8 aircraft** and compatible with platforms like **P-8, MH-60R and MQ-9B Sea Guardian** aircraft.
- **Production Location:** The final assembly of the sonobuoys will take place in **India**, with **Vishakhapatnam** as a likely location for the production facility.

### Strategic and Technological Impact

- **Undersea Domain Awareness:** This collaboration strengthens the **India-US defense partnership** and aims to enhance India's ability to detect submarines, especially with the growing presence of China in the Indian Ocean. The partnership is also a part of the broader **US-India Initiative on Critical and Emerging Technologies (ICET)**.
- **Regional Cooperation:** The project also reinforces India's growing cooperation with **regional partners** within the **Quad** (Australia, Japan and the US), enhancing maritime security and interoperability through **Malabar naval exercises**.
- **Future Developments:** As part of the strategic expansion, the co-production of sonobuoys will also lead to advancements in technologies suited for the **Indian Ocean's acoustic environment** and **alternative sensor technologies**, like **seabed-embedded sensors**, are also under exploration with Indian start-ups.

## Abdali Missile

### Context

- Dhaka is set to purchase the **Abdali Short Range Ballistic Missiles (SRBMs)** aka the **Hafz 2** missiles, from Pakistan.

### Abdali Missile

- The **Abdali Missile (Hatf 2)** is a **short-range ballistic missile** developed by the **Pakistan Space Research Commission (SUPARCO)**. It is designed for quick response in battlefield scenarios, capable of targeting military assets and critical infrastructure.

#### Features of Abdali Missile

- Range:** 180-200 km, making it suitable for regional conflicts and rapid retaliation.
- Payload:** Likely to carry **high explosive** or **submunitions**.
- Guidance System:** **Inertial guidance system** for precise targeting.
- CEP (Circular Error Probable):** 150 meters, which indicates a relatively high accuracy?
- Engine:** Powered by a **single-stage solid fuel engine**.
- Transport:** The missile is road-mobile and transported on a **Transporter-Erector-Launcher (TEL)** vehicle, which allows it to be quickly deployed and launched.
- Destructive Power:** The relatively **small warhead** makes it ideal for targeting military bases, airfields and critical infrastructure.

## Exercise Surya Kiran

### Context

- The 18th edition of the Battalion-Level Joint Military Exercise, SURYA KIRAN, is set to be

conducted between the Indian Army and the Nepalese Army.

### Exercise Surya Kiran

- Exercise Surya Kiran** is an **annual joint military exercise** between the **Indian Army** and the **Nepalese Army**. It is conducted alternately in both countries and aims to enhance **interoperability in jungle warfare, mountain counter-terrorism operations** and **humanitarian disaster relief** under the **United Nations Charter**.

#### Key Objectives:

- Operational Capabilities:** Both armies work together through **war games** to improve their skills and strengthen their coordination in challenging scenarios.
- Exchange of Ideas:** The exercise provides a platform for soldiers to exchange **ideas, best practices** and improve mutual understanding of each other's operational procedures.
- Humanitarian Assistance:** Focus on enhancing joint efforts in providing **disaster relief** and **humanitarian assistance** in times of crisis.

#### 18th Edition of Surya Kiran:

- Location:** Saljhandi, Nepal.
- Indian Army Representation:** A battalion from the 11th Gorkha Rifles.
- Nepalese Army Representation:** The Srijung Battalion.



# WBCS 2022 ONLINE MOCK INTERVIEW with Grooming Session

### Our Eminent Panel Members



**SRIMAN BANERJEE**  
WBCS Executive Officer



**R. K. JOHRI**  
Retd. IPS, Ex IG, West Bengal Police



**SHAON SEN SAHA**  
Addl. Secretary, Labour Govt of WB



**INDRANIL CHAKRABORTY**  
Dy. Commissioner of Revenue



**POMPA SUR**  
Spl. Commissioner of Revenue, Govt. of WB



**SURAJIT ROY**  
Additional Secretary, Education, Govt. of WB

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## ECONOMY

### CheQ Wisor

#### Context

- CheQ introduces CheQ Wisor, an AI-powered tool aimed at helping individuals manage their credit cards efficiently.

#### What is CheQ Wisor?

- **CheQ Wisor** is India's first **AI-powered credit card expert**, developed by CheQ, a leading **credit management platform**. The tool is designed to help users efficiently manage their credit cards by providing **personalized insights, real-time assistance** and **comprehensive analysis** of credit usage.

#### Key Features:

- **Spends Insights:** Provides users with a detailed summary of their spending patterns in a user-friendly dashboard.
- **Unified Rewards View:** Allows users to access and analyze all their credit card rewards in one convenient location.
- **Personalized Tips:** Offers tailored recommendations to help users optimize their rewards and minimize costs based on their individual spending habits.

#### Target Audience:

- CheQ Wisor is specifically designed for users, particularly those aged **25-45**, helping them make smarter financial decisions and maximize the value of their credit cards with ease.

### Consumer Protection Act, 2019 and Central Consumer Protection Authority (CCPA)

#### Context

- The Central Consumer Protection Authority (CCPA) issued notices to Ola and Uber for allegedly charging different rates based on mobile phone operating systems.

#### Central Consumer Protection Authority (CCPA)

- The **Consumer Protection Act, 2019** ensures consumer rights against unfair trade practices, defective goods and misleading advertisements. It replaced the **Consumer Protection Act, 1986** and outlines **6 key rights** for consumers, including:
  - **Right to Protection** against hazardous goods/services

- **Right to Information** on quality, price and standards
- **Right to Choice** at competitive prices
- **Right to be Heard**
- **Right to Seek Redressal** against unfair practices
- **Right to Consumer Awareness**

#### Central Consumer Protection Authority (CCPA)

- The **Central Consumer Protection Authority (CCPA)**, established under **Section 10(1)** of the Act, enforces these rights. It regulates violations, such as **unfair trade practices** and **misleading advertisements** and has an **investigation wing** for inquiry and action.

#### Key functions of the CCPA include:

- Investigating consumer rights violations
- Ordering **recall of goods** or **withdrawal of hazardous services**
- Imposing penalties up to **Rs 10 lakh** and imprisonment for misleading ads
- Issuing **safety notices** to consumers
- The **Consumer Disputes Redressal Commissions (CDRCs)** at the **District, State** and **National** levels address complaints based on the value of goods/services. Appeals from the **State CDRC** are heard by the **National CDRC**, with the **Supreme Court** being the final appellate authority.
- The CCPA, a statutory body, consists of a **Chief Commissioner** and two **Commissioners** for goods and services, appointed by the **Central Government**.

### India's Nuclear Power Growth

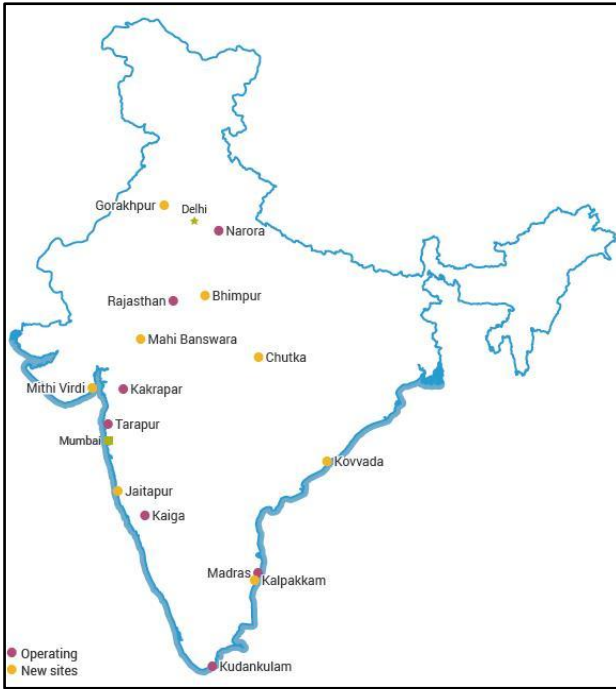
#### Context

- India's **nuclear power generation capacity** has nearly **doubled** in the last decade, increasing from **4,780 MW** in **2014** to **8,180 MW** in **2024**. This was shared by Union Minister of State for Science and Technology.

#### India's Thorium Reserves

- India holds **21% of the global thorium reserves**, with indigenous projects like "**Bhavani**" under development to harness this resource, reducing dependence on imported uranium.





### India's Nuclear Energy

- Homi Bhabha, established the **Tata Institute of Fundamental Research (TIFR)** in 1945 to focus on nuclear science.
- Following independence, Prime Minister **Jawaharlal Nehru** created the **Atomic Energy Commission (AEC)** in 1948.
- In the late 1960s, India began developing its own **Pressurized Heavy Water Reactor (PHWR)** for self-reliance in nuclear energy. The **Kakrapar Atomic Power Station 3 & 4** (2 x 700 MW) is the largest indigenous PHWR, featuring **advanced safety measures** that meet global standards.
- As of November 2024, India has **24 nuclear reactors in operation** in 8 nuclear power plants, with a total installed capacity of **8,180 MW**.
- Nuclear power **produced a total of 48 TWh in 2023, contributing around 3% of total power generation in India.**
- India's **PFBR at Kalpakkam** marks a key step in its three-stage nuclear program, positioning India alongside **Russia** in operating **Fast Breeder Reactors (FBRs)**.
- **Bharat Small Reactors (BSRs)** will drive India's future energy mix, targeting **40-50 units** to replace thermal plants.
- India plans to expand its nuclear capacity from **8,180 MW to 100 GW by 2047**, supported by initiatives like **BSRs and FBRs**.

## Confederation of Indian Industry (CII)

### Context

- Confederation of Indian Industry (CII) establishes a Strategy Cell in Coimbatore to empower industries, guiding them towards global competitiveness and sustainable growth.

### Confederation of Indian Industry (CII)

- The **Confederation of Indian Industry (CII)**, founded in **1895** and headquartered in **New Delhi**, is a non-governmental trade association and advocacy group.
- CII engages with **business, political, academic and societal leaders** to influence **global, regional and industry agendas**. It operates as a **membership-based organisation**.

## India's Foreign Exchange Reserves

### Context

- India's **foreign exchange reserves** dropped by **\$17.8 billion to \$657.89 billion** in the week of November 15, marking the sharpest weekly fall on record.

### Details

- This decline was triggered by a stronger **US dollar** following the **US election verdict** and possible **RBI dollar sales** to stabilize the rupee. The **rupee** hit a record low of **84.5013** and continues to face pressure from **foreign outflows** and election-related concerns.
- **Key changes included:**
  - **Gold reserves** decreased by **\$2.068 billion** to **\$65.746 billion**.
  - **Special Drawing Rights (SDRs)** fell by **\$94 million** to **\$18.064 billion**.
  - **RBI's reserve position with the IMF** dropped by **\$51 million** to **\$4.247 billion**.

### What are Foreign Exchange Reserves?

- **Foreign exchange reserves (forex reserves)** are assets held by a central bank or monetary authority to manage a country's liabilities, such as currency issued and deposits by financial institutions. These reserves typically include:
  - **Reserve currencies:** Primarily the **US dollar, Euro, British pound and Japanese yen**.

- **Foreign assets:** These include **foreign bank notes, deposits, treasury bills and government securities** (both short-term and long-term).
- **Gold reserves.**
- **Special Drawing Rights (SDRs) and IMF reserve positions.**
- In essence, forex reserves ensure a country can meet its financial obligations and provides a cushion during economic crises.

### Importance of Forex Reserves

- **Crisis Management:** Forex reserves act as a safeguard during periods of **economic contraction**.
- **Import Coverage:** They are enough to cover the **import bill** for a year.
- **Currency Stability:** Help in strengthening the **rupee** against the dollar.
- **Market Confidence:** Provide confidence that the country can meet external obligations and maintain currency stability.
- **External Debt Management:** Aid in meeting **foreign exchange needs** and servicing external debt.
- **Emergency Funds:** Reserve for national disasters or emergencies.

### What does the RBI do with Forex Reserves?

- The **Reserve Bank of India (RBI)** manages and uses forex reserves within a policy framework set with the government:
  - **Foreign Currency Management:** It **buys or sells** dollars to manage the value of the rupee.
  - **Sterilization:** When the RBI buys dollars, it injects rupees into the economy. This excess liquidity is controlled through bonds and **Liquidity Adjustment Facility (LAF)** operations.
  - **Remittance Support:** Allocates dollars for schemes like the **Liberalised Remittance Scheme (LRS)**, allowing individuals to remit up to **\$250,000** annually.
- In short, RBI's management of forex reserves ensures currency stability and supports India's external financial obligations.

## Department for Promotion of Industry and Internal Trade (DPIIT)

### Context

- DPIIT has recently **approved** the ₹10,000-crore acquisition of **Reliance Capital** by **IndusInd International Holdings (IIHL)**

### Department for Promotion of Industry and Internal Trade (DPIIT)

- The **Department for Promotion of Industry and Internal Trade (DPIIT)** is a central government department under the **Ministry of Commerce and Industry**, responsible for promoting and facilitating the growth of India's industrial sector.
- It formulates and implements policies aimed at boosting industrial development, facilitating **foreign direct investment (FDI)** and fostering **internal trade**.

### Key Initiatives

- **Bhaskar:** An initiative aimed at fostering a dynamic startup ecosystem, connecting entrepreneurs, government bodies, investors and academic institutions on a unified platform.

### DPIIT's Role in Industry and Trade

- **Promotion of Industrial Cooperation:** It coordinates with organizations like **CII (Confederation of Indian Industry)** and **FICCI (Federation of Indian Chambers of Commerce and Industry)** to promote industrial cooperation.
- **Foreign Trade:** DPIIT also contributes to the development of policies to boost **internal trade** and align them with global trade practices.

## SPORTS

## ICC Men's Test Cricketer of The Year 2024 Title

### Context

- **Jasprit Bumrah** won ICC Men's Test Cricketer of the Year 2024 title.

## Key Highlights of Bumrah's Performance

### Overall Stats

- **Wickets:** 71 in 13 matches
- **Average:** 14.92 (lowest among bowlers with 70+ wickets in a calendar year)
- **Strike Rate:** 30.1
- **Economy Rate:** 2.96
- **Overs Bowled:** 357
- **Milestone:** Only bowler in Test history with 200+ dismissals at an average below 20 (19.4).

### Series Contributions

- **South Africa (Cape Town):** 8 wickets in two innings; pivotal in an eight-wicket win.
- **England (Home Series):** 19 wickets in five matches, leading to a dominant 4-1 series victory.
- **Australia (Border-Gavaskar Trophy):** 32 wickets in five matches; earned Player of the Series and achieved the 200 Test wickets milestone.

### Memorable Performances

- **Perth Test (Australia):** Match figures of 5/30 and 3/42, leading India to a historic 295-run win at Perth.
- Stepped up as captain in Rohit Sharma's absence, showcasing exceptional leadership.

## ICC Women's ODI Cricketer of The Year 2024

### Context

- Smriti Mandhana has earned the title of ICC Women's ODI Cricketer of the Year 2024.

### Key Highlights: Overview/Stats

- **Runs Scored:** 747 runs in 13 matches, becoming the **leading run-scorer in WODIs** for 2024.
- **Batting Average:** 57.86, reflecting her consistency in the format.
- **Strike Rate:** 95.15, showcasing her balanced aggression at the crease.
- **Centuries Scored:** Four, a record for women's ODIs in a single year.
- **Boundary Count:** 95 fours and 6 sixes, highlighting her ability to dominate bowlers.

### Notable Performances

- **Against South Africa:** Back-to-back centuries led India to a **3-0 series win** in June.
- **Against New Zealand:** A match-winning century in the **series decider** in October.
- **Against Australia:** A valiant **105 at the WACA, Perth**, against the world's top-ranked team in December.

## ICC Women's Championship

- Mandhana finished as the **highest run-scorer** in the championship with **1,358 runs in 24 matches**.

## ICC Men's ODI Cricketer Of The Year

### Context

- Azmatullah Omarzai, Afghanistan's star all-rounder, excelled in 2024 with impactful right-arm pace and versatile batting, earning the title of **ICC Men's ODI Cricketer of the Year**.

### Azmatullah Omarzai's Stellar ODI Record in 2024

- **Runs and Wickets:** 417 runs and 17 wickets in 14 matches
- **Batting Average:** 52.12
- **Bowling Average:** 20.47

### Key Performances in 2024

#### Unbeaten 149 Against Sri Lanka:

- Scored 149\* in Afghanistan's loss to Sri Lanka in the first ODI of the year.
- Played a remarkable rearguard effort despite the defeat.

#### 86 Against South Africa:

- Scored 86\* from just 50 balls in the second ODI.
- His rapid scoring helped Afghanistan secure a series win.

## International Open Chess Tournament Title in Malaysia

### Context

- Indian Grandmaster Iniyam Panneerselvam dominated the 9th Johor International Open Chess Tournament in Malaysia.

### Details

- **Champion:** Iniyam Panneerselvam (22) from Erode, Tamil Nadu
- **Total Points:** 8.5/9, 1.5 points ahead of the nearest rival
- **Tournament:** 84 participants from 8 countries, 24 titled players
- **Key Victories:** Defeated 4 International Masters and 1 Grandmaster, including Indonesian IM Nayaka Budhidharma and Vietnamese GM Nguyen Van Huy.

### Final Standings:

- 2nd: Indian IM VS Raahul
- 3rd: Chinese IM Li Bo

- **Additional Achievement:** Won the Chennai Open in January, securing 15 rating points.

## ATP 500 Tournaments

### Context

- **World number one and reigning Australian Open champion Jannik Sinner** has withdrawn from the upcoming ATP 500 tennis tournament in Rotterdam.

### Details

- The ATP 500 tournaments are a key tier in men's tennis, ranking just below the four Grand Slam events, ATP Finals and ATP Masters 1000.
- **Level:** Fourth-highest tier of men's tennis.
- **Points:** 500 ranking points for singles champions
- **Tournaments:** 16 tournaments as of 2025
- **Participation:** Leading players must compete in at least four ATP 500 events, including one after the US Open; failure to do so results in a "zero" score for each missing event.

### Records:

- **Most Singles Titles:** Roger Federer (24)
- **Most Doubles Titles:** Daniel Nestor (20)

## ICC Awards 2024 Winners

### Context

- The ICC Awards 2024 revealed the winners of several prestigious categories, recognizing the standout performances in international cricket across men's and women's cricket.

### Details

#### ICC Emerging Men's Cricketer of the Year

- **Winner:** Kamindu Mendis (Sri Lanka)
- **Achievement:** Fastest player to reach 1,000 Test runs in 75 years
- **Notable Performance:** Scored 1,049 runs in 9 Tests, including twin centuries against Bangladesh

#### ICC Emerging Women's Cricketer of the Year

- **Winner:** Annerie Dercksen (South Africa)
- **Achievement:** Key player in South Africa's T20 World Cup final run
- **Notable Performance:** 161 runs at an average of 32.20 and 5 wickets

#### ICC Men's Associate Cricketer of the Year

- **Winner:** Gerhard Erasmus (Namibia)
- **Achievement:** Stellar year with consistent performances in ODI and T20I

- **Notable Performance:** Career-best 5-28 against Nepal, four half-centuries in ICC tournaments

#### ICC Women's Associate Cricketer of the Year

- **Winner:** Esha Oza (UAE)
- **Achievement:** Consistent all-round performances for UAE
- **Notable Performance:** 711 runs in the year, including an unbeaten 114 against Oman

#### ICC Umpire of the Year

- **Winner:** Richard Illingworth
- **Achievement:** Awarded for consistent decision-making and strong relationships with teams
- **Notable Performance:** Third consecutive win, known for his exemplary officiating

## ICC T20I Cricketer Of The Year

### Context

- As part of the ICC Awards 2024, Arshdeep Singh was honored as the **ICC Men's T20I Cricketer of the Year**, while Amelia Kerr claimed the **ICC Women's T20I Cricketer of the Year**.

#### ICC Men's T20I Cricketer of the Year

- **Winner:** Arshdeep Singh (India)
- **Achievement:** Stellar year with a standout performance in the ICC Men's T20 World Cup 2024
- **Notable Performance:** Took 36 wickets in 18 T20Is with an average of 15.31 and an economy rate of 7.49
- **Impact:** Dominated with the ball, particularly in powerplays and death overs, contributing significantly to India's T20 World Cup triumph

#### ICC Women's T20I Cricketer of the Year

- **Winner:** Amelia Kerr (New Zealand)
- **Achievement:** Consistent all-round performances throughout the year
- **Notable Performance:** Integral in New Zealand's success in T20I cricket, contributing with both bat and ball.

## Jay Shah inducted into MCC

### World Cricket connects

#### Advisory Board

### Context

- Former Indian cricket captain **Sourav Ganguly** and **Jay Shah**, the former secretary of the

Board of Control for Cricket in India (BCCI), are now members of the newly formed **Marylebone Cricket Club (MCC) World Cricket Connects Advisory Board**.

### **Marylebone Cricket Club (MCC) World Cricket Board**

- The **MCC World Cricket Connects Advisory Board** replaces the previous **World Cricket Committee**.
- **Ganguly** and **Shah** are now key members of this newly formed council.
- **Kumar Sangakkara**, former **MCC president**, leads the 13-member board.

### **Replacing the World Cricket Committee**

- The **World Cricket Committee** had significant influence despite not being formally empowered.
- The committee-initiated changes like the **Decision Review System (DRS)**, **World Test Championship (WTC)**, **Day-Night Pink Ball Tests** and **Slow Over Rate Time Out**.
- The new advisory board continues this legacy, guiding cricket's developments.

### **Regular Meetings and Annual Gatherings**

- The board will meet regularly and hold an annual gathering to discuss improvements and ideas for cricket's growth. Their goal is to contribute to the sport's global evolution.

## **Khelo India Winter Games 2025**

### **Context**

- The **Khelo India Winter Games 2025** concluded its first phase in Ladakh.

### **Key Highlights:**

- **Ladakh's Success:** In their second year as hosts, Ladakh secured **two gold medals** in the first phase of **KIWG 2025**.
- **Ice Hockey Finals:** The Indian Army defeated **ITBP 2-1** in a thrilling men's ice hockey final to retain their title.
- **Women's Ice Hockey:** **Ladakh** dominated in women's ice hockey, avenging last year's defeat by **ITBP** with a 4-0 victory.
- **Skating Success:** **Tamil Nadu** made a mark in skating, winning **three golds**, including a win in the 500m women's long track event.

### **About Khelo India Winter Games:**

- The **Khelo India Winter Games**, part of the **Khelo India Scheme**, provide a platform for young athletes to showcase their skills.
- The games are organized by the **Ministry of Youth Affairs & Sports (MYAS)** and aim to promote regional talent, culture and tourism through sports.
- The fifth edition of **KIWG 2025** is being hosted in Ladakh and **J&K**, covering ice and snow disciplines.

## **India to host FIDE Chess World Cup 2025**

### **Context**

- India will host the **FIDE Chess World Cup 2025** from **October 31 to November 27, 2025**.

### **FIDE World Cup 2005–Present:**

- Since 2005, the **FIDE World Cup** has become a key event in the **World Chess Championship cycle**, held biennially. The **128-player knockout** tournament features **7 single-elimination rounds**, with **2 games** per match. If needed, **rapid** and **blitz tiebreakers** are used. The final typically consists of **4 games**, with tiebreaks following if necessary.
- **Qualification for Candidates Tournament:** Each World Cup qualifies between one to three players for the **Candidates Tournament**, which determines the challenger for the **World Chess Championship**.

## **India Open Super 750 Badminton Tournament**

### **Context**

- **Viktor Axelsen**, the Danish badminton star, clinched the men's singles title at the **India Open Super 750** tournament in New Delhi.

### **India Open**

- The **India Open** began in **2008** as an integral event in the **Badminton World Federation (BWF) World Tour**.
- The tournament was initially classified as a **Grand Prix Gold** event.
- **Upgrade to Superseries:** In **2011**, the **India Open** was upgraded to a **BWF Superseries** tournament.
- In **2023**, the **India Open** was further upgraded to a **BWF World Tour Super 750** event,

reflecting its increasing importance in the global badminton arena.

## Karnataka won The Vijay Hazare Trophy (VHT) 2024-25 final

### Context

- Karnataka won the **Vijay Hazare Trophy (VHT) 2024-25 final** by defeating Vidarbha by **36 runs** at **Kotambi Stadium, Vadodara**.

### Details

- Karnataka finished with a total of **348/6** in **50 overs**, setting a challenging target for Vidarbha.
- **Ravichandran Smaran**: Scored a blistering **101 runs off 92 balls**, marking his second **List A** century.
- This is **Karnataka's fifth Vijay Hazare Trophy title** after wins in **2013-14, 2014-15, 2017-18 and 2019-20**.

### Vijay Hazare Trophy

- The **Vijay Hazare Trophy** (officially known as the **IDFC First Bank Vijay Hazare Trophy** for sponsorship reasons) is an annual **List A** cricket competition organized by the **Board of Control for Cricket in India (BCCI)**. Initially, the tournament was played at the zonal level, but it was expanded to a **national competition** in the **2002-03** season. Teams from **Indian states and union territories** participate, with a format of **50 overs per side**.

## Djokovic breaks Grand Slam matches record at Australian Open

### Context

- **Novak Djokovic** surpassed **Roger Federer's** record for the most-Grand Slam matches played, reaching **430 matches**. He defeated **Jaime Faria** 6-1, 6-7 (4), 6-3, 6-2 in the second round, improving his career Grand Slam record to **379-51** with a **.881 winning percentage**.

### Key Achievements

- **24 Grand Slam Titles**: Most by any male player, ahead of **Nadal's 22** and **Federer's 20**.

- **37 Slam Finals**: Djokovic has reached **6 more** finals than Federer's previous record.
- **25th Slam Title**: A win at the Australian Open would mark his **25th Grand Slam** title, setting a new record.

## India's Fastest Women's ODI Century

### Context

- Indian Women's cricket team captain **Smriti Mandhana** scored a record-breaking **century** in the third **Women's One Day International (ODI)** against **Ireland**.

### Details

- **Smriti Mandhana** scored a **century in 70 balls**, setting a new record for the fastest century by an Indian woman in ODIs.
- This milestone broke the previous record of **87 balls**, set by **Harmanpreet Kaur** against South Africa.
- **Mandhana's 10th ODI century** ties her with **Tammy Beaumont** for the third-most centuries in women's ODIs.
- **Meg Lanning** (15 centuries) and **Suzie Bates** (13 centuries) lead the list.

### Notable Statistics:

#### Fastest hundreds for India Women in ODIs:

- **70** - Smriti Mandhana vs Ireland, Rajkot (2025)
- **87** - Harmanpreet Kaur vs South Africa, Bengaluru (2024)

#### Highest partnerships for India Women in WODIs:

- **320** - Punam Raut & Deepti Sharma vs Ireland, Potchefstroom (2017)
- **258\*** - Mithali Raj & Reshma Gandhi vs Ireland, Milton Keynes (1999)
- **233** - Smriti Mandhana & Pratika Rawal vs Ireland, Rajkot (2025)

## Kho Kho World Cup 2025

### Context

- The **Kho Kho Federation of India (KKFI)** has officially launched the trophies and mascots for the inaugural **Kho Kho World Cup 2025**.

### Event Overview

- **Dates**: January 13-19, 2025. **Venue**: Indira Gandhi Indoor Stadium, New Delhi
- **Participants**: 21 men's teams and 20 women's teams from **24 countries** across six continents

- **Governing Body:** Conducted under the aegis of the Sports Authority of India (SAI)

### Trophies Unveiled

#### Men's Trophy (Blue):

- **Symbolism:** Trust, determination and universal appeal
- **Design:** A modern design featuring flowing curves and golden figures

#### Women's Trophy (Green):

- **Symbolism:** Growth and vitality

- **Design:** Shares similarities with the men's trophy, with intricate crystal detailing to highlight precision and excellence

#### Mascots: Tejas and Tara

- **Tejas:** A blue gazelle representing brilliance and energy
- **Tara:** An orange gazelle symbolizing guidance and aspiration
- **Design Elements:** Both mascots incorporate traditional Indian motifs, blending cultural heritage with modern appeal.

## APPOINTMENTS

President of the Institute of Company Secretaries of India (ICSI)	Dhananjay Shukla. Pawan G Chandak is the Vice President. ICSI: Established under the Company Secretaries Act, 1980, ICSI is a statutory body under the Ministry of Corporate Affairs focused on regulating and developing the profession of company secretaries in India.
Chairperson of the Athletics Commission of the Athletics Federation of India (AFI)	Former long-jumper and world bronze medalist <b>Anju Bobby George</b> . She also serves as the Vice President of the AFI.
Board of Control for Cricket in India (BCCI) Secretary	Devajit Saikia
BCCI Treasurer	Prabhtej Singh Bhatia
Ireland's Prime Minister	Micheál Martin was elected prime minister for the second time.
47th President of the United States	Donald Trump
President of Venezuela (46th President)	Nicolas Maduro was sworn in for a third six-year term.
US House Speaker	Mike Johnson has been re-Elected as US House Speaker.
Director General (DG) of the Bureau of Civil Aviation Security (BCAS)	Amrit Mohan Prasad, the Director General (DG) of Sashastra Seema Bal (SSB) has been given this additional charge.
India's New Ambassador to Israel	Jitender Pal Singhan Indian Foreign Service (IFS) officer.
Chairman of Bharti AXA Life Insurance	Akhil Gupta, Vice Chairman of Bharti Enterprises, has been appointed as the Chairman of Bharti AXA Life Insurance.
BSF ADG	Senior IPS officer Mahesh Kumar Aggarwal has been appointed ADG of BSF for four years, effective January 19, 2025.
Chief Justice of Bombay High Court	Justice Alok Aradhe appointed Chief Justice of Bombay High Court.
Chief Justice of Delhi High Court	Justice Devendra Kumar Upadhyaya as Chief Justice of Delhi High Court.
Secretary General of Indian Ocean Rim Association	Sanjiv Ranjan appointed Secretary General of Indian Ocean Rim Association (IORA).
CRPF Director General	Gyanendra Pratap Singh, 1991-batch IPS, appointed DG of CRPF.
New Ombudsman of BCCI	Justice Arun Mishra, former Supreme Court judge, appointed Ombudsman and Ethics Officer of BCCI.
Secretary of the Department of Higher Education	Vineet Joshi appointed Secretary, Department of Higher Education, Ministry of Education.
Newest judge of the Supreme Court of India	Justice Krishnan Vinod Chandran sworn in as Supreme Court judge on January 16, 2025; CJI Sanjiv Khanna administered the oath.

Secretary, Department of Revenue.	Tuhin Kanta Pandey
Secretary, DIPAM; additional charge as Secretary, DPE and Ministry of Culture.	Arunish Chawla
AFI President	Asian Games gold medalist and Padma Shri Bahadur Singh Sagoo elected president of Athletics Federation of India (AFI).
ISRO Chief and Space Secretary	Dr. V. Narayanan appointed Secretary, Department of Space and Chairman, ISRO, succeeding S. Somanath.
Director-General (DG) of the Directorate General of Civil Aviation (DGCA)	Faiz Ahmed Kidwai, 1996-batch IAS (Madhya Pradesh cadre), appointed DG of Directorate General of Civil Aviation (DGCA).

## IMPORTANT DAYS

Date	Important Day/News
1 January	Global Family Day
3 January	DRDO Foundation Day
4 January	World Braille Day
5 January	National Birds Day
6 January	World Day of War Orphans
6 January	Guru Gobind Singh Jayanti
8 January	Earth's Rotation Day
9 January	NRI (Non-Resident Indian) Day or Pravasi Bharatiya Divas
10 January	World Hindi Day
12 January	National Youth Day
13 January	Lohri Festival
14 January	Makar Sankranti
15 January	Indian Army Day
21 January	Tripura, Manipur and Meghalaya Foundation Day
23 January	Netaji Subhas Chandra Bose Jayanti
24 January	National Girl Child Day
24 January	International Day of Education
25 January	National Voters Day
25 January	National Tourism Day
26 January	Republic Day
26 January	International Day of Clean Energy 2025
26 January	International Customs Day
27 January	National Geographic Day
27 January	International Day of Commemoration in Memory of the Victims of the Holocaust 2025
28 January	Birth Anniversary of Lala Lajpat Rai
28 January	K.M. Cariappa Jayanti
29 January	Indian Newspaper Day
30 January	Martyrs Day or Shaheed Diwas
30 January	World Leprosy Day
31 January	International Zebra Day

## IMPORTANT PERSONALITIES IN THE NEWS

Personality	Details
Sister Inah Lucas	World's Oldest Living Person
Justin Trudeau	Canadian Prime Minister Justin Trudeau announced his resignation.



<b>Tomiko Itooka</b>	World's Oldest Person, Tomiko Itooka, Dies at 116 Years
<b>Shigemi Fukahori</b>	Shigemi Fukahori, Nagasaki Atomic Bomb survivor dies at 93
<b>P. Jayachandran</b>	Playback singer. Languages Sung in Malayalam, Tamil, Telugu, Kannada, Hindi
<b>Libia Lobo Sardesai</b>	Libia Lobo Sardesai was a key figure in Goa's freedom struggle, co-operating the underground radio <i>Voice of Freedom</i> (1955-1961) with her husband and Nicolau Menezes. She announced Goa's liberation on December 19, 1961, using an Indian Air Force plane. Her efforts boosted Goan morale during the movement. After liberation, she became the first Director of Tourism for Goa, Daman and Diu.
<b>M. S. Subbulakshmi</b>	M. S. Subbulakshmi, a renowned Carnatic singer, was the first musician awarded the <b>Bharat Ratna</b> . In 1974, she became the first Indian to win the <b>Ramon Magsaysay Award</b> . She also made history as the first Indian to perform at the <b>United Nations</b> in 1966 on <b>UN Day</b> . In 2005, the UN issued stamps to celebrate her birth centenary. She popularized classical and devotional works like <b>Venkatesa Suprabhatam</b> and <b>Bhajagovindam</b> .
<b>Potti Sriramulu</b>	Potti Sriramulu, honored as ' <b>Amarajeevi</b> ', played a key role in the creation of <b>Andhra Pradesh</b> . Inspired by <b>Mahatma Gandhi</b> , he participated in major movements like <b>Non-Cooperation</b> , <b>Salt Satyagraha</b> and <b>Quit India</b> . In 1952, he began a hunger strike for Andhra's formation, dying after 58 days. His sacrifice led to the creation of Andhra Pradesh in 1956.
<b>Khwaja Moinuddin Chishti</b>	Ajmer Sharif, the shrine of <b>Khwaja Moinuddin Chishti</b> , built by <b>Humayun</b> in 1532, is an iconic example of <b>Indo-Islamic architecture</b> . It has hosted rulers like <b>Akbar</b> and <b>Aurangzeb</b> . The <b>Urs Sharif</b> marks his death anniversary. Born in <b>Sijistan (Iran)</b> in 1141-42 CE, Moinuddin spread the <b>Chishti order</b> in India, emphasizing devotion and renouncing materialism. Other key Sufi orders in India include <b>Suhrawardi</b> , <b>Naqshbandi</b> and <b>Qadri</b> . Sufism focuses on spirituality, asceticism and devotion to God.
<b>59th death anniversary of Shri Lal Bahadur Shastri</b>	A key freedom fighter, he led during crises like the <b>1962 Indo-China war</b> and <b>1965 Indo-Pak war</b> with his iconic slogan " <b>Jai Jawan Jai Kisan</b> ." Shastri resigned twice as <b>Railways Minister</b> for train accidents, showing moral accountability. He died mysteriously on <b>11th January 1966</b> after signing the <b>Tashkent Agreement</b> and was posthumously awarded the <b>Bharat Ratna</b> .
<b>162nd Birth Anniversary of Swami Vivekananda</b>	Vivekananda was a disciple of Ramakrishna Paramhansa and introduced <b>Vedanta</b> and <b>Yoga</b> to the world. His teachings emphasized <b>self-realization</b> , <b>selfless service</b> and <b>character-building education</b> . He founded the <b>Ramakrishna Mission</b> (1897) and represented <b>Hinduism</b> at the <b>Chicago Parliament of Religions</b> (1893). His vision of <b>nationalism</b> was rooted in <b>humanism</b> , <b>freedom</b> and <b>equality</b> . Vivekananda also founded <b>Belur Math</b> (1899), addressed the <b>London Hindu Association</b> (1896) and promoted <b>neo-Vedanta</b> , blending <b>spirituality</b> with <b>material progress</b> . He outlined <b>four paths to moksha</b> : <b>Raja-yoga</b> , <b>Karma-yoga</b> , <b>Jnana-yoga</b> and <b>Bhakti-yoga</b> .
<b>358th Birth Anniversary of Guru Gobind Singh Ji</b>	Guru Gobind Singh Ji (22nd Dec 1666, Patna Sahib) was the 10th Sikh Guru. He founded the <b>Khalsa</b> in 1699, introduced the <b>Five K's</b> — <b>Kangha</b> , <b>Kesh</b> , <b>Kara</b> , <b>Kirpan</b> , <b>Kachhera</b> —and established <b>Panj Pyare</b> . His sons <b>Zorwar</b> and <b>Fateh Singh</b> were martyred and <b>Ajit</b> and <b>Jujhar Singh</b> died in the <b>Battle of Chamkaur</b> (1705).
<b>193rd Birth Anniversary of Savitribai Phule</b>	Savitribai Phule (born 3rd Jan 1831, Naigaon, Maharashtra) was a pioneering feminist and social reformer. With her husband, <b>Jyotirao Phule</b> , she founded <b>India's first school for girls</b> in 1848. Phule established 17 schools, advocating for <b>women's education</b> and for <b>Dalit and lower-caste women</b> . She fought against <b>social injustices</b> like <b>Sati</b> , <b>child marriage</b> and the <b>caste system</b> , opening a well for <b>untouchables</b> and founding a center for pregnant rape victims. She also founded the <b>Mahila Seva Mandal</b> to raise awareness. A plague warrior, she passed away on 10th March 1897 due to the bubonic plague.

## AWARDS

AWARD	CONTEXT	DETAILS
<b>US Presidential Medal of Freedom</b>	Lionel Messi, captain of the Argentina men's football team has been honored with the award.	<ul style="list-style-type: none"> <li>The <b>US Presidential Medal of Freedom</b>, the highest civilian honor in the US, recognizes contributions to national interest, world peace, or cultural and humanitarian endeavors.</li> <li>Established in 1945 by President Truman for WWII contributions, it was expanded in 1963 by President Kennedy. The medal features a white star surrounded by 13 gold stars, symbolizing unity and is suspended on a blue ribbon.</li> </ul>
<b>Honorary Citizen Award by Singapore</b>	Singapore awarded the Honorary Citizen Award to Tarun Das -- former CII Director General, for his pivotal role in enhancing Singapore-India relations.	<ul style="list-style-type: none"> <li>His contributions include initiating economic collaborations, the India-Singapore Strategic Dialogue and fostering youth exchanges.</li> </ul>
<b>'Anuja'</b>	'Anuja' Nominated for Oscar	<ul style="list-style-type: none"> <li>Anuja, produced by Priyanka Chopra and Guneet Monga, is nominated for Best Live Action Short Film at the 97th Academy Awards. Directed by Adam J. Graves, it follows a young girl working in a Delhi garment factory.</li> </ul>
<b>Apple Man of India Honored with Padma Shri</b>	Shri Hariman Sharma, a farmer from Himachal Pradesh, has been awarded the Padma Shri.	<ul style="list-style-type: none"> <li>Shri Hariman Sharma, a pioneering farmer from Himachal Pradesh, has been awarded the Padma Shri for his contributions to Indian agriculture. He developed the HRMN-99 apple variety, revolutionizing apple farming in tropical regions.</li> </ul>
<b>Padma Awards 2025</b>	Padma Awards 2025 announced	<p>The <b>Padma Awards</b> are one of India's highest civilian honors, conferred annually on the occasion of <b>Republic Day</b>. They recognize distinguished contributions across various fields, including <b>art, social work, public affairs, science and engineering, trade and industry, medicine, literature and education, sports and civil service</b>. The awards are presented in three categories:</p> <ol style="list-style-type: none"> <li><b>Padma Vibhushan:</b> For exceptional and distinguished service.</li> <li><b>Padma Bhushan:</b> For distinguished service of high order.</li> <li><b>Padma Shri:</b> For distinguished service in any field.</li> </ol> <p>The <b>Padma Vibhushan</b> awardees for 2025 include prominent figures such as <b>Shri Duvvur Nageshwar Reddy</b> (Medicine), <b>Justice (Retd.) Shri Jagdish Singh Khehar</b> (Public Affairs) and <b>Shri M. T. Vasudevan Nair</b> (Literature).</p> <p><b>Padma Bhushan</b> recipients include <b>Shri A Surya Prakash</b> (Journalism), <b>Shri Kailash Nath Dikshit</b></p>

		<p>(Archaeology) and <b>Sadhvi Ritambhara</b> (Social Work).</p> <p>Among the <b>Padma Shri</b> awardees, <b>Shri Arijit Singh</b> (Art), <b>Smt. Arundhati Bhattacharya</b> (Trade and Industry) and <b>Shri Vinayak Lohani</b> (Social Work) are notable.</p> <p>These awards are conferred by the <b>President of India</b> at a ceremonial function at <b>Rashtrapati Bhawan</b> in <b>March/April</b> each year. For <b>2025</b>, 139 Padma Awards have been approved, with 23 women awardees and 13 posthumous recipients.</p>
<b>Subhash Chandra Bose Aapda Prabandhan Puraskar</b>	Indian National Centre for Ocean Information Services (INCOIS), Hyderabad, has been awarded with Subhash Chandra Bose Aapda Prabandhan Puraskar-2025.	The Subhash Chandra Bose Aapda Prabandhan Puraskar, awarded annually on January 23, recognizes excellence in disaster management with a cash prize and certificate. INCOIS, established in 1999, enhances India's disaster strategy through early ocean hazard warnings.
<b>Gates-Cambridge Impact Prize 2025</b>	Professor Urbasi Sinha, head of the Quantum Information and Computing lab at RRI, has been awarded the Gates-Cambridge Impact Prize 2025 by the Bill & Melinda Gates Foundation.	Her lab's pioneering work in quantum communication, computing and optics has significantly advanced India's quantum research capabilities. Professor Sinha also plays a pivotal role in India's 'National Quantum Mission,' aiming to position the country at the forefront of global quantum innovation.
<b>National Sports Awards 2025</b>	President Droupadi Murmu presented the National Sports Awards at Rashtrapati Bhavan, recognizing India's top athletes and coaches.	The Major Dhyani Chand Khel Ratna was awarded to champions like double Olympic-medalist Manu Bhaker, chess prodigy D. Gukesh and Paralympic gold-medalist Praveen Kumar. The Arjuna Awards honored athletes such as Jyothi Yarraji (Athletics), Nitu (Boxing) and Salima Tete (Hockey). The Lifetime Arjuna Award went to Murlikant Rajaram Petkar, India's first Paralympic gold-medalist in swimming. The Dronacharya Award was presented to coaches Deepali Deshpande (Shooting) and Armando Agnelo Colaco (Football). The Maulana Abul Kalam Azad Trophy was awarded to Chandigarh University, Lovely Professional University and Guru Nanak Dev University.
<b>RK Srikantan Trust Award</b>	Mridangist T.V. Gopalakrishnan has been honored with the RK Srikantan Trust Award.	The award was given recognizing his significant contributions to Carnatic music. The award, presented annually, is named after the legendary Carnatic vocalist R.K. Srikantan, known for his traditional approach to the art. Born in 1920 and awarded the Padma Bhushan in 2011, R.K. Srikantan passed away in 2014, leaving a lasting impact on the world of Carnatic music.
<b>Satyajit Ray Lifetime Achievement Award</b>	The West Bengal Film Journalists Association (WBFJA) held its annual awards ceremony. Aparna Sen received the Satyajit Ray Lifetime Achievement Award for her contributions to Indian cinema.	<p>The West Bengal Film Journalists Association (WBFJA) Annual Awards Ceremony:</p> <p><b>Top Winners:</b></p> <ul style="list-style-type: none"> <li>• <b>Best Film:</b> <i>Manik Babur Megh</i></li> <li>• <b>Best Actor (Male):</b> Chandan Sen for <i>Manik Babur Megh</i></li> <li>• <b>Best Actor (Female):</b> Rituparna Sengupta for <i>Ajogya</i></li> <li>• <b>Most Popular Film:</b> <i>Khadaan</i></li> </ul>

		<ul style="list-style-type: none"> <li>• <b>Most Popular Actor:</b> Dev for <i>Khadaan</i></li> <li><b>Best Director (Joint Award):</b> Srijit Mukherji for <i>Badami Haynar Kabale</i> and Debaloy Bhattacharya for <i>Padatik</i></li> <li><b>Special Recognition:</b> <i>Oti Uttam</i> by Srijit Mukherji for AI innovation recreating Uttam Kumar's voice</li> <li><b>Special Mentions:</b> <ul style="list-style-type: none"> <li>• <b>Most Promising Director:</b> Abhinandan Banerjee for <i>Manik Babur Megh</i></li> <li>• <b>Best Screenplay:</b> Anjan Dutt for <i>Chalchitra Ekhon</i></li> <li>• <b>Best Music Director:</b> Amit Chatterjee for <i>Badami Haynar Kabale</i></li> <li>• <b>Best Background Score:</b> Rathijit Bhattacharya for <i>Khadaan</i></li> </ul> </li> <li><b>Playback Singer Awards:</b> <ul style="list-style-type: none"> <li>• <b>Male:</b> Timir Biswas for <i>Tekka</i>, Rathijit Bhattacharya for <i>Khadaan</i></li> <li>• <b>Female:</b> Antara Mitra for <i>Khadaan</i></li> <li>• <b>Best Lyricist:</b> Kaushik Ganguly for <i>Ajogya</i></li> </ul> </li> </ul> <p>The ceremony also paid tribute to Raj Kapoor on his birth centenary, with a focus on the circus industry and the iconic song <i>Jeena Yahan Marna Yahan</i> from <i>Mera Naam Joker</i>.</p>
<p><b>Blue Flag Certification</b></p>	<p>Kerala's Kappad beach in Kozhikode and Chal beach in Kannur have received the prestigious Blue Flag certification from the Denmark-based Foundation for Environmental Education (FEE).</p>	<p>This recognition honors beaches that meet high standards of environmental protection, safety and sustainability. The Blue Flag status not only enhances Kerala's appeal as a sustainable tourism destination but also sets a global benchmark for eco-friendly tourism practices.</p>
<p><b>82nd Annual Golden Globe Awards (2025)</b></p>	<p>The 82nd Annual Golden Globe Awards, held at The Beverly Hilton in California, celebrated outstanding achievements in film and television.</p>	<p><b>Key Winners:</b></p> <ul style="list-style-type: none"> <li>• <b>Best Performance by an Actor in a Motion Picture – Drama:</b> Adrien Brody, <i>The Brutalist</i></li> <li>• <b>Best Performance by an Actress in a Motion Picture – Drama:</b> Fernanda Torres, <i>I'm Still Here</i></li> <li>• <b>Best Motion Picture – Drama:</b> <i>The Brutalist</i></li> <li>• <b>Best Performance by an Actress in a Supporting Role in Any Motion Picture:</b> Zoe Saldaña, <i>Emilia Pérez</i></li> <li>• <b>Best Performance by an Actor in a Supporting Role in Any Motion Picture:</b> Kieran Culkin, <i>A Real Pain</i></li> <li>• <b>Best Performance by an Actress in a Television Series – Musical or Comedy:</b> Jean Smart, <i>Hacks</i></li> <li>• <b>Best Performance by an Actor in a Television Series – Drama:</b> Hiroyuki Sanada, <i>Shōgun</i></li> <li>• <b>Best Director – Motion Picture:</b> Brady Corbet, <i>The Brutalist</i></li> <li>• <b>Best Motion Picture – Non-English Language:</b> <i>Emilia Pérez</i></li> <li>• <b>Best Television Series – Drama:</b> <i>Shōgun</i></li> <li>• <b>Best Television Series – Comedy or Musical:</b></li> </ul>

		<p><i>Hacks</i></p> <p><b>Other Notable Winners:</b></p> <ul style="list-style-type: none"> <li>• <b>Best Performance by an Actress in a Supporting Role in a Television Series:</b> Jessica Gunning, <i>Baby Reindeer</i></li> <li>• <b>Best Performance by an Actor in a Supporting Role in a Television Series:</b> Tadanobu Asano, <i>Shōgun</i></li> <li>• <b>Best Performance in Stand-Up Comedy on Television:</b> Ali Wong, <i>Single Lady</i></li> <li>• <b>Best Cinematic and Box Office Achievement:</b> <i>Wicked</i></li> <li>• <b>Best Original Score – Motion Picture:</b> Trent Reznor, Atticus Ross, <i>Challengers</i></li> </ul>
<b>Padmapani Lifetime Achievement Award</b>	Sai Paranjpye, a legendary director and writer in Indian cinema, will receive the <b>Padmapani Lifetime Achievement Award</b> at the <b>Ajanta-Ellora International Film Festival (AIFF) 2025</b> .	Known for her impactful films such as <i>Sparsh</i> , <i>Chashme Buddoor</i> , <i>Katha</i> and <i>Saaz</i> , Paranjpye is a key figure in India's parallel cinema movement. Her career, marked by contributions to <b>Marathi literature, children's films</b> and social realism.
<b>Gangadhar National Award</b>	Odia poet Prativa Satpathy will be honored with the prestigious <b>Gangadhar National Award for Poetry 2023</b> by <b>Sambalpur University</b> on its <b>58th foundation day</b> .	The <b>Gangadhar National Award</b> , established in 1989 and first presented in 1991, is named after the renowned poet <b>Gangadhar Meher</b> . It is awarded annually during the foundation day celebrations of <b>Sambalpur University</b> . The award includes a <b>citation</b> , a <b>shawl</b> and a <b>cash prize of ₹1,00,000</b> . This year, the award will be presented to <b>Prativa Satpathy</b> , a prominent Odia poet who gained recognition in the 1960s with her work ' <i>Sesha Janha</i> '. Her writings have been translated into several Indian and foreign languages.
<b>National Sports Awards for 2024</b>	<b>Ministry of Youth Affairs &amp; Sports</b> has announced the prestigious <b>National Sports Awards for 2024</b> .	<p><b>Among the top awards:</b></p> <p><b>Major Dhyan Chand Khel Ratna Award 2024</b> honors the most outstanding sports performances over the past four years, with recipients including <b>Shri Gukesh D</b> (Chess), <b>Shri Harmanpreet Singh</b> (Hockey), <b>Shri Praveen Kumar</b> (Para-Athletics) and <b>Ms. Manu Bhaker</b> (Shooting).</p> <p>The <b>Arjuna Awards for Outstanding Performance in Sports 2024</b> celebrate excellence, leadership, sportsmanship and discipline, with recipients across disciplines like <b>Athletics, Boxing, Para-Athletics</b> and <b>Hockey</b>. Notable winners include <b>Ms. Jyothi Yarraji</b> (Athletics), <b>Ms. Annu Rani</b> (Athletics) and <b>Ms. Nitu</b> (Boxing).</p> <p>The <b>Arjuna Awards (Lifetime)</b> honor retired sportspersons contributing to the promotion of sports, with recipients like <b>Shri Sucha Singh</b> (Athletics) and <b>Shri Murlikant Rajaram Petkar</b> (Para-Swimming).</p> <p>The <b>Dronacharya Award for Outstanding Coaches in Sports and Games 2024</b> recognizes coaches who have excelled in training athletes for international success. Notable recipients include</p>

	<p><b>Shri Subhash Rana (Para-Shooting) and Ms. Deepali Deshpande (Shooting).</b></p> <p>The <b>Rashtriya Khel Protsahan Puraskar</b> is awarded to entities promoting sports, with the <b>Physical Education Foundation of India</b> recognized this year.</p> <p>The <b>Maulana Abul Kalam Azad (MAKA) Trophy 2024</b> is awarded to the top-performing university in the <b>Khelo India University Games</b>, with <b>Chandigarh University</b> taking the top spot.</p> <p>The awards are selected through an online application process, with a committee chaired by Justice (Retd.) V. Ramasubramanian, comprising eminent sports figures, journalists and administrators.</p>
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## Gallantry Awards 2025

### Context

- On Republic Day 2025 eve, President Droupadi Murmu approved gallantry awards for 93 personnel from the Armed Forces and CAPFs.

### All about Gallantry Awards

- Gallantry Awards** are instituted by the Government of India to honor bravery and sacrifice by officers/personnel of the Armed Forces, lawfully constituted Forces and civilians. They are announced twice yearly—on **Republic Day** and **Independence Day**.

### Types of Gallantry Awards:

- Gallantry in the Face of Enemy:**
  - Param Vir Chakra (PVC)
  - Mahavir Chakra (MVC)
  - Vir Chakra
- Gallantry Other than in the Face of Enemy:**
  - Ashoka Chakra
  - Kirti Chakra
  - Shaurya Chakra



### Award History:

- The **Param Vir Chakra**, **Mahavir Chakra** and **Vir Chakra** were instituted on **26th January, 1950**.
- Ashoka Chakra**, **Kirti Chakra** and **Shaurya Chakra** were instituted on **4th January, 1952**, renamed in 1967.

### Award Precedence:

- Param Vir Chakra
- Ashoka Chakra
- Mahavir Chakra
- Kirti Chakra
- Vir Chakra
- Shaurya Chakra

### Award Descriptions:

- Param Vir Chakra:** Bronze, circular, with Indra's Vajra. Ribbon: Purple.
- Mahavir Chakra:** Silver, circular, with a gilded State Emblem. Ribbon: Half-white, half-orange.
- Vir Chakra:** Silver, circular, with a Chakra. Ribbon: Half-blue, half-orange.
- Ashoka Chakra:** Gold-gilded, with Ashoka's Chakra. Ribbon: Green with orange line.
- Kirti Chakra:** Silver, with Ashoka's Chakra. Ribbon: Green, divided by two orange lines.
- Shaurya Chakra:** Bronze, with Ashoka's Chakra. Ribbon: Green, divided by three vertical lines.

**Investiture Ceremony:**

Awards are conferred by the **President** at the **Defence Investiture Ceremony** or the **Republic Day Parade** for **Param Vir Chakra** and **Ashoka Chakra**.

**Eligibility:**

- **Param Vir Chakra:** For the most conspicuous bravery in the presence of the enemy.
- **Maha Vir Chakra:** For conspicuous gallantry in the face of the enemy.
- **Vir Chakra:** For acts of gallantry in the face of the enemy.
- **Ashoka Chakra:** For the most conspicuous bravery, otherwise than in the face of the enemy.
- **Kirti Chakra:** For conspicuous gallantry, otherwise than in the face of the enemy.
- **Shaurya Chakra:** For gallantry, otherwise than in the face of the enemy.

**Selection Process:**

Recommendations are sent twice a year to the **Ministry of Defence** and the **Ministry of Home Affairs** for Armed Forces and civilian awards, respectively. The **Central Honours & Awards Committee** reviews these recommendations and final approval is given by the **President**.

**BOOKS & AUTHORS [CURRENT]**

BOOK	AUTHOR
Soumitra Chatterjee and His World	Sanghamitra Chakraborty
How India Scaled Mt G20: The Inside Story of the G20 Presidency	Amitabh Kant
'The World After Gaza': A Guide to Challenging Times	Pankaj Mishra
Parliament: Powers, Functions & Privileges; A Comparative Constitutional Perspective	Dr. K.S. Chauhan
Jammu Kashmir & Ladakh Through the Ages: A Visual Narrative of Continuities and Linkages	Union Home Minister and Minister of Cooperation, Shri Amit Shah

**BOOKS & AUTHORS [STATIC GK]**

Book	Author
An Area of Darkness	V.S. Naipaul
The Ministry of Utmost Happiness	Arundhati Roy
The Immortal Life of Henrietta Lacks	Rebecca Skloot
The Great Indian Novel	Shashi Tharoor
The Man Who Knew Infinity	Robert Kanigel
Inglorious Empire: What the British Did to India	Shashi Tharoor
India's War: World War II and the Making of Modern India	Srinath Raghavan
City of Joy	Novel by Dominique Lapierre. Calcutta is nicknamed "the City of Joy" after this novel.
The Last Mughal	William Dalrymple
The Idea of India	Sunil Khilnani

**STATIC GK**

**United Nations Democracy Fund (UNDEF)**

Created in 2005 by Kofi A. Annan to support democratization and it

depends on voluntary contributions.

**President's Bodyguard (PBG)**

Raised in 1773 by Warren Hastings in Benares and is the

oldest and senior-most regiment of the Indian Army.

**Srijan Portal**

Aims to encourage FDI in the defense sector.

### **Akash Weapon System (AWS)**

An indigenously developed Short Range Surface to Air Missile (SRSAM) by DRDO, targeting helicopters, fighter aircraft and UAVs.

### **Tactical Nuclear Weapons (TNWs)**

Short-range weapons with land-based missiles under 500 km and air/sea-launched weapons under 600 km.

### **Umiam Lake**

In Meghalaya, also known as "Bara Pani," was created by damming the Umiam River for the state's first Hydel Power Project.

### **Congo Basin**

Spans across Cameroon, Central African Republic, Democratic Republic of the Congo, Republic of the Congo, Equatorial Guinea and Gabon, excluding Angola.

### **Siyom Bridge**

Located in Arunachal Pradesh, enhances strategic connectivity along the Sino-India border.

### **Mahila Samman Savings Certificate Scheme (MSSC)**

Exclusively for women and girls, with a maximum deposit of ₹2 Lakhs and can be opened by women of any age group.

### **Trade Secrets**

Intellectual property rights on confidential information that may be sold or licensed. Currently, India lacks a specific law for the protection of trade secrets.

### **Ajrak**

An ancient art and craft of block printing on cloth, practised in Ajrakhpur, Gujarat,

using natural hues inspired by the sky.

### **Ankia Naat**

A traditional one-act play of Assam, linked to the Sattriya dance form, depicting incidents from Lord Krishna's life.

### **High-altitude Balloons**

Used in meteorological research, astronomical observations and espionage operations.

### **Fields Medal**

Awarded every four years in mathematics, but only to mathematicians under 40 years of age.

### **Largest shareholder in the World Bank Group**

The United States is the largest shareholder in the World Bank Group.

### **Vande Mataram Movement**

Vande Mataram Movement of 1907 in Andhra Pradesh, led by Harisarvothama Rao and Pingali Lakshmi Narayana, ended with the annulment of Bengal's partition.

### **Direct Listing Scheme**

Allows Indian companies to list on foreign exchanges without intermediaries, aiming for better global valuations and access to international markets

### **Toll Operate Transfer (TOT) Model**

Allows private entities to collect tolls on national highway projects for a set period, after which the government regains ownership.

### **Subak System**

A traditional irrigation method from Bali, Indonesia,

distributes water through canals and dykes to rice terraces.

### **Hashing**

It scrambles data to ensure its integrity, while encryption scrambles data to secure it for transmission, which can later be decrypted using a key.

### **Sitabena and Jogimara Caves**

Ancient cave monuments nested in the north side of Ramgarh hills in Puta village, Chhattisgarh.

### **Horizontal Gene Transfer (HGT)**

Non-sexual movement of genetic material between organisms.

### **Fifth Mass Extinction**

Famously known for the dinosaurs' extinction caused by an asteroid impact.

### **El Niño Modoki**

Associated with warming in the central tropical Pacific and cooling in the eastern and western tropical Pacific.

### **GRAPES-3 experiment**

Focused on studying solar flares and their impact on Earth's climate and is located in Ooty, Tamil Nadu.

### **Andes Mountain Range**

Stretches across Venezuela, Colombia, Ecuador, Peru, Bolivia, Chile and Argentina.

### **Schengen Area**

A zone of 27 European countries with abolished internal borders and shared external border rules.

### **United Nations Convention against Corruption (UNCAC)**



Only legally binding international anti-corruption multilateral treaty.

### Environmental DNA (eDNA)

DNA released by organisms into the environment, found in excreted feces, mucous and gametes, but is not resistant to UVB radiation.

### Payments Infrastructure Development Fund (PIDF)

Covers a range of devices like QR codes, Aadhaar-enabled biometric devices, Soundbox devices and physical PoS terminals to enhance payment infrastructure.

### Ayak and Anyat

Varieties of millet grown in Arunachal Pradesh by the Adi community.

### Milling Copra

Milling copra is used to extract oil, while ball copra is consumed as a dry fruit.

### SIGHT Programme

A sub-component under India's National Green Hydrogen Mission, aimed at bolstering domestic electrolyser manufacturing and green hydrogen production.

### Pheromones

Chemicals released by insects and animals to trigger specific behaviors in others of the same species.

### Longest coastline among Indian states

Gujarat has the longest coastline among Indian states.

### Calcium-41

Calcium-41 has a shorter half-life than carbon-14, making the detection of calcium-41 rarer.

### Public Charging Stations (PCS)

A license is not required to set up Public Charging Stations (PCS) in India, as it is a de-licensed activity. Power Distribution Companies (DISCOMs) manage private charging stations at residences in India.

### Nodal agency for the promotion of EV charging infrastructure

The Bureau of Energy Efficiency (BEE) is the nodal agency for the promotion of EV charging infrastructure in India.

### 'Connected Lending'

Refers to loans provided by banks to their owners or related businesses on softer-than-market terms.

### 'Calibrated Tightening' Policy

The Reserve Bank of India's 'calibrated tightening' policy stance means the overall policy is tilted towards rate hikes, although not at every policy meeting.

### Hazardous Wastes in India

Mercury, cadmium and arsenic are included in the category of hazardous wastes in India.

### Bengal Barrier

A proposed green wall to be built along the western border of West Bengal to prevent pollutants from entering the state.

### Hussain Sagar Lake in Hyderabad

Built during the reign of Ibrahim Quli Qutub Shah and connects Secunderabad and Hyderabad.

### Spiral Galaxies

In spiral galaxies, the youngest stars are formed in the spiral arms, while elliptical galaxies contain less gas and dust than spiral galaxies.

### REDD+

REDD+ is a mechanism developed under UNFCCC to offer incentives for developing countries to invest in low-carbon sustainable development paths.

### First organized trade union in India

Madras Labour Union, founded in 1918.

### Realized Niche

The realized niche of a species is more restricted than its fundamental niche, shaped by biological interactions such as competition and predation.

## CURRENT ONE LINERS

### Pangsau Pass

Located on the Patkai hills along the India-Myanmar border.

### Doctrine of Merger

When a higher court reviews a decision from a lower court, the lower court's order merges with the higher court's order.

### Dhanauri Wetland

Located in Greater Noida, Gautam Buddha Nagar District, Uttar Pradesh, near Okhla Bird Sanctuary and Surajpur Wetland

### Rhodamine B

A synthetic dye known for its bright pink color. Banned in the food sector due to their carcinogenicity.

### Guillain-Barré Syndrome

A rare neurological disorder where the body's immune system attacks the nervous system

### Mount Ibu

A stratovolcano located on Halmahera Island, Indonesia.

### Eddington limit

Defines the maximum rate at which a black hole can feed on matter while balancing radiation pressure with gravitational pull.

### Asan Wetland

Located in the Dehradun district of Uttarakhand. A Ramsar site and an Important Bird Area.

### KaWaCHaM

An advanced disaster warning system in Kerala designed to enhance public safety and disaster preparedness.

### Crosspathy

Practice where medical practitioners trained in one system of medicine (like Ayurveda, Homeopathy, or Unani) prescribe treatments or

medicines from another system, primarily Allopathy (modern medicine).

### Stargate Project

A \$500 billion initiative announced by Donald Trump to establish the U.S. as a global leader in artificial intelligence (AI) by building massive data centers and AI campuses.

### Entity Locker

A secure, cloud-based solution designed to simplify the storage, sharing and verification of documents for a wide range of entities like large organizations, corporations, MSMEs, trusts, startups and societies.

### Lake Naivasha

Located in Southern Rift Valley, Kenya.

### Kokborok

Native language of the Borok people in Tripura.

### Electrokinetic mining (EKM)

An eco-friendly technique for extracting rare earth elements (REEs), offering over 95% recovery with reduced environmental impact.

### Bhargavastra

India's first indigenous micro-missile system developed to counter drone swarm threats.

### Makaravilakku festival

Celebrated at Sabarimala Ayyappa temple.

### Diego Garcia

A coral atoll in the central Indian Ocean, part of the British Indian Ocean Territory.

### Blue Flag Certification

A globally recognized eco-label, awarded for sustainable tourism at beaches, marinas and boats, launched in 1985 in France and extended globally in 2001.

### Neduntheevu

Largest island in the Palk Strait, located in northern Sri Lanka.

### Z Morh Tunnel

Located in Ganderbal district, central Kashmir, it ensures Sonamarg remains accessible to tourists year-round.

### Trajan Gun

155mm towed artillery gun system developed jointly by India and France.

### Philadelphi Corridor

A narrow strip of land between the **Gaza Strip** and **Egypt**, including the **Rafah crossing**, the main entry and exit point between Gaza and Egypt.

## WBCS PRELIMS MOCK TEST

TEST ID - 04

- Q1. Which of the following sentences is grammatically correct?**
- A) The dog wagged it's tail.  
B) The dog wagged its tail.  
C) The dog wagged its' tail.  
D) The dog wagged its's tail.
- Q2. Identify the sentence with correct subject-verb agreement:**
- A) The team is playing well.  
B) The team are playing well.  
C) The team am playing well.  
D) The team were playing well.
- Q3. Choose the correctly punctuated sentence:**
- A) She bought apples, oranges and bananas.  
B) She bought apples oranges, and bananas.  
C) She bought apples, oranges, and, bananas.  
D) She bought apples oranges and bananas.
- Q4. Which sentence has the correct use of the apostrophe?**
- A) The cats toys are missing.  
B) The cat's toys are missing.  
C) The cats' toys are missing.  
D) The cats toys' are missing.
- Q5. Which of the following sentences is in the passive voice?**
- A) John wrote a letter to Mary.  
B) A letter was written by John to Mary.  
C) John has written a letter to Mary.  
D) John will write a letter to Mary.
- Q6. Identify the sentence with the correct use of the comparative form:**
- A) She is more taller than her sister.  
B) She is taller more than her sister.  
C) She is taller than her sister.  
D) She is tall than her sister.
- Q7. Which of the following sentences is correctly punctuated?**
- A) We went to the park, and, then we had lunch.  
B) We went to the park, then, we had lunch.  
C) We went to the park; then we had lunch.  
D) We went to the park then, we had lunch.
- Q8. Select the option that will improve the segment in bold of the given sentence. In case no improvement is needed, select 'No improvement.'**
- Hardly had starts working on the computer when the electricity was gone.**
- A) had I start  
B) had I started  
C) had started  
D) No improvement
- Q9. Which of the following words means "to deceive with a false appearance or impression"?**
- A) Deleterious  
B) Prevaricate  
C) Mendacious  
D) Dissemble
- Q10. Which of the following words means "to speak or act in a deliberately vague way"?**
- A) Delineate  
B) Dissemble  
C) Expatiate  
D) Equivocate
- Q11. Select the option that will improve the segment in bold of the given sentence. In case no improvement is needed, select 'No improvement.'**
- Many fishermen have begun to weigh out options to go back to the fishing harbours in other states because of pandemics.**
- A) To weighing up options  
B) To weigh down options  
C) To weigh options  
D) No improvement
- Q12. Which of the following words means "to criticize or reprimand severely"?**
- A) Castigate  
B) Commiserate  
C) Eulogize  
D) Exonerate
- Q13. Select the option that will improve the segment in bold of the given sentence. In**

case no improvement is needed, select 'No improvement.'

Producers of entertainment content, especially stand-up comedians, are increasingly become the target of legal action.

- A) Are increasingly becoming
- B) Are increasingly became
- C) Have increasingly becoming
- D) No improvement

Q14. What does the idiom "spill the beans" mean?

- A) To clean up a mess
- B) To reveal a secret
- C) To cook dinner
- D) To refuse an offer

Q15. What does the idiom "beat around the bush" mean?

- A) To hunt for birds
- B) To speak vaguely or evasively
- C) To garden carefully
- D) To avoid a person

Q16. What does the idiom "barking up the wrong tree" mean?

- A) To complain unnecessarily
- B) To look for something in the wrong place
- C) To train a dog
- D) To plant trees

Q17. Which phrase means "to take control of a situation"?

- A) Hit the books
- B) Call the shots
- C) Kick the bucket
- D) Jump the gun

Q18. Which phrase means "to fail to take advantage of an opportunity"?

- A) Miss the boat
- B) Hit the nail on the head
- C) Under the weather
- D) Let the cat out of the bag

Q19. Which phrase means "to be very happy"?

- A) Over the moon
  - B) On thin ice
  - C) In hot water
  - D) Behind the eight ball
- Active and Passive Voice

Q20. Identify the passive voice sentence.

- A) The chef cooks dinner every night.
- B) Dinner is cooked by the chef every night.
- C) The chef will cook dinner tomorrow.
- D) The chef is cooking dinner now.

Q21. Change the following sentence to passive voice: "The team won the championship."

- A) The championship is won by the team.
- B) The championship was won by the team.
- C) The team has won the championship.
- D) The team is winning the championship.

Q22. Which sentence is in active voice?

- A) The book was read by Mary.
- B) The project will be completed by the students.
- C) The manager reviewed the report.
- D) The car was driven by John.

Q23. Convert the following sentence to indirect speech: "He said, 'I am going to the store.'"

- A) He said that I am going to the store.
- B) He said that he was going to the store.
- C) He said that he is going to the store.
- D) He said he is going to the store.

Q24. Identify the sentence in direct speech.

- A) She said that she would arrive by noon.
- B) He asked if she could help him.
- C) "I can't find my keys," she said.
- D) They wondered whether it would rain.

Q25. Convert the following sentence to direct speech: "She told me that she had finished her homework."

- A) She said, "I had finished my homework."
- B) She said, "I have finished my homework."
- C) She said, "She finished her homework."
- D) She said, "I finished her homework."

Q26. Which district is not part of the Barendrabhumi region in North Bengal?

- A) Malda
- B) West Dinajpur
- C) Darjeeling
- D) Jalpaiguri

**Q27. The capital of Matsya Mahajanapada called Viratnagar is located in which of the following regions?**

- A) Malwa
- B) Peshawar
- C) Jaipur
- D) Bundelkhand

**Q28. How many national parks are there in West Bengal?**

- A) 4
- B) 5
- C) 6
- D) 7

**Q29. Which of the following best describes the Renaissance?**

- A) a period of cultural revival and rebirth in Europe, characterized by renewed interest in classical learning and artistic expression.
- B) a time marked by religious austerity and a decline in intellectual pursuits.
- C) an era dominated by feudalism and strict social hierarchies.
- D) a period of political upheaval and constant warfare across Europe.

**Q30. Which ruler is credited with the establishment and expansion of the Vakataka Kingdom in ancient India?**

- A) Chandragupta Maurya
- B) Harsha
- C) Rudrasena I
- D) Ashoka

**Q31. The Saka ruler Nahapana is particularly associated with which ancient Indian city that served as his capital?**

- A) Pataliputra
- B) Ujjain
- C) Pratihthana
- D) Mathura

**Q32. What was the main reason for the decline of the Maurya Empire, which had been established by Chandragupta Maurya in ancient India?**

- A) Invasion by Central Asian nomadic tribes
- B) Economic collapse due to excessive taxation and administrative corruption
- C) Religious conflicts and sectarian violence
- D) Environmental degradation & agricultural decline

**Q33. Who is often considered the "father of the Renaissance"?**

- A) Leonardo da Vinci
- B) Galileo Galilei
- C) Michelangelo buonarroti
- D) Francesco Petrarch

**Q34. Who painted the famous artwork "Starry Night"?**

- A) Pablo Picasso
- B) Leonardo da Vinci
- C) Vincent van Gogh
- D) Claude Monet

**Q35. The first Sangam among many other Sangams was founded by which of the following?**

- A) Tolkappiyar
- B) Sage Agastya
- C) Kapilar
- D) None of the above

**Q36. Which ancient Tamil dynasty is known for its maritime trade and cultural exchanges with Rome, Southeast Asia, and China?**

- A) Chola dynasty
- B) Chera dynasty
- C) Pandya dynasty
- D) Pallava dynasty

**Q37. The Vakataka Kingdom was known for its patronage of which form of art flourished during their rule.**

- A) Sculpture
- B) Poetry
- C) Dance
- D) Architecture

**Q38. The Pala dynasty reached its zenith under the rule of which ruler?**

- A) Dharmapala
- B) Gopala
- C) Devapala
- D) Mahipala

**Q39. The Gaya Session of the Indian National Congress in 1922 witnessed the adoption of which significant resolution?**

- A) Poorna Swaraj Resolution
- B) Non-Cooperation Resolution
- C) Formation of Swaraj Party
- D) Swadeshi Resolution

**Q40. What is the primary tree species found in the high-altitude forests of Singalila National Park?**

- A) Oak
- B) Pine
- C) Rhododendron
- D) Sal

**Q41. Consider the following terms:**

- 1. Mandalams
- 2. Nadus
- 3. Sthalas
- 4. Gramas

**Which of the above was/were the administrative units in the Vijayanagar kingdom?**

- A) Only 1, 2 & 3
- B) Only 2, 3 & 4
- C) Only 1, 3 & 4
- D) 1, 2, 3 & 4

**Q42. Which Pala ruler is credited with extending the dynasty's empire to its greatest extent?**

- A) Dharmapala
- B) Gopala
- C) Devapala
- D) Mahipala

**Q43. The most significant factors leading to the fall of the Western Roman Empire in the 5th century CE were?**

- A) Economic stagnation and overreliance on slave labor
- B) Barbarian invasions, internal strife, and administrative corruption
- C) Natural disasters and epidemic diseases
- D) Religious conflicts and the rise of Christianity

**Q44. The leader of the Bhakti movement with a focus on Lord Rama was \_\_\_\_\_:**

- A) Jaydeva
- B) Ramananda
- C) Namdeva
- D) Vivekananda

**Q45. Which river forms deep gorges and divides the mountain ranges into two parts in the Northern Mountain Region?**

- A) Teesta
- B) Mahananda
- C) Torsa
- D) Kalindi

**Q46. Match the columns:**

- |                |                      |
|----------------|----------------------|
| A. Qutub Minar | 1. Mohamed Adil Shah |
|----------------|----------------------|

- |                   |              |
|-------------------|--------------|
| B. Gol Gumbaj     | 2. Iltutmish |
| C. Buland Darwaza | 3. Aurangzeb |
| D. Moti Masjid    | 4. Akbar     |
- A) 2 1 3 4
  - B) 2 4 3 1
  - C) 4 3 2 1
  - D) 2 1 4 3

**Q47. The Tana Bhagat Movement, a tribal movement in colonial India, originated among which indigenous community?**

- A) Oraons
- B) Gonds
- C) Munda
- D) Bhils

**Q48. The river Ganga divides the plain of West Bengal into which two parts?**

- A) Northern Plains and Southern Plains
- B) Eastern Plains and Western Plains
- C) Upper Plains and Lower Plains
- D) Central Plains and Coastal Plains

**Q49. The battle, fought in 1192 CE, marking the beginning of Muslim rule in the Indian subcontinent, leading to the establishment of the Delhi Sultanate was?**

- A) Battle of Chitrukoot
- B) Battle of Panipat
- C) Battle of Tarain
- D) Battle of Haldighati

**Q50. What is the approximate population of Kolkata according to the 2011 Census?**

- A) 4,496,694
- B) 5,280,544
- C) 6,580,544
- D) 7,280,544

**Q51. Baba Ram Chandra was an Indian trade unionist who organised the farmers into forming a united front to fight against the abuses of landlords in 1920s and 1930s. In which of the following areas he was active?**

- A) Allahabad
- B) Mysore
- C) Awadh
- D) Hyderabad

**Q52. The Birsa Munda-led Ulgulan Movement, also known as the "Great Tumult," primarily took place in which region of colonial India?**

- A) Chota Nagpur Plateau
- B) Western Ghats

- C) Nilgiri Hills  
D) Aravalli Range

**Q53. Which peasant leader, also known as "Kisan Singh," spearheaded the Kisan Sabha movement in the United Provinces (now Uttar Pradesh) during the 1920s and 1930s?**

- A) Swami Sahajanand Saraswati  
B) Baba Ramchandra  
C) Baba Gurmukh Singh  
D) Swami Shardanand

**Q54. The quote "The battle of Plassey may be truly said to have decided the fate of the French in India" is attributed to whom?**

- A) J. N. Sirkar  
B) Bipan Chandra  
C) R. C. Majumdar  
D) R. C. Dutt

**Q55. Hooghly was used as a base for piracy in the Bay of Bengal by which of the following rulers?**

- A) Portuguese  
B) French  
C) Danish  
D) British

**Q56. Which of the following best describes the role and significance of the Code of Hammurabi in ancient Mesopotamia?**

- A) It established the first democratic government in history.  
B) It was a religious text outlining the creation myths of the Babylonians.  
C) It was a comprehensive legal code that regulated society and reflected societal values.  
D) It served as a collection of epic poems glorifying the deeds of ancient kings.

**Q57. Arrange the following viceroys in a chronological way:**

1. Lord Canning  
2. Lord Mayo  
3. Lord Elgin  
4. Lord Lytton

**Choose the correct option from the codes given below:**

- A) 1, 2, 3, 4  
B) 1, 3, 2, 4  
C) 1, 2, 4, 3  
D) 1, 4, 3, 2

**Q58. The Deccan riots, one of the important moments in history, affected which of the following places of Maharashtra?**

1. Poona  
2. Ahmednagar  
3. Sholapur  
4. Satara

**Choose the correct option from the codes given below:**

- A) 1 and 2 only  
B) 1, 2 and 3 only  
C) 2, 3, and 4 only  
D) All four

**Q59. Which of the following replaced Sir Charles Napier as the British resident of Sindh?**

- A) Alexander Burnier  
B) James Outram  
C) Sir John Karne  
D) Sir Eyre Coote

**Q60. Which of the following statements about Durgabai Deshmukh are correct?**

- A) She was the war dictator in the city of Madras  
B) She trained 600 volunteers to work for the Kakinada Session of INC  
C) She became the first lawyer who appeared in a Murder Case  
D) All of the above

**Q61. Which event in modern Indian history is known as 'Operation Blue Star,' a military operation conducted in 1984 to remove militants holed up inside the Golden Temple complex in Amritsar?**

- A) Babri Masjid demolition  
B) Godhra train burning  
C) Khalistan movement  
D) Sikh riots

**Q62. The India Independence Bill was first presented in the House of Commons in London on \_\_\_\_:**

- A) July 4, 1947  
B) July 14, 1947  
C) August 1, 1947  
D) August 10, 1947

**Q63. Which ancient Indian text, composed in Sanskrit, is a collection of hymns and poems dedicated to various deities and is considered one of the oldest religious scriptures in the world?**

- A) Mahabharata

- B) Ramayana
- C) Rigveda
- D) Upanishads

**Q64. Which Anglo-Maratha War marked the decisive defeat of the Maratha Confederacy and was a result of the signing of the Treaty of Bassein?**

- A) First Anglo-Maratha War (1775-1782)
- B) Second Anglo-Maratha War (1803-1805)
- C) Third Anglo-Maratha War (1817-1818)
- D) Fourth Anglo-Maratha War (1819-1826)

**Q65. What is the term for the process by which an ecosystem gradually changes over time?**

- A) Evolution
- B) Succession
- C) Mutation
- D) Adaptation

**Q66. The Battle of Assaye, a significant engagement between the British East India Company and the Marathas, took place during which Anglo-Maratha War?**

- A) First Anglo-Maratha War
- B) Second Anglo-Maratha War
- C) Third Anglo-Maratha War
- D) Fourth Anglo-Maratha War

**Q67. Who was chosen against Subhash Chandra Bose, during re-election as President of INC at Tripuri Session in 1939?**

- A) PattabhiSitaramaiyya
- B) JB Kriplani
- C) Rajendra Prasad
- D) Abdul Kalam Azad

**Q68. The Battle of Ferozeshah, one of the major battles of the Anglo-Sikh Wars, occurred during which Anglo-Sikh conflict?**

- A) First Anglo-Sikh War (1845-1846)
- B) Second Anglo-Sikh War (1848-1849)
- C) Third Anglo-Sikh War (1849)
- D) Fourth Anglo-Sikh War (1852)

**Q69. Consider the following statements about the Rani Jhansi Regiment:**

- 1) It was a women-only regiment of the Indian National Army (INA)
- 2) Captain Lakshmi Swaminathan also known as Captain Lakshmi Sahgal, was the leader of this unit.

**Which of the above statements is/are correct?**

- A) 1 only
- B) 2 Only
- C) Both
- D) None

**Q70. Which treaty was signed after the third Anglo-Mysore War?**

- A) Treaty of Mangalore
- B) Treaty of Seringapatam
- C) Treaty of Surji- Anjangaon
- D) None of the above

**Q71. Which country recently announced plans to build the world's first energy island in the North Sea?**

- A) Denmark
- B) Netherlands
- C) Norway
- D) Germany

**Q72. Who are the recipients of the Jnanpith Award for the year 2023?**

- A) Gulzar and Rambhadracharya
- B) Pratibha Rai and Madhav Kaushik
- C) Damodar Mauzo and Suranjan Das
- D) Purushottam Bilmale and Praful Shiledar

**Q73. The Treaty of Lahore, which ended the Second Anglo-Sikh War, resulted in the cession of which territory to the British East India Company?**

- A) Punjab
- B) Sindh
- C) Kashmir
- D) Baluchistan

**Q74. How many countries can Indian passport holders access visa-free according to the Henley Passport Index 2024?**

- A) 62
- B) 85
- C) 96
- D) 111

**Q75. According to the Henley Passport Index 2024, which country has visa-free access to the most countries?**

- A) India
- B) Maldives
- C) China
- D) United States

**Q76. Who hosted the British Academy of Film and Television Arts (BAFTA) Awards 2024?**



- A) Gulzar
- B) Rambhadracharya
- C) David Tennant
- D) Pratibha Rai

**Q77. Which of the following awards has Gulzar NOT won?**

- A) Sahitya Akademi Award for Urdu
- B) Padma Bhushan
- C) Dadasaheb Phalke Award
- D) Nobel Prize in Literature

**Q78. What unique genre of poetry did Gulzar create?**

- A) Sonnet
- B) Haiku
- C) Triveni
- D) Ghazal

**Q79. Where is Tulsi Peeth located?**

- A) Uttar Pradesh
- B) Rajasthan
- C) Madhya Pradesh
- D) Bihar

**Q80. How many languages is Jagadguru Rambhadracharya fluent in?**

- A) 12
- B) 18
- C) 22
- D) 26

**Q81. Who headed the committee that selected the Jnanpith Award recipients for 2023?**

- A) Gulzar
- B) Pratibha Rai
- C) Madhav Kaushik
- D) Damodar Mauzo

**Q82. Which organization recently unveiled the 12th edition of its International Intellectual Property (IP) Index?**

- A) United Nations
- B) World Economic Forum
- C) US Chamber of Commerce
- D) World Intellectual Property Organization

**Q83. What is India's position in the Global Intellectual Property Index 2024?**

- A) 38th
- B) 42nd
- C) 55th
- D) 95th

**Q84. Which country retained its position at the top of the Global Intellectual Property Index?**

- A) United States
- B) United Kingdom
- C) France
- D) Germany

**Q85. What is the overall score of India in the Global Intellectual Property Index 2024?**

- A) 95.48%
- B) 94.12%
- C) 38.64%
- D) 63%

**Q86. Who concluded a two-day visit to India as the chief guest in the 75th Republic Day celebrations?**

- A) German Chancellor Angela Merkel
- B) French President Emmanuel Macron
- C) British Prime Minister Boris Johnson
- D) US President Joe Biden

**Q87. Which country's president claimed victory for a fourth term in a disputed electoral process?**

- A) Bhutan
- B) Comoros
- C) Qatar
- D) Malaysia

**Q88. Who has commenced his second term as the prime minister of Bhutan?**

- A) Tshering Tobgay
- B) Narendra Modi
- C) Sheikh Hasina
- D) Imran Khan

**Q89. Which two companies have finalized a 15-year LNG Sale and Purchase Agreement (SPA) to provide LNG to Bangladesh?**

- A) QatarEnergy and Shell
- B) Excelerate Energy and BP
- C) Qatar Energy and Excelerate Energy
- D) ExxonMobil and Chevron

**Q90. The Treaty of Yandabo, which concluded the First Anglo-Burmese War, resulted in the cession of which territory to the British Empire?**

- A) Assam
- B) Manipur
- C) Arakan
- D) Tenasserim

- Q91. Where was the 3rd edition of the Northeast Games 2024 recently started?**  
A) Nagaland  
B) Assam  
C) Arunachal Pradesh  
D) Tripura
- Q92. Which country became the first in the world to ban the use of fossil fuels for electricity generation?**  
A) Sweden  
B) Iceland  
C) Denmark  
D) Norway
- Q93. 'Order of the Druk Gyalpo' Award, recently seen in the news, is the highest civilian honour award of which country?**  
A) Bhutan  
B) Nepal  
C) Myanmar  
D) Bangladesh
- Q94. What is the primary function of the Higgs Boson?**  
A) Transmitting gravitational force  
B) Conferring mass to other fundamental particles  
C) Carrying electric charge  
D) Mediating strong nuclear force
- Q95. What is the spin of a meson?**  
A) 0  
B)  $1/2$   
C) 1  
D) 2
- Q96. What is the hybridization of carbon in methane (CH<sub>4</sub>)?**  
A) sp  
B) sp<sup>2</sup>  
C) sp<sup>3</sup>  
D) sp<sup>3</sup>d
- Q97. How many pi bonds are there in a molecule with sp<sup>2</sup> hybridization?**  
A) 0  
B) 1  
C) 2  
D) 3
- Q98. Which functional group is present in aldehydes but not in ketones?**  
A) Carbonyl  
B) Hydroxyl  
C) Carboxyl  
D) Ester
- Q99. Which of the following is an example of a meson?**  
A) Proton  
B) Neutron  
C) Pion  
D) Electron
- Q100. The term Cyberknife is most closely associated with which among the following?**  
A) Magnetic Resonance  
B) Cancer Surgery  
C) Software Security  
D) Remote sensing
- Q101. Choose the correct statement about weight:**  
A) It is a scalar quantity  
B) Its value is independent of g  
C) It is determined by a spring balance  
D) None of the above
- Q102. Which type of friction occurs between surfaces in motion?**  
A) Static friction  
B) Kinetic friction  
C) Rolling friction  
D) Fluid friction
- Q103. Which of the following features are considered for a compound to be aromatic?**  
A) Planarity  
B) Complete delocalization of the  $\pi$  electrons in the ring  
C) Presence of  $(4n + 2)$   $\pi$  electrons in the ring where n is an integer  
D) All of the above
- Q104. Which of the following is a characteristic feature of aromatic compounds?**  
A) Presence of double bonds  
B) Planar structure and delocalized pi electrons  
C) High reactivity towards addition reactions  
D) Absence of resonance stabilization
- Q105. Who was the first female Prime Minister of the United Kingdom?**  
A) Margaret Thatcher  
B) Theresa May

- C) Angela Merkel  
D) Indira Gandhi
- Q106. Which of the following is a major greenhouse gas emitted through agricultural activities?**  
A) Methane  
B) Nitrous oxide  
C) Carbon monoxide  
D) Sulfur dioxide
- Q107. What are the dimensions of force?**  
A)  $[M][L][T]$   
B)  $[M][L][T^{-2}]$   
C)  $[M][L^{-1}][T^{-2}]$   
D)  $[M][L^{-2}][T^{-2}]$
- Q108. Which of the following is true in incomplete dominance?**  
A) Phenotype of both alleles is expressed  
B) Phenotype of only one allele is expressed  
C) The phenotype of neither of the alleles are expressed  
D) The phenotype of both alleles is partially expressed
- Q109. Which factor does NOT affect the coefficient of friction between two surfaces?**  
A) Nature of the surfaces  
B) Surface area in contact  
C) Normal force pressing the surfaces together  
D) Temperature of the surfaces
- Q110. The Phillips Curve illustrates the relationship between which two economic variables?**  
A) Inflation rate and unemployment rate  
B) Price and quantity demanded  
C) Interest rate and investment  
D) GDP and inflation rate
- Q111. For which type of infections are antibiotics used?**  
A) Only virus  
B) Only bacteria  
C) Both bacteria and virus  
D) Neither bacteria nor virus
- Q112. What are the dimensions of pressure?**  
A)  $[M][L^{-1}][T^{-2}]$   
B)  $[M][L^{-2}][T^{-2}]$   
C)  $[M][L^{-1}][T^{-2}]$   
D)  $[M][L^{-2}][T^{-1}]$
- Q113. Which among the following minerals is also known as Horn Silver?**  
A) Silver Iodide  
B) Silver Chloride  
C) Zinc Phosphate  
D) Silver Sulphide
- Q114. Which of the following phenomena is the basis of an electric generator?**  
A) Electromagnetic Induction  
B) Ferroelectric effect  
C) Telluric currents  
D) Electroluminescence
- Q115. Which of these are called Universal logic gates?**  
A) NAND  
B) NOR  
C) NOT  
D) Both a and b
- Q116. As per Faraday's Laws of Electrolysis, the amount of chemical reaction which occurs at any electrode during electrolysis is proportional to which of the following?**  
A) The concentration of electrolyte  
B) Length of the electrode  
C) Quantity of electricity passed through the electrolyte  
D) All of the above
- Q117. Which process involves the breakdown of glucose to release energy in the form of ATP?**  
A) Photosynthesis  
B) Glycolysis  
C) Respiration  
D) Fermentation
- Q118. In which cellular organelle does aerobic respiration occur?**  
A) Nucleus  
B) Ribosome  
C) Mitochondria  
D) Endoplasmic reticulum
- Q119. A heart with a double circulatory system is present in?**  
A) Birds only  
B) Mammals only  
C) Reptilia only  
D) Both (A) and (B)

- Q120. Prime Minister's Science, Technology & Innovation Advisory Council (PM-STIAC) was constituted in which year?**  
A) 2018  
B) 2019  
C) 2020  
D) 2021
- Q121. How many numbers of bones are present in the middle ear?**  
A) Two  
B) Three  
C) Six  
D) Nine
- Q122. Which of the following countries is not larger than India in terms of geographical area?**  
A) Australia  
B) Brazil  
C) Canada  
D) Indonesia
- Q123. Which of the following states does not share a boundary with Myanmar?**  
A) Assam  
B) Arunachal Pradesh  
C) Nagaland  
D) Manipur
- Q124. The famous Vidyasagar Setu is located in which among the following cities?**  
A) Patna  
B) Kolkata  
C) Lucknow  
D) Chennai
- Q125. Osmosis is the movement of:**  
A) Solvent molecules from a region of lower concentration to a region of higher concentration  
B) Solvent molecules from a region of higher concentration to a region of lower concentration  
C) Solute molecules from a region of lower concentration to a region of higher concentration  
D) Solute molecules from a region of higher concentration to a region of lower concentration
- Q126. What happens to the concentration of solutes when a cell is placed in a hypertonic solution?**  
A) It decreases  
B) It increases  
C) It remains the same  
D) It varies depending on the type of solute
- Q127. Which type of bond involves the sharing of electrons between atoms?**  
A) Ionic bond  
B) Covalent bond  
C) Metallic bond  
D) Hydrogen bond
- Q128. Which of the following molecules is held together by a covalent bond?**  
A) NaCl  
B) H<sub>2</sub>O  
C) NaOH  
D) CaCO<sub>3</sub>
- Q129. Which of the following parts of the Himalayas is situated between Satluj and Kali rivers?**  
A) The Himadri Himalaya  
B) The Himachal Himalaya  
C) The Kumayun Himalaya  
D) The Central Himalaya
- Q130. Which among the following matches of Hill Resort with the state they are situated in are correct?**  
1. Darjeeling West Bengal  
2. Dalhousie Himachal Pradesh  
3. Mussoorie Uttarakhand  
4. Pahalgam Jammu and Kashmir  
**Choose the correct option from the codes given below:**  
A) 1 & 2  
B) 1, 2 & 3  
C) 1, 3 & 4  
D) 1, 2, 3 & 4
- Q131. Which logic gate produces an output only when all its inputs are high?**  
A) AND gate  
B) OR gate  
C) NOT gate  
D) XOR gate
- Q132. Which city is located at the highest altitude among the world's capital cities?**  
A) La Paz, Bolivia  
B) Kathmandu, Nepal  
C) Quito, Ecuador  
D) Lhasa, Tibet

- Q133. What is the output of an XOR gate if both inputs are high?**  
A) High  
B) Low  
C) Depends on the previous state  
D) Indeterminate
- Q134. "Right to vote" can be placed in which among the following categories?**  
A) Fundamental Right  
B) Constitutional Obligation  
C) Fundamental Duty  
D) Legal Right
- Q135. Which of the following is not a type of electromagnetic radiation?**  
A) X-rays  
B) Sound waves  
C) Gamma rays  
D) Radio waves
- Q136. Which is the largest container port in India?**  
A) Chennai Port  
B) Kolkata Port  
C) Mumbai Port  
D) Jawaharlal Nehru Port
- Q137. Which Indian state is known as the "Gateway of India" due to its strategic location for maritime trade?**  
A) Gujarat  
B) Maharashtra  
C) Tamil Nadu  
D) Kerala
- Q138. Which phenomenon is responsible for the cooling of coastal areas during the day and warming during the night?**  
A) Sea breeze  
B) Land breeze  
C) Monsoon  
D) El Niño
- Q139. Who won the Nobel Peace Prize in 2020 for their efforts to combat hunger, especially during the COVID-19 pandemic?**  
A) World Food Programme  
B) Médecins Sans Frontières  
C) Bill & Melinda Gates Foundation  
D) United Nations Children's Fund (UNICEF)
- Q140. How many methods are prescribed for amending the Indian Constitution?**  
A) 1  
B) 2  
C) 3  
D) 4
- Q141. Which body is responsible for the enforcement of Fundamental Rights in India?**  
A) Election Commission of India  
B) Supreme Court of India  
C) President of India  
D) Parliament of India
- Q142. Which of the following countries does not border the Mediterranean Sea?**  
A) Greece  
B) Turkey  
C) Algeria  
D) Romania
- Q143. As per the Government of India Act of 1935, which of the following was made the fulcrum of the constitution?**  
A) Secretary of State for India  
B) Governor-general  
C) Board of Control  
D) Court of Directors
- Q144. Which article of the Indian Constitution guarantees the Right to Equality?**  
A) Article 14-18  
B) Article 19-22  
C) Article 21-24  
D) Article 25-28
- Q145. Who has the power to dissolve the Lok Sabha before the completion of its normal term?**  
A) President of India  
B) Prime Minister of India  
C) Speaker of the Lok Sabha  
D) Chief Justice of India
- Q146. Progressive Taxation is most closely associated with the base on which the tax proposals are generally developed is \_\_\_\_\_?**  
A) Expediency Theory  
B) Cost of service approach  
C) Ability to pay approach  
D) Concentration approach

- Q147. Which of the following articles of the Indian Constitution provides for the establishment of a High Court in every State?**
- A) Article 214  
B) Article 215  
C) Article 216  
D) Article 217
- Q148. The funds that are kept aside by the banks as a fraction of the loans are called?**
- A) NPA Coverage Ratio  
B) Loan Default Ratio  
C) Provisioning Coverage Ratio  
D) Credit Exposure Ratio
- Q149. Which of the following is not a feature of the Parliamentary form of government in India?**
- A) Dual executive  
B) Collective responsibility of the executive to the legislature  
C) Fusion of powers between the executive and legislature  
D) Separation of powers between the executive and judiciary
- Q150. Which of the following clearly define Stagflation?**
- A) Constant rate of inflation  
B) Low inflation with high recession  
C) High inflation with low recession  
D) Stagnation and inflation
- Q151. Which among the following economic systems doesn't have profit-making as a motive?**
1. Socialist  
2. Market  
3. Mixed  
4. Traditional
- Choose the correct option from the choices given below:**
- A) 1 and 2  
B) 2 and 3  
C) 3 and 4  
D) 1 and 4
- Q152. What does the Consumer Price Index (CPI) calculate?**
- A) Services only  
B) Goods only  
C) Both goods and services  
D) None of the above
- Q153. Which ancient civilization built the famous city of Machu Picchu?**
- A) Aztecs  
B) Mayans  
C) Incas  
D) Egyptians
- Q154. What is the total income support provided annually under Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) Scheme?**
- A) Rs. 5000  
B) Rs. 6000  
C) Rs. 7500  
D) Rs. 8000
- Q155. What can improve the competitive position of a company?**
- A) Increasing the selling price  
B) Reducing the margin of profit  
C) Ignoring competitors  
D) Understanding and fulfilling customers' needs
- Q156. Which of the following committees is not mentioned in the Indian Constitution?**
- A) Public Accounts Committee (PAC)  
B) Estimates Committee  
C) Planning Commission  
D) Public Undertakings Committee
- Q157. Who publishes the Economic Survey in India?**
- A) Government of India  
B) Ministry of Finance  
C) NITI Aayog  
D) Prime Minister of India
- Q158. If the day after the 11th of March is Thursday, then what will be the last day of the month?**
- A) Thursday  
B) Wednesday  
C) Friday  
D) Tuesday
- Q159. The total of the ages of Amit and Suvarna on 1 January 2015 is 61 years. Amit is three years younger than Survana. What was the age of Survana on 1 January 2010?**
- A) 29 years  
B) 32 years  
C) 27 years  
D) 24 years

- Q160.** The ratio of the present ages of Asha and Lata is 5 : 6. If the difference between their ages is 6 years, then what will be Lata's age after 5 years?  
A) 40  
B) 45  
C) 41  
D) 35
- Q161.** If A denotes '+', B denotes '×', C denotes '-' and D denotes '÷', then what will come in place of '?' in the following equation? (13 B 9) D 3 A (14 D 7) B 6 C 21 A (32 B 2) = ?  
A) 96  
B) 100  
C) 112  
D) 94
- Q162.** In a row of kids all are facing North, K is 35th from the left end while R is 20th from the right end and 9th to the right of E. If K sits second to the left of E then, find out the total number of persons of the row?  
A) 65  
B) 67  
C) 68  
D) Can't be determined
- Q163.** If '@' means 'addition', '%' means 'multiplication', '\$' means 'division' and '#' means 'subtraction', then find the value of the following expression.  
29 @ 128 \$ 16 % 7 # 22  
A) 47  
B) 58  
C) 63  
D) 23
- Q164.** What is the smallest bone in the human body?  
A) Femur  
B) Stapes  
C) Tibia  
D) Radius
- Q165.** If the day before yesterday was Monday, then what day will it be the day after tomorrow?  
A) Friday  
B) Thursday  
C) Wednesday  
D) Tuesday
- Q166.** The average yearly rainfall for total area of West Bengal is around :  
A) 125 cm.  
B) 150 cm.  
C) 175 cm.  
D) 200 cm.
- Q167.** District having the lowest rainfall in West Bengal is :  
A) Purulia  
B) Bankura  
C) Birbhum  
D) None of these
- Q168.** During the winter season, air blows over West Bengal from:  
A) North  
B) North-east  
C) North-west  
D) South-west
- Q169.** Of the 4 official seasons of West Bengal, the Summer period is:  
A) February - April  
B) March-May  
C) April - June  
D) None of the above
- Q170.** 'Tin Bigha' area leased to Bangladesh for use is associated with:  
A) Nadia  
B) South Dinajpur  
C) Murshidabad  
D) Coochbehar
- Q171.** In West Bengal 'Watermelon' is mainly produced in:  
A) Burdwan  
B) Coochbehar  
C) South 24 Parganas  
D) Purulia
- Q172.** On which river the Maithon Barrage has been constructed?  
A) Barakar  
B) Konar  
C) Ajay  
D) None of these
- Q173.** Select the option that is related to the third letter-cluster in the same way as the second letter cluster is related to the first letter-cluster. CEGI : AGEK :: DFHJ : ?  
A) CHFI  
B) CGIK

- C) BHFL  
D) BDJK
- Q174.** 'Action' is related to 'Reaction' in the same way as 'Stimulus' is related to '\_\_\_\_\_'.  
A) Reception  
B) Vision  
C) Response  
D) Feedback
- Q175.** In 41 employees company, the L rank is 38th from the left end and the S rank is 17th from the right end. How many students are sitting in between L and S?  
A) 13  
B) 14  
C) Can't be determined  
D) 12
- Q176.** J is 16 ranks ahead of K in a class of 33. If K's rank is 7th from the last, what is J's rank from the top?  
A) 11th  
B) 10th  
C) 12th  
D) 18th
- Q177.** Select the word pair in which the two words are related in the same way as the two words in the following word pair.  
**Book: Thesaurus**  
A) Tree: Forest  
B) Reptile: Python  
C) Furniture: Wood  
D) Tennis: Ball
- Q178.** Select the set in which the numbers are related in the same way as the numbers of the following set. (3, 24, 4)  
A) (6, 35, 11)  
B) (2, 30, 8)  
C) (12, 84, 4)  
D) (4, 72, 9)
- Q179.** Three of the following four-letter clusters are alike in a certain way and one is different. Pick the odd one out.  
A) CFIL  
B) GHIJ  
C) MOQS  
D) PSUX
- Q180.** Three of the following four numbers are alike in a certain way and one is different.
- Pick the number that is different from the rest.  
A) 126  
B) 189  
C) 254  
D) 217
- Q181.** The Laffer Curve is used to illustrate the relationship between which two economic variables?  
A) Tax revenue and tax rate  
B) Price and quantity demanded  
C) Unemployment rate and inflation rate  
D) GDP and inflation rate
- Q182.** The 'Instrument of Surrender' which ended the Portuguese rule in India was signed on:  
A) 19th December 1961  
B) 15th August 1947  
C) 29th December 1951  
D) 26th January 1948
- Q183.** The Kandariya Mahadeva Temple, one of the prominent temples in the Khajuraho Group of Monuments, is dedicated to which deity?  
A) Lord Shiva  
B) Lord Vishnu  
C) Lord Brahma  
D) Lord Ganesha
- Q184.** In the Battle of Swally (1612) the British fought against the \_\_\_\_\_.  
A) Danish  
B) Portuguese  
C) French  
D) Dutch
- Q185.** The \_\_\_\_\_ commercial companies set up their base in India during the Mughal Empire at Masulipatnam in 1605:  
A) British  
B) French  
C) Portuguese  
D) Dutch
- Q186.** Which article of the Indian Constitution deals with the composition of the Parliament of India?  
A) Article 80  
B) Article 81  
C) Article 82  
D) Article 83



- Q187. Which architectural style is characteristic of the Khajuraho Group of Monuments in Madhya Pradesh, India?**  
A) Dravidian  
B) Nagara  
C) Vesara  
D) Chalukyan
- Q188. Where in India was the first French factory established?**  
A) Surat  
B) Pondicherry  
C) Chandannagore  
D) Masulipatnam
- Q189. In which year did the French traveller Francois Bernier arrive in India?**  
A) 1656  
B) 1678  
C) 1658  
D) 1662
- Q190. During which Congress session did the demand for 'Purna Swaraj' or complete independence for India was made?**  
A) Lahore Session (1929)  
B) Madras Session (1927)  
C) Karachi Session (1931)  
D) Bombay Session (1934)
- Q191. Which of the following pairs is associated with the taxation system of the Marathas?**  
A) Chauth and Sardeshmukhi  
B) Zat and Sawar  
C) Polaj and Parauti  
D) Iqta and Jagir
- Q192. Which session of the Indian National Congress marked the beginning of the Non-Cooperation Movement in 1920?**  
A) Nagpur Session  
B) Calcutta Session  
C) Lahore Session  
D) Lucknow Session
- Q193. Which article of the Indian Constitution provides for the establishment of Panchayats in rural areas?**  
A) Article 243  
B) Article 243A  
C) Article 243B  
D) Article 243C
- Q194. Which of the following Amendments is also known as the 'Mini Constitution' of India?**  
A) 7th Amendment  
B) 42nd Amendment  
C) 44th Amendment  
D) 74th Amendment
- Q195. Which of the following rights has been removed from fundamental rights and converted to a simple legal right?**  
A) Right to life and personal liberty  
B) Right to property  
C) Right to education  
D) Right to freedom of religion
- Q196. Who among the following were the members of the drafting committee of the Constitution?**  
A) Vallabhbhai Patel  
B) Jawaharlal Nehru  
C) Alladi Krishnaswami Aiyar  
D) Rajendra Prasad
- Q197. Which dynasty is credited with the construction of the Brihadeeswarar Temple, also known as the Big Temple, in Thanjavur, Tamil Nadu?**  
A) Chola Dynasty  
B) Pallava Dynasty  
C) Hoysala Dynasty  
D) Vijayanagara Dynasty
- Q198. Swami Vivekananda established the Ramakrishna Mission in the year \_\_\_\_\_.**  
A) 1897  
B) 1876  
C) 1899  
D) 1882
- Q199. Which economic curve represents the various combinations of two goods that a consumer is indifferent between?**  
A) Demand curve  
B) Production possibilities curve  
C) Supply curve  
D) Indifference curve
- Q200. Who established the Mohammedan Anglo-Oriental College at Aligarh?**  
A) Mohammad Ali Jinnah  
B) Syed Sadulla  
C) Syed Ahmad Khan  
D) Dadabhai Naoroji

ANSWERS

1. b	21. b	41. d	61. c	81. b	101. c	121. b	141. b	161. d	181. a
2. a	22. c	42. c	62. a	82. c	102. b	122. d	142. d	162. a	182. a
3. a	23. b	43. b	63. c	83. b	103. d	123. a	143. b	163. c	183. a
4. b	24. c	44. b	64. b	84. a	104. b	124. b	144. a	164. b	184. b
5. b	25. b	45. a	65. b	85. c	105. a	125. b	145. a	165. a	185. d
6. c	26. c	46. d	66. b	86. b	106. a	126. b	146. c	166. c	186. b
7. c	27. c	47. a	67. a	87. b	107. b	127. b	147. a	167. a	187. b
8. b	28. c	48. a	68. a	88. a	108. d	128. b	148. c	168. b	188. a
9. d	29. a	49. c	69. c	89. c	109. b	129. c	149. d	169. b	189. c
10. d	30. c	50. a	70. b	90. d	110. a	130. d	150. d	170. d	190. a
11. c	31. c	51. c	71. a	91. a	111. b	131. a	151. d	171. c	191. a
12. a	32. b	52. a	72. a	92. b	112. c	132. a	152. c	172. a	192. b
13. a	33. d	53. a	73. c	93. a	113. b	133. b	153. c	173. c	193. c
14. b	34. c	54. c	74. a	94. b	114. a	134. d	154. b	174. c	194. b
15. b	35. b	55. a	75. b	95. c	115. d	135. b	155. d	175. d	195. b
16. b	36. b	56. c	76. c	96. c	116. c	136. d	156. c	176. a	196. c
17. b	37. d	57. b	77. d	97. c	117. c	137. b	157. b	177. b	197. a
18. a	38. c	58. d	78. c	98. a	118. c	138. a	158. d	178. d	198. a
19. a	39. c	59. b	79. c	99. c	119. d	139. a	159. c	179. d	199. d
20. b	40. c	60. d	80. c	100. b	120. a	140. c	160. c	180. c	200. c