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WBCS Prelims Test ID 02



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WEST BENGAL SPECIAL

1. SCHEMES IN NEWS

Banglar Awas Yojana

Context

- Protests erupted in Bengal over allegations of exclusion of beneficiary names in Banglar Awas Yojana.

Details

- About:** A key housing scheme introduced in 2016.
- Aim:** To provide pucca (solid and stable) houses to the economically weaker sections of society.
- Eligibility:** Should be permanent residents of Bengal. And they should not have a pucca/stable home.
- Assistance:** Rs 1,20,000 is distributed to the citizens as cash aid in three instalments.

Joy Bangla Pension Scheme

Context

- The West Bengal State Government launched the Joy Bangla Pension Scheme 2024.

Details

- Initial launch:** 2020: **Aim:** Provide financial assistance to the financially unstable senior citizens of Bengal.
- Categories:** The **Taposali Bandhu** pension scheme (for Scheduled Castes) and **Jai Johar** scheme (for Scheduled Tribes) aim to provide financial security to poor and socially backward communities.
- Eligibility:** Must be a permanent resident of West Bengal. **Only** Scheduled Castes and Tribes are eligible. Must be **below the poverty line and aged 60+**. Must have a bank account and not be receiving another government pension.

Key Features:

- Financial support for elderly, disabled, and widows. **Rs. 600/month under Taposali Bandhu** and **Rs. 1,000/month under Jai Johar**. Direct bank transfers.
- Core Benefits:** No monthly contributions required. Nominee can inherit pension in case of the beneficiary's death.

Yogyashree Scheme

Context

- The West Bengal State Government launched the Yogyashree Scheme 2024.

Scheme Details

- Aim:** To provide **free education** for economically and socially backward classes.
- Focus:** Students aspiring for **Higher Education in Medicine and Engineering** (NEET, JEE MAIN, JEE ADVANCED).
- Benefits:** Free education after Class 10 for medical and engineering entrance exams.
- Eligibility Criteria:** Must be a permanent resident of **West Bengal**. Minimum qualification of **Class 10**. Open to SC, ST, OBC, minority, and general categories.

Taruner Swapno Scheme

Context

- An interstate gang is involved in the fraud of direct benefit transfer of Bengal's Taruner Swapno Scheme.

Details

- About:** Taruner Swapna Scheme was launched to strengthen students technically and brighten their future with technology. The first tablet scheme was announced in 2020, initially naming it Tablet Scheme 2021.
- Aim:** Bridge the **digital divide**. **Give financial assistance and enable** students to access online education.
- Feature:** An amount of ₹ 10000 is transferred to the bank account of students at higher secondary classes to buy smart phones and tablets.
- Beneficiaries:** Class 11 and 12 students of government/government-aided/sponsored schools and madrasahs.
- Eligibility Criteria:** Must be a **permanent resident** of West Bengal. Should be a **student in Class 11 or 12**. Family's annual income should not exceed **₹2 lakh**. Students with backlogs are **ineligible**.

- **Budget:** In 2024-25 the West Bengal government has allocated about Rs 900 crore for the scheme.

- Partnered with various insurance companies over time, with current clusters handled by National, Oriental, and United India Insurance.

Swasthya Sathi Scheme

Context

- Bengal mandates Swasthya Sathi-empanelled hospitals to display boards detailing services, entitlements and obligations addressing refusal complaints.

About Swasthya Sathi Scheme

- **Launch:** December 2016.
- **Coverage:** Up to ₹5 lakh per family annually for secondary and tertiary care.
- **Mode:** Paperless, cashless, smart card-based.

Key Features:

- **Inclusivity:** No cap on family size; includes parents of both spouses & dependent differently abled members.
- **Pre-existing Diseases:** Fully covered.
- **Premium:** Entirely borne by the State Government; no beneficiary contribution.

Service Highlights:

- **Pre-authorization:** Online with a 24-hour turnaround.
- **Claim Reimbursement:** Processed within 30 days; delayed payments incur interest.
- **Insurance Partners:**

West Bengal Cha Sundari Extension Scheme

Context

- During the 2024-2025 budget presentation, Bengal revealed the “Cha Sundari Extension Scheme”.

Details

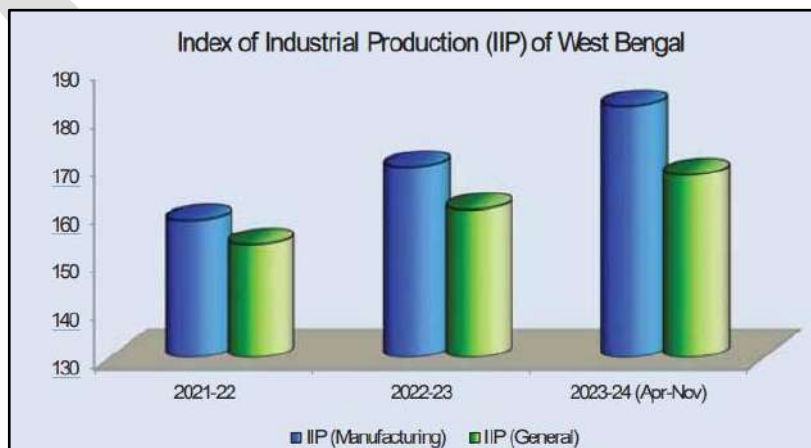
- **Initial Launch:** 2020.
- **Aim:** Provide free houses along with land rights to tea workers in north Bengal.
- **Progress:** 23,000 workers received residential plots (up to 5 decimals). 2,500 acres of land distributed.

Cha Sundari Extension Scheme Highlights

- **Announced:** 2024-25 Budget.
- **Objective:** Offer financial aid of ₹1,20,000 for house construction.
- **Nodal Agency:** West Bengal Housing Department.
- **Eligibility Criteria:** Permanent resident of Bengal; Permanent worker in tea garden; Possess land ownership or Govt.-awarded patta.

2. WEST BENGAL ECONOMY (GK)

- West Bengal's **Gross State Domestic Product (GSDP)** at constant prices grew by 7.65% in 2023-24 (1st advance estimate), compared to India's growth rate of 7.32%.
- The size of the state's economy (GSDP at current prices) stands at **Rs. 17,00,939 crore** in 2023-24 (base year 2011-12).
- **State's Own Tax Revenue** increased from Rs. 21,128.74 crore in 2010-11 to Rs. 83,608.56 crore in 2022-23.
- **Capital Expenditure** grew from Rs. 2,633.48 crore in 2010-11 to Rs. 22,753.27 crore in 2022-23.
- Expenditure on **Social Services** rose from Rs. 6,845.61 crore in 2010-11 to Rs. 77,795.66 crore in 2022-23.
- **State Debt as % of GSDP** decreased from 40.65% in 2010-11 to 37.49% in 2022-23 due to fiscal consolidation measures.
- **Revenue Deficit as % of Total Revenue** reduced from 36.55% in 2010-11 to 13.96% in 2022-23.
- **Fiscal Deficit as % of GSDP** steadily decreased from 4.24% in 2010-11 to 3.26% in 2022-23.



3. WEST BENGAL – OTHER SECTORS (GK)

Health

- The number of **medical colleges** increased from 10 in 2011 to 35 in 2023, with **MBBS seats** increasing from 1,355 to 5,325.
- There are 117 **Fair Price Medicine Shops** and 158 **Fair Price Diagnostic Centres** in operation.

Infrastructure

- Under the **Jal Jeevan Mission**, 9,404 schemes were approved, providing 174.42 lakh **Functional Household Tap Connections**.
- The state is constructing **Karmatirthas** (marketing hubs) for artisans and SHG members in minority areas.

Industry & MSME

- The **Deocha Pachami** coal block, the largest in India, completed drilling in 2023.
- The **Gourangdih ABC Coal Mine** project will extract 62 million tonnes of coal over 27 years.

The Deocha-Pachami coal block in Bengal is the largest in India & one of the world's largest. Located in Birbhum Coalfield, it spans 10 sq. kilometres and holds an estimated 2,100 million tonnes of coal reserves.

Forest

- Rhinoceros **population increased by 20%**, from 289 to 347 in three years.
- **101 Bengal Tigers confirmed in Sundarbans** based on the **2022 Tiger Estimation**.
- 33 Gyps Vultures bred in captivity and released into the wild; 20 Northern River Terrapins released from Sundarbans Tiger Reserve.
- Rare rice varieties (**Lakshisaal, Danaguri, Kabirajsaal, Karpurkranti**) and vegetables conserved through community participation by **West Bengal Biodiversity Board (WBBB)**.

Information Technology

Anumati Portal

- Single window clearance system for providing NOC for mobile towers & optical fiber.

Suvidha Vehicles Facilitation System

- Operational at 6 Integrated Check Posts (ICPs) on the Indo-Bangladesh border for quick clearance and smooth vehicle movement. Reduced transaction costs. Awarded **Gold Award** under 'Government Process Re-engineering for Digital Transformation' at the **26th National Awards for e-Governance Scheme 2023** and **TECHGOV Awards 2023**.

Unique Document Identification Number (UDIN)

- Platform-based 25-alphanumeric system for attested documents, secured under blockchain technology.

Nirasan Portal


- Single window portal for handling cyber cases registered to the Adjudicating Officer.

Anumodan Portal

- UDIN-based Single Window Driver Authorization Generation Portal for vehicle owners. Drivers no longer need notarized consent; authorization can be generated online.



4. WEST BENGAL MISCELLANEOUS

Topic	Context	Exam Relevant Key pointers
Hepatitis 	West Bengal has achieved "remarkable success" in combating Hepatitis B, with a <u>current prevalence rate of just 0.07%</u> .	<ul style="list-style-type: none"> • Every year on July 28, World Hepatitis Day is observed. • Hepatitis is liver inflammation from viruses, alcohol or autoimmune issues. Hepatitis A and E are water and food borne. • Hepatitis B, C, and D spread via infected blood or bodily fluids. • There are vaccines to prevent hepatitis A and B. Hepatitis B first dose is given soon after birth. Autoimmune hepatitis cannot be prevented. • Hepatitis B & C are responsible for 96% of overall hepatitis mortality. • World Health Organization has a goal to eliminate hepatitis by 2030.
West Bengal (WB)- 4th largest state with 'active' /operational companies	Uttar Pradesh (UP) has overtaken West Bengal to become 3rd-largest state in terms of 'active'/operational companies - Data Ministry of Corporate Affairs.	<ul style="list-style-type: none"> • Only Maharashtra and Delhi surpass UP, which has 145,009 active companies (8.2% of national total) edging out West Bengal (144,348). In the past year-and-a-half, Uttar Pradesh added 28,649 active companies, second only to Maharashtra, while <u>West Bengal saw a growth of just 8,896</u>. Ministry of Corporate Affairs classifies 'active' companies by excluding those that are shut down, in liquidation, or deregistering. WB has 242,249 companies registered to date (compared with UP's 199,259). But Bengal has seen 94,039 closures, with 1,145 in liquidation, 456 dormant and 2,261 in deregistration.
Ban on Tobacco Products extended in West Bengal	The ban has been extended on manufacturing, storing and selling gutkha, pan masala products containing tobacco or nicotine for another year.	<ul style="list-style-type: none"> • The Commissioner of Food Safety of the state is empowered under Section 30 of the Food Safety and Standards Act, 2006 to prohibit in the interest of public health, the manufacture, storage, distribution or sale of any article of food in the whole of State, for a period of one year. The West Bengal government had decided to ban gutkha, betel spice and several other tobacco products for the first time in 2019. In 2013, the state government had earlier banned khaini, gutkha and pan masala in West Bengal for one year.
Shilabati River	Water of Shilavati overflowed and broke the dam of the river.	<ul style="list-style-type: none"> • Originating near Chak Gopalpur in Purulia Shilabati flows southeast through Bankura and Paschim Medinipur. Joining the <u>Dwarakeswar near Ghatal</u>, it becomes the Rupnarayan before merging with the Hooghly River, which empties into the Bay of Bengal.

5. TRIBES IN BENGAL

The three Particularly Vulnerable Tribal Groups (PVTGs) in West Bengal are the Birhor, Lodha, and Toto tribes. The Birhor tribe lives in Purulia, the Lodha tribe in Paschim Medinipur and Sagar Block of South 24 Parganas, and the Toto tribe in Jalpaiguri.

WEST BENGAL






Asur, Khond, Hajong, Ho, Parhaiya, Rabha, Santhals, Savar, Bhumij, Bhutia, ChikBaraik, Kisan, Kora, Lodha, Kheria, Khariam, Mahali, Mal Pahariya, Oraon

NATIONAL

One Rank One Pension (OROP)

Context

- PM Modi celebrated OROP's 10th anniversary. (came into effect in 2014).

OROP Scheme

- Ensures equal pensions for same rank and service, regardless of retirement date.
- Pension based on 2013 retirees' average pension for the same rank.
- Arrears paid in half-yearly installments; family pensioners and gallantry awardees get one-time payment.
- Managed by **Defence Ministry**, revised every five years.

First Dry Port in Bihar

Context

- Bihar's first dry port was inaugurated at **Bihta**, near **Patna**.

Details:

- A **dry port** (or **inland container depot**) handles cargo storage and transportation, bridging sea/air ports with inland regions. It was crucial for Bihar, which produces **agro-based goods**, **garments** and **leather products** from diverse locations.

Digital India Common Service Centre (DICSC) Project

Context:

- The **Ministry of Electronics and Information Technology (MeitY)** has launched the **Digital India Common Service Centre (DICSC)** project.

Details

- Bridges the **digital divide** in rural India with e-governance, financial and commercial services.
- Provides services like **Aadhaar registration**, **banking**, and **tele-law** with high-speed broadband.
- Managed by **Common Services Centres e-Governance Services India Limited**.

Tulip Programme

Context

- The Union Minister for **Social Justice and Empowerment** launched the **TULIP (Traditional Artisans' Upliftment Livelihood Programme)**.

Details:

- **About:** TULIP provides an e-platform for artisans from **SCs, OBCs**, sanitation workers and persons with disabilities to market their products.

Aim:

- **Empower marginalized artisans** by offering global exposure and facilitating sales through e-marketing.

PM e-Drive Scheme

Context

- The **PM E-DRIVE** Scheme was approved with a **Rs. 10,900 crores** outlay till **March 2026**.

Details:

- **Aim:** Accelerate **electric vehicle (EV)** adoption, establish charging infrastructure and build a competitive EV manufacturing ecosystem.

Key Components:

- **Subsidies:** Incentives for **e-2Ws, e-3Ws, e-ambulances, e-trucks**, and emerging EVs.
- **Grants for Capital Assets:** Funding for **electric buses**, charging stations, and testing facility upgrades.
- **Administrative Costs:** Includes funding for **IEC** activities and project management.

Samarth Scheme

Context:

- Samarth Scheme is **extended for 2 years (Till 2026)** with a **Rs. 495 Cr. Budget**.

About:

- Demand-driven, placement-oriented program by the Ministry of Textiles.
- Focuses on job creation in the textile sector (entire value chain **excluding Spinning and Weaving**).

- Offers upskilling/reskilling in Apparel & Garmenting. Till now, 3.27 lakh trained, with 79.5% employed (88.3% women).

PM Vishwakarma Scheme

Context:

- The PM Vishwakarma Scheme has received over 25 million applications.

Details

- **Launched in 2023.**
- **Nodal Ministry:** Ministry of Micro, Small and Medium Enterprises.
- **Type:** Central Sector Scheme, fully funded by the Government of India.

Objectives:

- Provides support to artisans across 18 trades, enabling them to sell products globally and strengthening the local economy by promoting traditional crafts.

Key Features:

- **Recognition:** PM Vishwakarma certificate and ID card.
- **Skill Upgradation:** Basic training (5–7 days) with Rs. 500/day stipend; Advanced training (15+ days) with stipend.
- **Toolkit Incentive:** E-voucher of up to Rs. 15,000 for tools.
- **Credit Support:** Collateral-free loans up to Rs. 3 lakhs, with 5% concessional interest and 8% government subvention.
- **Marketing Support:** Quality certification, branding, e-commerce on boarding, and advertising for better market linkages.

PM YASASVI Scheme

Context:

- PM YASASVI empowers students to reach their potential and contribute to society.

About:

- **PM YASASVI** provides scholarships to students from **Other Backward Classes (OBC)**, **Economically Backward Classes (EBC)**, and **Denotified Tribes (DNT)** for quality education. It was launched by the **Ministry of Social Justice and Empowerment**. It integrates past scholarship schemes.
- **Selection:** Based on the **YASASVI Entrance Test (YET)** conducted by the **National Testing Agency (NTA)**.

- **Objectives:** Promotes **educational empowerment** and overcomes **financial barriers**. Supports growth from **school to higher education**. Empowers marginalized communities.

Section 6A of The Citizenship Act, 1955

Context

- The Supreme Court upheld **Section 6A** of the Citizenship Act.

About Section 6A:

- Based on the **Assam Accord (1985)**, it grants citizenship to migrants in Assam based on their entry before **January 1, 1966**, with limited rights for those arriving between **January 1, 1966**, and **March 24, 1971**.
- Migrants after **March 25, 1971**, are considered foreigners.

Pradhan Mantri Mudra Yojana (PMMY)

Context

- The government has doubled the loan limit under **PMMY** to **Rs. 20 lakhs** to boost entrepreneurship.

About PMMY:

- Launched in **2015**, to provide loans up to **Rs. 10 lakh** for small/micro enterprises.
- Aims for **financial inclusion** and support to marginalized groups.

Categories

- **Shishu:** Loans up to Rs. 50,000.
- **Kishore:** Loans Rs. 50,000 to Rs. 5 lakh.
- **Tarun:** Loans Rs. 5 lakh to Rs. 10 lakh.

Latest Developments:

- “**Tarun Plus**” category introduced for loans **Rs. 10 lakh to Rs. 20 lakh** for successful **Tarun category** borrowers.
- **Credit Guarantee Fund** coverage for loans up to **Rs. 20 lakh**.

Ude Desh Ka Aam Nagrik

Context:

- The **UDAN** scheme launched by Ministry of Civil Aviation completes **8 years** of implementation.

About UDAN:

- Launched in **2016** under India's **National Civil Aviation Policy (NCAP)** to enhance regional connectivity.
- The scheme incentivizes airlines to connect remote and underserved regions by offering them support through Viability Gap Funding (VGF) and various concessions. It aims to improve infrastructure and connectivity. The **first UDAN flight** took off in **2017**, connecting Shimla to New Delhi.

Support Mechanisms:

- **Airport Operators** waive landing and parking charges.
- **Airports Authority of India (AAI)** exempts **Terminal Navigation Landing Charges (TNLC)**.
- **Excise duty** on Aviation Turbine Fuel (ATF) capped at **2%** for three years.
- States offer **reduced VAT** on ATF (1% or less) and provide essential services at reduced rates.

Lady Justice Statue

Context:

- The **Supreme Court of India** introduced a new **Lady Justice** statue in its judges' library.



Details

- Designed by **Vinod Goswami**.
- Depicts a **saree-clad woman** holding scales and the **Constitution of India**, replacing the sword.
- The **absence of a blindfold** symbolizes that law sees everyone equally, highlighting **impartiality and equality** in justice.

Inter-State Council

Context

- Recently, the **Inter-State Council** was reconstituted.

About the Council:

- **Estd:** It was formed in **1990** through a presidential order.
- **Formation:** It is based on the recommendations of **Sarkaria Commission**.

- **Objective:** To facilitate policy discussions and promote collaboration between Union and states.
- **Composition:** **Chairperson:** Prime Minister. **Members:** Chief Ministers of all states, Chief Ministers of Union Territories with legislatures, Administrators of Union Territories without legislatures and relevant Union Cabinet Ministers.

India's Gold Reserves

Context

- India's **gold reserves** total **854.73 metric tonnes**, as per a recent **Reserve Bank of India** report.

Key Details

- **Domestic Holdings:** **510.46 metric tonnes** within India.
- **Overseas Holdings:** **324.01 metric tonnes** stored with **Bank of England & Bank for International Settlements**.
- **Gold's Share:** Accounts for **9.32%** of India's total foreign exchange reserves, up from **8.15%** in March 2024.
- **Global Rank:** India ranks **8th** in the world for gold reserves, behind the United States, Germany, and Italy.

SC orders Liquidation of Jet Airways under Article 142

Plenary Powers under Article 142:

Key Provisions:

- **Part 1:** Grants the Supreme Court authority to issue any judgment or order necessary for ensuring complete justice in any case.
- **Part 2:** Empowers the Court to:
 - Ensure attendance of individuals.
 - Ensure the discovery and production of documents.
 - Investigate and punish contempt of court.

Judicial Activism:

- Article 142 allows the Court to bypass statutory limitations to achieve complete justice, even if it means taking actions beyond legislative restrictions.
- The Court can override laws, Acts, or orders if deemed necessary for justice.

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INTERNATIONAL

Chabahar Port

Context

- India offered Chabahar Port in Iran to Afghan businesses during a recent meeting. Earlier, India signed a 10-year contract to develop and operate the port.

About Chabahar Port:

Location:

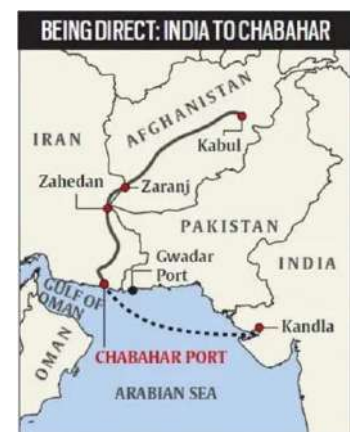
- On Iran's **Makran Coast**, near the Gulf of Oman and the Strait of Hormuz.
- Only Iranian port** with direct access to the Indian Ocean.
- Close to Pakistan's **Gwadar Port** (170 km west).
- Closest Indian port: **Kandla** (550 nautical miles);

Components:

- Two terminals – **Shahid Kalantari** and **Shahid Beheshti**.

Strategic Importance:

- Part of the **International North-South Transport Corridor (INSTC)** linking Indian Ocean to Northern Europe.
- Enhances connectivity and trade routes for India, **bypassing Pakistan**.



Adaptation Gap Report 2024

Context

- Recently the Adaptation Gap Report 2024 titled "*Come Hell and High Water*" was released.

About the Report

- Published annually by **United Nations Environment Programme (UNEP)**. Started in 2014.

- Assesses global progress on **climate adaptation efforts**. It highlights the **adaptation gap**: the mismatch between actual efforts and the required needs to mitigate climate risks.

4B Movement

Context

- Post-Trump's victory, the **4B Movement** gains momentum in the US, protesting patriarchy and misogyny by rejecting sex and marriage with men.

About:

- Origin:** South Korea post-MeToo and **Escape the Corset** movements.
- 4B (Four Nos):** No dating, sex, marriage, or children with men.
- Expanded to 6B4T:** Includes rejecting misogynistic firms, fandom culture, and male-gaze beauty standards.

QS World University Rankings

Context

- Recently the QS World University Rankings was released.

Details

- QS World University Rankings is a portfolio of comparative college and university rankings compiled by **Quacquarelli Symonds**, a higher education analytics firm. It was **first published in 2014**.

Key Indicators:

- Academic Reputation, Employer Reputation, Faculty-Student Ratio, and International Research Network.**

Indian Universities in 2024 ranking:

- Top 50:** IIT Delhi (44th), IIT Bombay (48th). **Top 100:** IIT Madras (56), IIT Kharagpur (60), IISc (62), IIT Kanpur (67), University of Delhi (81).

World Intellectual Property Report 2024

Context

- India entered the **top 10** globally for **patents, trademarks, and industrial designs**, as per **WIPO 2024**.

Key Highlights:

- Patent Growth:** India saw a **15.7%** rise in patent applications in 2023, leading the top 20 IP economies.
- Industrial Designs:** Applications increased by **36.4%**, emphasizing creative sectors.
- Trademarks:** Ranked **4th** globally, with a **6.1%** rise in filings.

The World Intellectual Property Report (WIPR) is a biennial analytical publication by the World Intellectual Property Organization, an agency of the United Nations. The report was first published in 2011.

Asset Recovery Interagency Network-Asia Pacific (ARIN-AP)

Context

- India, via the **Directorate of Enforcement (ED)**, has joined the **Steering Committee** of ARIN-AP.

ARIN-AP:

- Includes **28 jurisdictions** and **9 observers**, focused on **asset tracing, freezing** and **confiscation** across borders.
- It facilitates **intelligence-sharing** for cross-border crime asset recovery.
- Part of the **Global CARIN Network**, targeting **proceeds of crime** in the Asia-Pacific.
- India is** set to assume **ARIN-AP presidency** in 2026. India will host the **Annual General Meeting**, enhancing its leadership in global asset recovery efforts.

International Solar Alliance

Context

- The **7th ISA Assembly** was held in **New Delhi**, with **India** elected as president and **France** as co-president for the 2024-2026 term.

Key Facts about ISA:

- Launch:** Established in **2015** by **India** and **France** at **COP21** in Paris.

Objectives:

- Achieve 1000 GW solar capacity by 2030.**
- Mobilize USD 1 trillion** for solar investments.
- Reduce solar energy costs through financial mechanisms.** -Mainstream solar energy globally.

Evolution:

- Initially for tropical countries, ISA expanded in 2020 to include all UN member states. **Over 110 countries** have signed the framework, with **90 full members**.

- Headquarters:** Located at the **National Institute of Solar Energy (NISE), Gurugram, India.**
- Director General:** Leads the Secretariat for a **4-year term.**

Asian Buddhist Summit

Context

- The Ministry of Culture and International Buddhist Confederation (IBC) organized the First Asian Buddhist Summit (ABS).

IBC is a Buddhist umbrella body with its base in New Delhi that serves as a common platform for Buddhists worldwide. IBC was started in 2010.

Key Highlights:

- Theme:** 'Role of Buddha Dhamma in Strengthening Asia'.
- Participants:** Sangha leaders, scholars and practitioners from various Buddhist traditions across Asia.
- India's Act East Policy:** The summit aligns with India's policy for the collective and spiritual development of Asia, with Dhamma as the guiding light.

Fact Finder

Description	 UNDP	 ILO	 WORLD BANK	 UNFPA	 FAO
Formation	22nd November 1966	October 1919	1944	1967	1945
HeadQuarters	New York	Geneva, Switzerland	Washington, DC	New York	Rome, Italy
Parent Organisation	ECOSOC(United Nations Economic and Social Council)	United Nations Agency	United Nations	United Nations and ECOSOC - for policy guidance	United Nations Economic and Social Council
Operates in	170 countries	187 member states	189 countries	156 countries	195 members
Facts	UNDP is the third highest ranking official of the United Nations	played a significant role in promoting labour and human rights.	India is currently the largest client of World bank	UNFPA was later changed to United Nations Population Fund in 1987.	Aims to achieve 'zero hunger' by 2030

State Of Food and Agriculture 2024 Report

Context

- The **Food and Agriculture Organisation** of the United Nations released the **State of Food and Agriculture 2024** report.

Key Findings:

- True Cost Accounting:** Highlights hidden costs in agrifood system- environmental, health and social impacts.
- Global Hidden Costs:** It is estimated at **\$12 trillion annually**. Unhealthy diets contribute to **70%** of these costs.
- India's Position:** India's hidden costs are the **third largest globally at \$1.8 trillion.**

About the State of Food and Agriculture Report:

- An annual publication by the **Food and Agriculture Organisation** focusing on global food and agriculture systems.
- 2024 edition calls for more **inclusive, resilient, and sustainable** agrifood systems.

Comprehensive Nuclear-Test-Ban Treaty Organization

Context

- Iran's earthquakes (October 5, 2024) sparked nuclear test rumours; CTBTO confirmed natural causes.

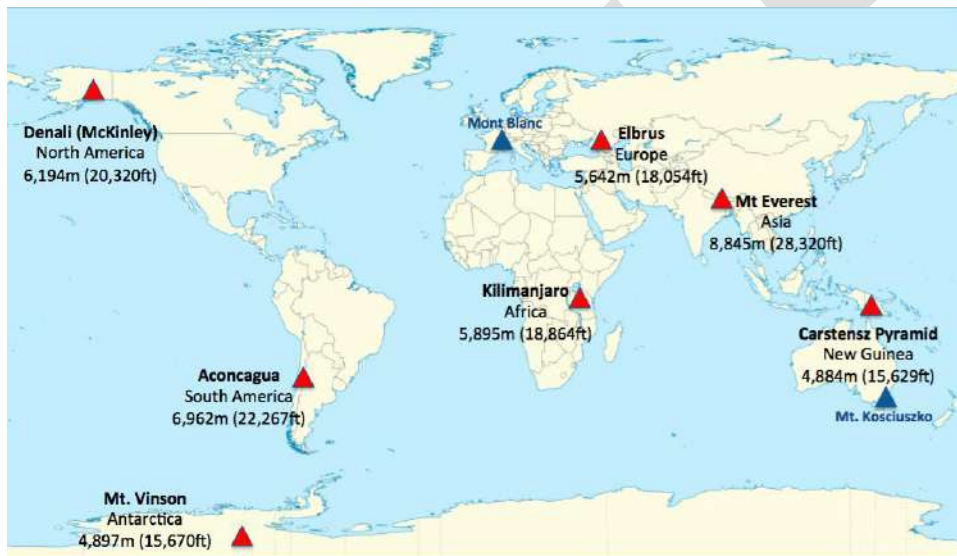
About CTBTO:

- Enforces the **Comprehensive Nuclear Test Ban Treaty (CTBT)** to ban nuclear test explosions.
- **HQ:** Vienna, Austria. **CTBT Status:** Signed by **183** nations, ratified by **164**. Pending ratification by 8 **Annex-2 states:** U.S., China, Iran, Egypt, Israel, India, Pakistan, North Korea.

Monitoring:

- **International Monitoring System (IMS):** 300+ facilities in 89 countries using seismic, infrasound, hydroacoustic, and radionuclide tech to detect nuclear tests globally.

Fact Finder: Continent Wise Highest Mountain Peak



Blue Helmets

In News

- The world needs blue helmets to act with purpose, not remain passive.



About

- **Blue Helmets** are the United Nations peacekeeping forces, named after their distinctive helmets. First mission by these forces was launched in **1948** to monitor the Armistice Agreement between **Israel** and Arab countries.
- **Force Deployment** requires **consent** from conflicting parties and **UN Security Council** authorization.

- **UN peacekeeping forces** are formed on an **ad hoc** basis with personnel from member states as the **UN lacks a standing army.**

Core Principles:

- **Consent of the parties** involved in the conflict.
- **Impartiality:** Peacekeepers must remain neutral.
- **Non-use of force** except in self-defense or to protect the mandate.

Roles and responsibilities:

- Monitoring ceasefires, protecting civilians, disarming ex-combatants, supporting elections, promoting human rights and the rule of law.

Personnel:

- Approximately **81,820 active personnel** from over **120 countries.** **Bangladesh, Nepal, and India** are the top contributors.

SCIENCE

Aditya-L1 Mission

Context

- The first scientific result from the **Aditya-L1 mission** has been released.

About Aditya-L1 Mission:

- India's first dedicated mission to study the Sun, observing from **Lagrangian Point 1 (L1)**, where gravitational forces of the Sun and Earth are in equilibrium, allowing continuous, interference-free observations.



LignoSat: World's First Wooden Satellite

Context

- Japan has launched **LignoSat**, the first wooden satellite, to test wood as a space-grade material.

About LignoSat:

- Made from **honoki**, a Japanese magnolia, using traditional techniques without screws or glue.
- Developed by **Kyoto University** and **Sumitomo Forestry Co.**, it will orbit Earth for six months.
- It will study how wood handles **space's extreme conditions** and assess its potential to protect **semiconductors** from **space radiation**.

India meets WHO International Standards for Vaccine Regulations

Context

- The **World Health Organization (WHO)** has affirmed that India's **National Regulatory Authority (NRA)**, led by the **Central Drugs Standard Control Organisation (CDSCO)**,

meets global benchmarks for a functional vaccine regulatory system. This follows a comprehensive review from September 16-20, 2024, using WHO's **Global Benchmarking Tool (GBT) Version VI**.

Details

- India retains **Maturity Level 3**, with the highest marks in several functions, reaffirming its role as a key player in global vaccine supply.
- The evaluation covered core regulatory areas like licensing, vigilance, market surveillance and clinical trial oversight.
- India's vaccine regulatory system ensures compliance with WHO standards, bolstering its reputation as a global vaccine supplier to over 150 countries.

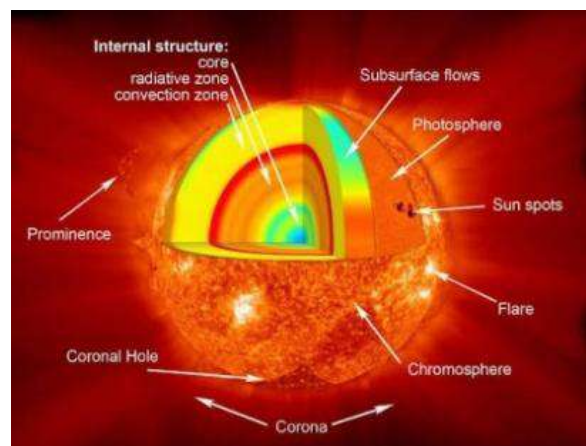
Sun's Chromosphere

Context

- Astronomers have mapped the **differential rotation of the Sun's chromosphere** using 100 years of data from the **Kodaikanal Solar Observatory**.

Details

- The study shows that the Sun's equator rotates faster (13.98°/day) than its poles (10.5°/day), offering insights into its magnetic field and solar activity.
- Note: The chromosphere is a thin layer of plasma that lies between the Sun's visible surface (the photosphere) and the corona (the Sun's upper atmosphere). It extends for at least 2,000 km (1,200 mi.) above the surface.**



PSLV-37 Re-entry

Context

- PSLV-C37 re-entered Earth's atmosphere.

Details

- On **15 February 2017**, the **PSLV-C37** launched a record 104 satellites, including **Cartosat-2D** and other co-passenger satellites. This mission had set a world record for the most satellites launched by a single vehicle.
- On **6 October 2024**, the upper stage (PS4) of **PSLV-C37** re-entered Earth's atmosphere after its orbit decayed. The re-entry, predicted

by **ISRO System for Safe and Sustainable Space Operations Management**, occurred in the **North Atlantic Ocean**.

- This timely re-entry complied with **international debris mitigation guidelines**, including the **Inter-Agency Space Debris Coordination Committee's** recommendation to limit defunct objects' orbital life to **25 years**.
- ISRO's proactive efforts to reduce the orbital lifetime of PSLV upper stages to under **5 years** and future controlled re-entries align with its **Debris Free Space Mission** target for 2030.

Compounded vs. Generic Drugs: In News

Aspect	Compounded Drugs	Generic Drugs
Definition	Customized medications prepared based on doctor's prescription	Medications with same active ingredients as brand-name drugs
Purpose	Tailored for individual needs (dose, form, ingredients)	Affordable alternatives after brand patent expires
Regulation	Not as widely regulated, but must meet quality standards	Strictly regulated by authorities, same standards as branded
Use Cases	Allergies, unique dosages, non-available forms	Chronic conditions (e.g., hypertension, diabetes)
Production	Prepared in specialized pharmacies or hospitals	Produced after patent expiry, sold under chemical name
Cost	Higher, based on customization	Lower, more affordable than branded drugs
Example in India	Available in hospitals or specialized pharmacies	Paracetamol (generic), sold as Crocin, Calpol
Global Role	Limited international production	India produces 20% of the world's generic drugs

Konark Wheel Replicas unveiled at Amrit Udyan

Context

- Four sandstone replicas of the Konark wheel at **Rashtrapati Bhavan Cultural Centre** and **Amrit Udyan**.

Details

- The **Konark Sun Temple** in **Odisha** (UNESCO World Heritage Site) symbolizes a chariot for the **Sun god Surya**. It was built in **1250 CE** by **King Narasimhadeva I**. **Chandrabhaga Mela** is a major pilgrimage at the site.
- 24 wheels** in temple represent **time, months, and days of the week**; **seven horses** represent the days.
- Carvings include **foliage, birds, and medallions** with women. Spokes act as **sundials**.



SPADEX (Space Docking Experiment)

Context

- Ananth Technologies handed over two 400 kg satellites to **ISRO** for the **Space Docking Experiment**.

Details

- SPADEX** is an **ISRO** mission to develop technologies for **orbital rendezvous, docking, and formation flying**.
- It includes two **400 kg IMS class-2 satellites**: one **Chaser** and one **Target**, launched together in different orbits.

- **Launch:** Scheduled for **Mid-December 2024** from **Satish Dhawan Space Centre** aboard **PSLV**.
- SPADEX will support future missions like **Chandrayaan-4, Bharatiya Antariksha Station,** and **Gaganyaan**.

James Webb Space Telescope

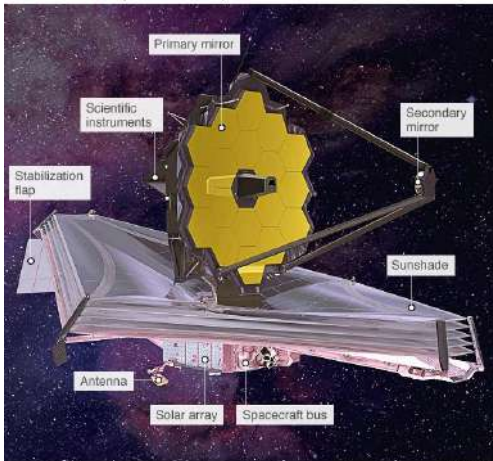
Context

- James Webb Space Telescope (JWST) uncovered three massive galaxies, each 100 billion times the mass of our Sun.

James Webb Space Telescope (JWST)

- JWST, the **largest space telescope**, is designed for **infrared astronomy**. With a mirror **2.7 times larger** than Hubble's, it captures distant, faint objects. Launched in **2021**.

James Webb Space Telescope



Source: NASA

Atacama Large Millimetre/submillimeter Array (ALMA)

- ALMA, located in the **Atacama Desert, Northern Chile** consists of **66 telescopes** observing **millimetre and submillimeter wavelengths**. Positioned at **5,000 m, Chajnantor plateau** – it provides detailed insights into **star and planet formation**. It is a global collaboration between **Europe, USA, Canada, Japan, South Korea, Taiwan,** and **Chile**.

Parker Solar Probe

Context

- **NASA's Parker Solar Probe** is preparing for a crucial final flyby of **Venus**.

About Parker Solar Probe (PSP),

- **NASA's Parker Solar Probe (PSP)**, launched in

2018, is on a mission to study the Sun's outer corona.

- The Parker Solar Probe will approach the **Sun** within **9.86 solar radii** and reach speeds of **690,000 km/h** by **2025**, making it the **fastest object** ever built.
- It is the **first NASA spacecraft named after a living person**, physicist **Eugene Newman Parker**.
- The probe will explore the Sun's **corona**, studying its **structure, plasma dynamics,** and **magnetic fields**. It will also investigate the **solar wind** and the processes that accelerate energetic particles.

Beaver Moon/ Supermoon

Context

- Beaver Moon, the last supermoon of 2024, occurred on **November 15**.

What is a Supermoon?

- A **supermoon** happens when the moon reaches its closest point to Earth, or **perigee**, in its elliptical orbit. This makes the moon appear **up to 14% larger** and **30% brighter** than an average full moon.



Industrial Alcohol

Context

- The **Supreme Court** in the **U.P. vs. M/S. Lalta Prasad Vaish** case held that states can tax both alcoholic beverages and industrial alcohol.

Regulation of Alcohol:

- The **Union Government** regulates industrial alcohol under the **Industries (Development and Regulation) Act, 1951**.

Seventh Schedule:

- **Entry 8 (State List):** States regulate intoxicating liquor.
- **Entry 52 (Union List):** Centre regulates industries for public interest.
- **Industrial Alcohol:** Ethanol (C_2H_5OH) with added impurities, unfit for human consumption.

Difference from Usable Alcohol:

- **Absolute Alcohol:** Pure ethanol, drinkable but caution required.
- **Denatured Alcohol:** Toxic, unfit for consumption due to additives like methanol.

Applications:

- **Absolute Alcohol:** Used in labs for sterilization and chemical extraction.
- **Denatured Alcohol:** Used in industry for fuel, solvents, but toxic for medical use.





WBCS Mains Tests Series 2024

25

TESTS

WITH NEW DESCRIPTIVE PATTERN

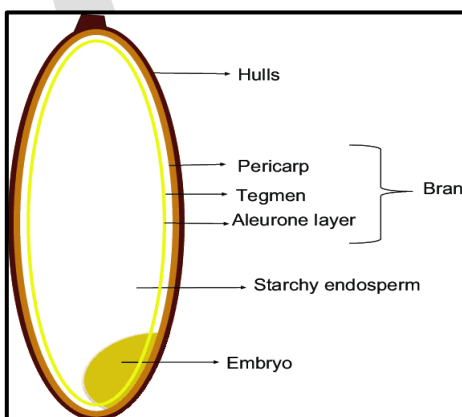
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BIOLOGY & ENVIRONEMNT

Bran

Context

- A study published in *Nature Springer* highlights that removing the bran from millets reduces protein, dietary fiber, fat, minerals, and phytates, while increasing carbohydrates and amylose.



Key Points:

- **Bran:** The edible outer layer of grains like wheat, millets and rye, rich in dietary fiber and bioactive substances.
- **Effects of Bran Removal:**
 - **Decreases:** Protein, dietary fiber, fat, minerals, and phytates.
 - **Increases:** Carbohydrates and amylose.

Nutraceuticals

Context

- India's Nutraceutical Industry is set for global growth with supportive initiatives.

What Are Nutraceuticals?

- Nutraceuticals are products with both food and medicinal qualities, promoting health, controlling symptoms and preventing diseases. The term, coined in 1989 by Stephen

DeFelice, combines "nutrient" and "pharmaceutical."

Palm Oil

Context

- India's palm oil imports increased by 59% In October 2024.

Palm Oil:

- Source:** Derived from the African oil palm tree (*Elaeis guineensis*).
- Types:** **Crude palm oil:** Extracted from fruit pulp, used for cooking;
- Palm kernel oil:** Extracted from seeds, used for non-food applications.
- Production:** Yields about 5 times more than traditional oilseeds.
- Uses:** Packaged foods, cosmetics, detergents, soap, ice cream, pharmaceuticals, and biofuels.
- Import:** India is world's largest importer & 2nd-largest consumer, primarily from Indonesia, Malaysia & Thailand.
- National Mission on Edible Oils - Oil Palm (NMEO-OP)** launched to increase domestic production by 2025-26. Focuses on Northeast India and Andaman & Nicobar Islands. **Mizoram** first state in the Northeast to start planting oil palm.
- World's Top Producers:**
 - Indonesia:** 57% of global production.
 - Malaysia:** 26% of global production.

Heavy Metal

Context

- Lead exposure causes \$6 trillion in economic losses from premature death - Lancet Study.

About

- Heavy metals are naturally occurring elements with an **atomic number greater than 20** and an **atomic density over 5 g/cm³**, exhibiting metal-like characteristics. **Examples:** Arsenic, cadmium, chromium, copper, lead, manganese, mercury, nickel, uranium.

Salience Network in Brain

Context

- A recent study has found the expansion of the salience network in individuals with depression.

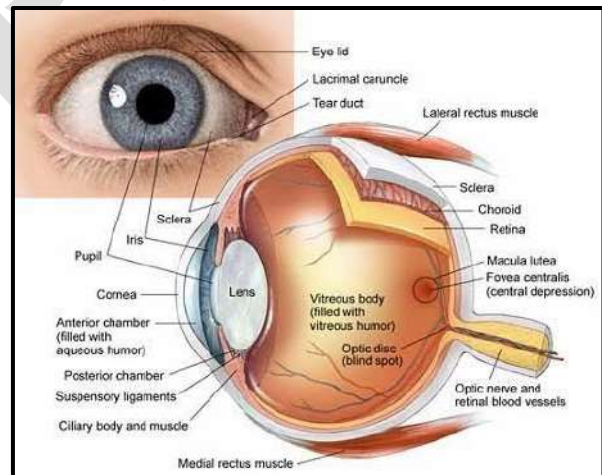
Salience Network (SN):

- SN is composed of **anterior insula (AI)** and **dorsal anterior cingulate cortex (dACC)**. It detects and filters salient stimuli, guides attention, regulates emotional responses and processes **pain, emotion, reward and motivation**. **Role:** It facilitates switching between **default mode network (DMN)** (active during rest and daydreaming) and **central executive network (CEN)** (involved in cognitive tasks). Imbalances in the salience network are associated with mental health disorders.

Cornea

Context

- The **Ministry of Health and Family Welfare (MoH&FW)** will amend the **Transplantation of Human Organs and Tissues Act (THOTA)**, 1994, to allow **cornea** retrieval from all Indian patients who die in hospitals without family consent.




Cornea


- Clear, dome-shaped front layer of the eye. Located in front of the anterior chamber, surrounded by sclera.
- Function:** Protects inner eye structures, refracts light, absorbs oxygen.

Layers of the Cornea:

- Epithelium:** Outermost layer, sensitive to pain, barrier.
- Bowman's Layer:** Tough, provides structure.
- Stroma:** Thickest, helps in light refraction.
- Pre-Descemet's Layer (PDL):** Airtight barrier, recent discovery.
- Descemet's Layer:** Thin, stretchy, protective.



MONKEY POX VIRUS



An initiative of **APTI PLUS**

Context

As many as 85,765 confirmed and 1,382 probable cases of Monkeypox were reported from 110 countries since January 1, 2022, according to a statement by the World Health Organization (WHO).

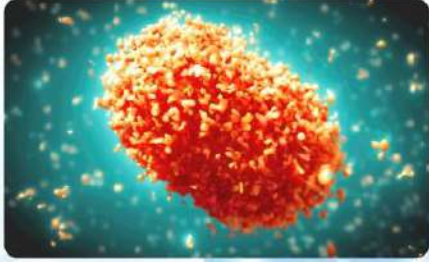
About

Monkeypox is a viral zoonotic disease that occurs primarily in tropical rainforest areas of Central and West Africa and is occasionally exported to other regions.

Monkeypox virus is an enveloped double-stranded DNA virus that belongs to the Orthopoxvirus genus of the Poxviridae family.

The first case of monkeypox in humans was recorded in 1970 in the Democratic Republic of Congo during a period of intensified effort to eliminate smallpox.

Scientists have so far discovered two distinct genetic groups of monkeypox virus—Central African and West African.



Cause

It is caused by monkeypox virus, a member of the Orthopoxvirus genus in the family Poxviridae.

Monkeypox belongs to the same family of viruses as smallpox. But Smallpox had a higher fatality rate than monkeypox.

Smallpox was declared eradicated worldwide in 1980.

Symptoms

Monkeypox is characterised by flu-like symptoms and swelling of the lymph nodes, which gradually progresses to a widespread rash all over the face and body.

Transmission

Monkeypox virus is mostly transmitted to people from wild animals such as rodents and primates, but human-to-human transmission also occurs.

It spreads from one person to another via respiratory droplets.

Treatment

There is currently no specific treatment recommended for monkeypox.

Vaccination against smallpox was about 85% effective in preventing monkeypox.

Thus, prior childhood smallpox vaccination may result in a milder disease course.

Starch

Context

- New studies show that our ancestors carried more **amylase genes** in multiple waves over several hundred thousand years.

Starch

- A non-reducing polysaccharide made of glucose monomers, with the chemical formula $(C_6H_{10}O_5)_n$.
- **Composition:** Made of **amylose** (linear polymer) and **amylopectin** (branched form), with a varying ratio
- depending on the starch type (waxy, normal, high amylose).

Role:

- **Energy storage:** Plants store excess glucose as starch.
- **Dietary source:** Provides energy in animals.
- **Enzymatic breakdown:** Broken down by **amylase** (found in saliva and pancreas) for energy.

Uses:

- **Nutritional:** Provides glucose and essential nutrients (B vitamins, iron, calcium, folate).
- **Pharmaceutical:** Used as a binder in tablet and capsule production.
- **Dietary function:** Converts glucose into energy.
- **Culinary:** Used as a thickener and stabilizer in foods (puddings, soups, sauces).

Lipids

Context

- Low metabolic flexibility to lipids (MetF-lip) in skeletal muscle can lead to ectopic lipid accumulation, causing metabolic disturbances.




Metabolic Flexibility (MetF)

- The **ability to adjust fuel oxidation (carbs or fats)** based on availability to ensure ATP synthesis matches energy needs.

Lipids:

- Organic molecules (fats and oils) essential for energy storage, cell membranes, hormones, and vitamins.

What's the difference between an endemic, epidemic and pandemic disease?

Endemic disease	Epidemic disease	Pandemic disease
		
Constantly present in a population or region, with relatively low spread	Sudden increase in cases spreading through a large population	Sudden increase in cases across several countries, continents or the world

Source: Wellcome

Types of Lipids:

- **Fats (Triglycerides):** Energy storage, insulation, organ protection.
- **Phospholipids:** Form cell membranes.
- **Steroids:** Cholesterol and hormones like estrogen.

Functions of Lipids:

- Long-term energy reserve (9 cal/gram).
- Protect organs and assist in vitamin absorption.
- Aid in hormone production and nerve signal transmission.

Good vs. Bad Fats:

- **Good Fats:** Found in nuts, fish, olive oil; reduce bad cholesterol (LDL).
- **Bad Fats:** Found in processed foods; increase LDL and heart disease risk.

Types of Fats:

- **Saturated Fats:** Raise cholesterol (e.g., butter).
- **Unsaturated Fats:** Improve heart health (e.g., fish).
- **Trans Fats:** Harmful, raise bad cholesterol.

Endemic Diseases in India
At least 14 endemic diseases already prevalent in India

DISEASE	CAUSE
Dengue	Virus
Chikungunya	Virus
Echinococcosis	Tapeworm
Kala-azar	Protozoa
Leprosy	Bacteria
Soil-transmitted helminthiases	Worm
Taeniasis/cysticercosis	Tapeworm
Trachoma	Bacteria
Foodborne trematodiasis	Flatworm
Lymphatic filariasis	Worm
Rabies	Virus
Snakebite	Venom
Mycetoma	Bacteria
Scabies	Mites

Source: World Health Organisation

GENERAL SCIENCE [STATIC GK]

- For a constant wavelength, if the frequency is doubled, the velocity of the wave will also get doubled.
- Energy of photon decreases with increasing wavelength.
- A car moving in a circular path experiences an inward force called **centripetal force**, which keeps it in circular motion. This force is always directed toward the center of the circle.
- **Cloud seeding** enhances precipitation by introducing substances like **silver iodide** into clouds to form ice crystals and encourage rainfall in drought areas.
- **Antibiotics** treat **bacterial infections** by interfering with the **bacterial cell wall**, **protein synthesis**, or **DNA replication** processes.
- **Optical fibers** use the principle of **total internal reflection** to transmit light over long distances with minimal signal loss.

What is a heat dome?

- A heat dome occurs when an area of high-pressure traps warm air over a region, just like a lid on a pot, for an extended period of time.
- The longer that air remains trapped, the more the sun works to heat the air, producing warmer conditions with every passing day.
- Heat domes generally stay for a few days but sometimes they can extend up to weeks, which might cause deadly heat waves.

Differences between C ₃ and C ₄ plants		
S. No.	C ₃ Plants	C ₄ Plants
1.	CO ₂ fixation takes place in mesophyll cells only.	CO ₂ fixation takes place mesophyll and bundle sheath.
2.	CO ₂ acceptor is RUBP only.	PEP in mesophyll and RUBP in bundle sheath cells.
3.	First product is 3C- PGA.	First product is 4C- OAA.
4.	Kranz anatomy is not present.	Kranz anatomy is present.
5.	Granum is present in mesophyll cells.	Granum present in mesophyll cells and absent in bundle sheath.
6.	Normal Chloroplast.	Dimorphic chloroplast.
7.	Optimum temperature 20° to 25°C.	Optimum temperature 30° to 45°C.
8.	Fixation of CO ₂ at 50 ppm.	Fixation of CO ₂ even less than 10 ppm.
9.	Less efficient due to higher photorespiration.	More efficient due to less photorespiration.
10.	RUBP carboxylase enzyme used for fixation.	PEP carboxylase and RUBP carboxylase used.
11.	18 ATPs used to synthesize one glucose.	Consumes 30 ATPs to produce one glucose.
12.	Efficient at low CO ₂ .	Efficient at higher CO ₂ .
13.	Example: Paddy, Wheat, Potato and so on.	Example: Sugar cane, Maize, Sorghum, Amaranthus and so on.

- **Gravitational lensing** occurs when light from a distant star or galaxy is bent around a massive object like a **black hole** or **galaxy cluster**, due to gravity. This phenomenon, predicted by **Einstein's theory of relativity**.
- **Bernoulli's principle** explains how an airplane's wing shape generates lift. Faster air over the curved top reduces pressure, creating an upward force that lifts the plane.
- **Piezoelectric Effect** converts **mechanical pressure** into electricity, used in **microphones** and **lighters**.

- **Doppler Effect** in radar is used to measure speed in **speed guns** and weather systems.
- In **ultrasound imaging**, **sound waves** create internal body images for medical diagnostics.
- **Surface tension** in liquids enables phenomena like **capillary action** in plants.
- **Fiber Optics** transmits data as light through cables, critical for internet and medical imaging.
- **Proteomics** is the study of the entire protein set expressed by an organism. It is crucial for understanding diseases.

CLASSIFICATION OF STEM CELLS	
Pluripotent	<ul style="list-style-type: none"> • Able to differentiate into almost all cell types. • Eg: Cells derived from mesoderm, endoderm, ectoderm.
Totipotent	<ul style="list-style-type: none"> • Able to differentiate into any other type of cell. • Eg: Zygote formed at egg fertilization.
Multipotent	<ul style="list-style-type: none"> • Able to differentiate into a closely related family of cells. • Eg- Hematopoietic stem cells
Oligopotent	<ul style="list-style-type: none"> • Able to differentiate into a few different cell types • Eg- Lymphoid and myeloid stem cells
Unipotent	<ul style="list-style-type: none"> • Able to produce only their own types of cells. • Eg: Muscle stem cells

Stem cells are undifferentiated biological cells that can differentiate into specialized cells and can divide (through mitosis) to produce more stem cells.

- They have two defining properties-
- The ability to self generate
 - The ability to differentiate into other cells

- **Prions** are infectious **protein particles** that cause **neurodegenerative diseases** like **Creutzfeldt-Jakob disease**.
- **Autophagy** is a natural process in which a cell breaks down and recycles old, damaged, or unnecessary parts of itself.
- **Neuroplasticity** is the brain's ability to adapt by reorganizing **neural networks** or growing new neurons in response to learning and experience.
- **Horizontal Gene Transfer** in **Evolution** examines how **bacteria, archaea,** and even higher organisms exchange genes to adapt to extreme environments.

Microorganism	Cell Type	Cell Wall	Cell Membrane	Nucleus	Additional Features
Bacteria	Prokaryotic	Peptidoglycan	Phospholipid bilayer	Lack a true nucleus	Flagella, pili, capsule
Archaea	Prokaryotic	Pseudopeptidoglycan, S-layers. Absence of peptidoglycan	Ether linked	Lack a true nucleus	Unique membrane lipids
Protists	Eukaryotic	Cellulose in plant-like protists, silica in diatoms, and chitin in certain fungi-like protists.	Phospholipid bilayer	A true nucleus enclosed in a nuclear envelope.	Cilia, flagella, pseudopodia
Fungi	Eukaryotic	Chitin, a complex polysaccharide.	Phospholipid bilayer	A true nucleus enclosed in a nuclear envelope.	Hyphae, mycelium, spores
Algae	Eukaryotic	Cellulose, sometimes supplemented with additional polysaccharides like agar or carrageenan.	Phospholipid bilayer	A true nucleus enclosed in a nuclear envelope.	Chloroplasts, pigments, flagella
Viruses	Not classified	Lack cell walls; instead, they have a protein coat (capsid) surrounding their genetic material, which can be DNA or RNA.	Protein Coat	Do not have a true nucleus.	Genetic material (DNA or RNA)
Protozoa	Eukaryotic	Variable cell wall compositions, including cellulose, pellicle, or a proteinaceous layer, depending on the species.	Phospholipid bilayer	A true nucleus enclosed in a nuclear envelope.	Pseudopodia, cilia, flagella

- The force that opposes the motion of an object through a fluid is called **Drag**.
- The **Sun** appears red during **sunrise** and **sunset** because **blue light** is scattered out of sight.
- The principle of **conservation of mass** was proposed by **Antoine Lavoisier**.
- **Chlorophyll** absorbs light most effectively in the **red** and **blue wavelengths** but reflects **green light**, which is why leaves appear green.
- **Silver** has the highest **electrical conductivity** of any material, meaning it allows electricity to flow through it most easily.

- **Tungsten** is used in light bulb filaments because it has a **high melting point** and can withstand the heat generated when an electric current passes through it, producing light.
- **Violet light** has the shortest **wavelength** in the visible spectrum, approximately **380–450 nm**, compared to **red light**, which has the longest.
- Shorter wavelengths (**blue light**) are scattered more efficiently by air molecules, making the **sky** appear blue.
- The **Mohs scale** measures the **hardness** of materials based on their ability to scratch softer substances.
- **Energy is a scalar quantity** because it has only magnitude, not direction.
- **Nitrogen or argon gas is used in electric bulbs** to prevent the tungsten filament from oxidizing and burning out quickly.
- **Sound is a longitudinal wave**, meaning air molecules oscillate parallel to the direction of wave propagation.
- Electromagnetic waves (**light, radio, infrared**), which can travel through a vacuum.

DEFENCE & SECURITY

Exercises in News

Exercise	Details
Vajra Prahar	<p>Context</p> <ul style="list-style-type: none"> • The 15th edition of the India-US joint Special Forces Exercise Vajra Prahar was held in USA. <p>Details:</p> <ul style="list-style-type: none"> • Started in 2010, focusing on joint Special Forces operations in desert/semi-desert environments. <p>Objective</p> <ul style="list-style-type: none"> • Enhance military cooperation, interoperability and mutual exchange of special operations tactics. <p>India-US Military Exercises:</p> <ul style="list-style-type: none"> • Bilateral: Yudh Abhyas (Army), Cope India (Air Force), Tiger Triumph (Tri-Service), Sangam (Naval Special Forces). • Multilateral: Malabar (Navy), RIMPAC (Navy), Milan (Navy), La Perouse (Navy), Pitch Black (Air Force), Red Flag (Air Force).
Garud Shakti	<p>Context</p> <ul style="list-style-type: none"> • The 9th edition of the India-Indonesia Special Forces Exercise Garud Shakti was held in Jakarta, Indonesia. <p>Key Facts:</p> <ul style="list-style-type: none"> • Started in 2012 in India. Objective: Enhance cooperation, interoperability, and mutual understanding between the Special Forces of both armies. <p>Other details:</p> <ul style="list-style-type: none"> • Samudra Shakti and IND-INDO CORPAT are naval exercises between India and Indonesia. • No regular bilateral air exercises between the two countries.
VINBAX-2024	<p>Context</p> <ul style="list-style-type: none"> • The 5th Edition of the Vietnam-India Bilateral Army Exercise VINBAX-2024 began in Ambala, India. <p>Details:</p> <ul style="list-style-type: none"> • Initiated in 2018, the exercise alternates between India and Vietnam.

	<ul style="list-style-type: none"> Aim: Promote interoperability, collaboration and share best practices for Peace Keeping Operations under the United Nations. <p>Note: This edition marks the first Bi-Service level participation by Army and Air Force personnel from both countries.</p>
Antariksha Abhyas – 2024	<p>Context</p> <ul style="list-style-type: none"> India's Defence Space Agency (DSA) conducted Antariksha Abhyas – 2024 <p>Details</p> <ul style="list-style-type: none"> It is India's first space-focused military exercise. Agencies: ISRO, Defence Research and Development Organisation. Aim: Strengthen India's space defense capabilities. Assess vulnerabilities in space assets. Expected Outcomes: Enhanced coordination among defense, intelligence, and space agencies. Improved preparedness for potential space threats. Advancement in space-defense technologies for future.
Naseem-Al-Bahr	<p>Context</p> <ul style="list-style-type: none"> INS Trikanth and Dornier Maritime Patrol Aircraft, participated in Naseem-Al-Bahr. <p>About Naseem-Al-Bahr</p> <ul style="list-style-type: none"> Bilateral naval exercise between India and Oman, initiated in 1993. Oman is the first Gulf Cooperation Council country to conduct joint exercises with India.
India-Brazil-South Africa Maritime (IBSAMAR) VIII	<p>Context</p> <ul style="list-style-type: none"> Indian Navy's INS Talwar arrived in South Africa for IBSAMAR VIII. <p>About IBSAMAR VIII</p> <ul style="list-style-type: none"> A trilateral maritime exercise with the navies of India, Brazil and South Africa. Objective: Enhance interoperability and foster cohesion between the three navies, focusing on Blue Water Naval Warfare, including Surface and Anti-Air Warfare. INS Talwar: Commissioned in 2003, INS Talwar is a stealth frigate under Western Naval Command, Mumbai.
Exercise Malabar	<ul style="list-style-type: none"> Schedule: Held from 8–18 October 2024. Participants: India (host), Australia, Japan, and the United States. Began in 1992 as a bilateral drill (India-US), now a major multilateral exercise in the Indian Ocean and Indo-Pacific regions. Focus: Enhancing interoperability, special operations, surface, air, and anti-submarine warfare.
Sagar Kavach	<p>Context</p> <ul style="list-style-type: none"> Conducted by: Indian Coast Guard (ICG), October 16-17, 2024, across Gujarat, Daman & Diu, Goa, and Maharashtra. <p>Details</p> <ul style="list-style-type: none"> Participants: Indian Navy, BSF, NSG, IB, State Police, Marine Police, and port authorities. Assets Deployed: Ships, boats, drones, and aircraft for surveillance. Focus Areas: Address infiltration, piracy, smuggling, natural disasters and terrorist threats. ICG: Established in 1977, operates over 150 ships and 60+ aircraft, headquartered in New Delhi, ensuring India's maritime security.
Sea Vigil-24: Coastal Defence Exercise	<p>Context</p> <ul style="list-style-type: none"> Indian Navy conducted the fourth edition of Coastal Defence Exercise 'Sea Vigil-24'. <p>Details</p> <ul style="list-style-type: none"> Started in: 2018 Objective: Validate and enhance maritime security post-26/11. Focus Areas: Securing coastal assets and critical infrastructure. Aim: Raise awareness of maritime security in coastal communities.
AUSTRALIND	<p>Context</p> <ul style="list-style-type: none"> The 3rd edition of joint military Exercise AUSTRALIND began at Pune,

	<p>Maharashtra.</p> <p>Details</p> <ul style="list-style-type: none"> • Participants: Indian and Australian armies. • Frequency: Annual, alternates between India and Australia. • Aim: Enhance interoperability in joint sub-conventional operations. • Other India-Australia Military Exercises: • AUSINDEX: Biennial naval exercise, • PITCH BLACK: Biennial air combat exercise, • SINGAEX: Multilateral army exercise, • SLINEX: Annual naval exercise (with occasional Australian participation), • INDO-PACIFIC ENDEAVOR: Annual humanitarian and disaster relief exercise.
<p>Singapore India Maritime Bilateral Exercise (SIMBEX)</p>	<p>Context</p> <ul style="list-style-type: none"> • The 31st SIMBEX Exercise was held at Visakhapatnam. <p>About SIMBEX:</p> <ul style="list-style-type: none"> • Started as 'Exercise Lion King' in 1994. Participants: Indian Navy and Republic of Singapore Navy. Phases: Harbour Phase (Visakhapatnam) and Sea Phase (Bay of Bengal). • Purpose: Strengthen India-Singapore partnership, enhance interoperability, and improve maritime awareness.

OTHERS

Pinaka Multi-Barrel Rocket Launch System

Context

- France is evaluating India's **Pinaka Multi-Barrel Rocket Launch System** for its defense requirements.

Details:

- **Developed by:** Defence Research and Development Organisation.
- **Name Origin:** Named after "Pinaka," a mythical weapon used by Lord Shiva.
- **Range:** Capable of hitting targets up to **75 kilometers** and beyond.
- **Salvo Capability:** Fires **12 rockets in 44 seconds**, making it effective for overwhelming enemy defenses.
- **Exports:** Armenia is the first export customer; several countries have expressed interest.

DRDO's Long-Range Land Attack Cruise Missile

Context

- Maiden flight test successful.

Details:

- **Launch:** From mobile ground systems and frontline ships.
- **Features:** Advanced avionics, subsonic terrain-hugging flight for stealth.

- **Development:** By DRDO with Bharat Dynamics Limited (BDL) and Bharat Electronics Limited (BEL) as partners.
- **Approval:** Sanctioned by Defence Acquisition Council (DAC).

Defence Acquisition Council (DAC)

- **Formed:** In 2001 after the Kargil war.
- **Role:** Highest defense procurement body. It is chaired by **Defence Minister**.
- **Functions:** Approves acquisition proposals, offsets and long-term plans. Decides policies and capital acquisitions for the Army, Navy, Air Force, and Coast Guard.

Central Industrial Security Force (CISF)

Context

- The Union Home Ministry has approved the first all-women battalion of the Central Industrial Security Force (CISF), announced during the 53rd CISF Day function.

About CISF:

- **Established:** 1969, became an armed force in 1983. **Strength:** Over 1,88,000 personnel, 7% women.
- **Headquarters:** New Delhi, led by Director General (IPS officer).
- **Functions:** Provides security to nuclear facilities, airports, seaports, and monuments

(e.g., Taj Mahal), manages airport security, VIP security, and offers fire protection services.

- **Special Initiatives:** Expanded role post-2008 Mumbai attacks, including securing private establishments. The new all-women battalion will focus on VIP security and public-facing roles.

INS Aridhaman

Context

- India's fourth nuclear-powered ballistic missile submarine (SSBN), INS Aridhaman (S4) was launched.

Submarines in Indian Navy:

- **S1 (INS Chakra):** Leased nuclear submarine.

- **S2 (INS Arihant):** K-15 missile, 750 km range, on deep sea patrol.
- **S3 (INS Arighaat):** K-4 missile, 3,500 km range, commissioned in August 2024, on deep sea patrol.
- **S4 (INS Aridhaman):** K-4 missile, 3,500 km range, to be commissioned in 2025.
- **INS Aridhaman** is a stretched version of INS Arihant with **1,000 tons** more displacement, enhancing its **SLBM capacity** and **second-strike capability**.

Ballistic Missile Submarine (SSBN):

- A nuclear-powered submarine capable of launching **nuclear-armed missiles** (SLBMs), providing strategic deterrence with hard-to-detect capabilities. Major SSBN operators include **USA** and **Russia**.

IMPORTANT ARMY OPERATIONS (STATIC GK)

Names of Operation	Location	Notes
Operation Polo (1948)	Hyderabad	Indian armed forces ended the rule of the Nizam of Hyderabad and led to the incorporation of the princely state into the Indian Union.
Golden Temple Raid I (1955)	Punjab	To curb the Punjabi Suba Morcha.
Operation Vijay (1961)	Goa, Daman & Diu	Operation by the Military of India that led to the incorporation of Portuguese India (Goa, Daman, and Diu) into India.
Operation Steeplechase (1971)	Red Corridor	Combined operation against Naxalites.
Amalgamation of Sikkim (1975)	Sikkim	Indian Army disarmed and disbanded the Royal Guard of the Sikkimese King, after which Sikkim joined India as a State of India.
Operation Blue Star (1984)	Punjab	Carried out to remove religious leader Jarnail Singh Bhindranwale and his followers from the Harmandir Sahib complex in Amritsar.
Operation Shivalik (1985)	Karnataka, Madhya Pradesh, Maharashtra, Himachal Pradesh, Haryana, Uttar Pradesh (Terai regions)	To capture Sikh militant leaders outside the Punjab state.
Operation Black Thunder I (1986)	Punjab	Capture of the Golden Temple over suspected militants. 2 civilians and 1 soldier killed.
Operation Pacification (1986)	Punjab	
Operation Mand (1986)	Punjab	To capture or kill Avatar Singh Bramha, a Sikh militant. 1 helicopter lost, no militant detained.
Operation Bluebird (1987)	Manipur	Indian retaliation operation to the 1987 attacks on the Assam Rifles' outpost.
Golden Temple Raid II (1987)	Punjab	Rumor that militant Gurjit Singh was in the Golden Temple complex. Not found.
Operation Pawan	Sri Lanka	Operations by the Indian Peace Keeping Force to

(1987)		take control of Jaffna from the LTTE as part of the Indo-Sri Lankan Accord.
Operation Black Thunder II (1988)	Punjab	Capture of Golden Temple, 90+ militants surrendered, 2 soldiers killed, many militants escaped.
Operation Night Dominance (1990-1994)	Punjab	To control the landscape of Punjab at night.
Operation Rakshak I (1990)	Punjab	To curb Sikh militancy.
Operation Vadhi Pahar (1991)	Punjab	Indian Police and Army operation to kill militant Seetal Singh Mattewal.
Operation Election (1992)	Punjab	To ensure a secure election, though militants boycotted it; only 21% voted.
Golden Temple Raid III (1992)	Punjab	To stop commemoration of the assassins of General Shidhar Vaidya.
Operation Sarp Vinash (2003)	Jammu and Kashmir	Assault on largest system of insurgent hideouts in Jammu and Kashmir, over 60 militants killed.
Operation Black Tornado (2008)	Mumbai, Maharashtra	Against the 2008 Mumbai Terror Attacks.
Operation All Out (1990)	Jammu and Kashmir	Flushing out militants from the Kashmir region of Jammu and Kashmir state.
2015 Indian counter-insurgency operation (2015)	Myanmar	Indian Army conducted hot pursuit of Naga terror outfit NSCN-Khaplang along the India-Myanmar border.
Operation Devi Shakti (2021)	Punjab, Haryana, Delhi, Afghanistan	To help fleeing Hindus and Sikhs from Afghanistan.
Operation Ganga (2022)	Ukraine	To evacuate Indian citizens amidst the 2022 Russian invasion of Ukraine.

BILATERAL MILITARY EXERCISES

OF INDIAN ARMY, AIR FORCE AND NAVY

U.S.A.	Vajra Prahar (Army), YudhAbhyas (Army), Red Flag (Air Force), Tiger Triumph (Tri-service)	Mongolia	Nomadic Elephant (Army)
Australia	Austra Hind (Army), AUSINDEX (Navy)	Myanmar	Imbex (Army), IMCOR (Navy)
Bangladesh	Sampriti (Army), Corpat & Bongosagar (Navy)	Nepal	Surya Kiran
China	Hand In Hand, Chang Thang (Army)	Oman	AL NAGAH (Army), Naseem-al-Bahr (Navy), EASTERN BRIDGE (Air force)
France	Shakti (Army), Varuna (Navy), Garuda (Army)	Qatar	Za'ir-Al-Bahr (Roar of the sea)
Indonesia	Garuda Shakti (Army), IND-INDO CORPAT & IND-INDO BILAT & Samudra Shakti (Navy)	Russia	INDRA Tri-services (biennial)
Japan	SHINYUU Maitri (Air force), Dharma Guardian (Joint), Sahyog-Kajin (Coast Guard), JIMEX (Navy)	Seychelles	LAMITYE Army (biennial)
Kazakhstan	Prabal Dostyk (Army)	Singapore	SIMBEX (Navy)
Kyrgyzstan	Khanjar (Army)	Sri Lanka	MITRA SHAKTI (Army), SLINEX (Navy)
Maldives	Ekuberin (Army)	Thailand	MAITREE
Malaysia	Harimau Shakti (Army)	UK	AJEYA WARRIOR (Army), KONKAN (Navy), Indradhanush (Air force)
		UAE	DESERT EAGLE (Air force)
		Uzbekistan	Dustiik (Army)
		Vietnam	VINBAX (Army)

ECONOMICS

21st Livestock Census

Context

- **21st Livestock Census** will take place from **October 2024 to February 2025**.

Details

- It will count **16 key animal species** and **219 indigenous breeds**.
- Introduces **digitalization** in data collection using mobile apps, digital dashboards, and **GPS tagging**.
- **New data points:** Pastoral animals, pastoralists' socio-economic data, and livestock contributions.
- First-time inclusion of **gender roles** in livestock rearing (data on primary person involved).
- Includes **poultry species** such as chicken, duck, turkey, quail and emu.

Inflation

Context

- The Ministry of Statistics & Programme Implementation (MoSPI) reported a **6.2% retail inflation** in October 2024.

Details

- **Retail inflation (CPI)** rose to **6.2%** in October 2024.
- **Food inflation (CFPI)** surged to **10.87%**, the highest since August 2023.
- Inflation breached the **RBI's upper tolerance limit of 6%**.
- The **Monetary Policy Framework Agreement (MPFA)** aims to maintain inflation within **2%-6%**.

50th Foundation Day of Coal India Limited

Coal India Limited (CIL)

- **Foundation:** Established in **1975**, marking its **50th Foundation Day** in 2024.
- **Headquarters:** Located in **Kolkata**, operates under the **Ministry of Coal**.
- World's largest coal mining corporation, meeting **78% of India's coal production** needs.

The Livestock Census is a headcount of domesticated, poultry, and stray animals in India covering both rural and urban areas. The first Livestock Census in India was conducted in 1919-1920. Since then, it has been conducted once in every five years.

Coal Mining and Trade in India

- **Coal Mining:** Began in **1774** by M/s Sumner and Heatly, Raniganj Coalfield, Damodar River.
- **Nationalisation:** Coking coal mines (1971-72), non-coking coal mines (1973).
- **Imports (2023-24):** 249.06 MT; **Indonesia** (56.01%), **South Africa** (14.04%), **Russia** (8.69%), **Australia** (6.95%), **US** (second-largest coking coal supplier).
- **Exports (FY24):** Primarily to **Nepal** (73.2%), **Bangladesh** (0.245 MT), **Bhutan** (0.053 MT), others (0.032 MT).

Types of Coal

- **Anthracite:** 80-95% carbon, high calorific, burns with blue flame, found in **J&K**.
- **Bituminous:** 60-80% carbon, high calorific, low moisture, found in **Jharkhand, WB, Odisha, Chhattisgarh, MP**.
- **Lignite:** 40-55% carbon, high moisture, brown, smoky, found in **Rajasthan, Assam, TN**.
- **Peat:** <40% carbon, low calorific value.

IMF World Economic Outlook (WEO) 2024 Report By IMF

Context

- **India's Growth Projections:** 7% for **FY2024**, 6.5% for **FY2025**.
- **WEO Report:** Published biannually (April, October) by IMF. Analyzes global and country-specific economic trends, offers policy recommendations.

International Monetary Fund (IMF)

- **Purpose:** Promotes global economic growth, financial stability, international trade, and poverty reduction.
- **Established:** 1944, Bretton Woods Conference.
- **Key Reports:** World Economic Outlook (WEO), Global Financial Stability Report (GFSR).

Annual Survey of Industries Report 2022-23

Manufacturing Sector

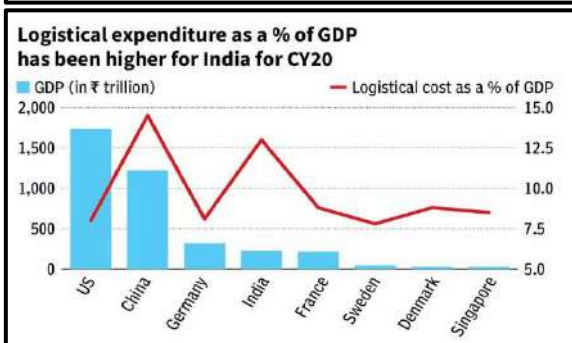
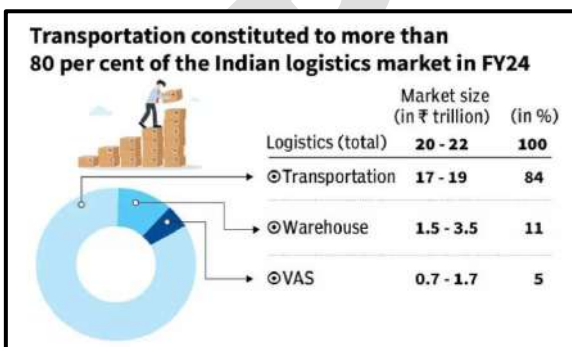
- **Employment:** 7.5% growth, 13 lakh jobs added
- **Gross Value Added and Output:** Gross Value Added up 7.3% (Rs 21.97 lakh crore), output up 21.5%
- **Key Drivers:** Basic metals, petroleum, food, chemicals, motor vehicles (58% of output)
- **Top States:** Tamil Nadu, Maharashtra, Gujarat, Uttar Pradesh, Karnataka
- **Factories:** 2.49 lakh to 2.53 lakh
- **Informal Sector:** 1.5% decline
- **Salaries:** Average salary up 6.3%, Rs 3.46 lakh

About Annual Survey of Industries

- **Purpose:** Key source of industrial statistics, conducted annually since 1960
- **Agency:** National Statistical Office, Ministry of Statistics and Programme Implementation
- **Scope:** Covers factories, bidi and cigar manufacturing, unregistered electricity units
- **Data Collection:** From selected factories under the Collection of Statistics Act

India's Logistics Sector: Key Statistics

- In 2023, the Indian logistics market was valued at **US\$282.3 billion**. Logistics cost is **13% of GDP**.
- Transportation segment currently dominates India's logistics market.



2015 Railway Reforms Expert Committee headed By Bibek Debroy (In News)

Objective

- Restructure Indian Railways for financial stability, competitiveness, and operational efficiency.

Key Recommendations:

Implemented:

- **Merger of Railway Budget:** Merged with the General Budget in 2017.
- **Chief Executive Officer (CEO) Role:** Railway Board Chairman renamed CEO in 2020 for faster decision-making.
- **Offloading Non-Remunerative Services:** Services like security (Railway Protection Force) and employee facilities were offloaded.
- **Rashtriya Rail Sanraksha Kosh (RRSK):** Rs. 1 lakh crore fund set up in 2017 for upgrading safety assets.

Not Accepted:

- **Liberalization:** New operators' entry still not approved.
- **Performance Assessment System:** "Under examination" by the Ministry of Railways.

70th-Year Celebrations of Engineering Export Promotion Council (EPEC) India

Context

- EPEC India, **established in 1955**, is a trade and investment promotion organization for the engineering sector, **sponsored by the Ministry of Commerce & Industry**.

Functions:

- Acts as an advisory body, contributing to policy development and linking the engineering industry with the government. Organizes buyer-seller meetings, overseas trade fairs, and India pavilions at international exhibitions. **Hosts the India Engineering Sourcing Show (IESS)** and supports the India Engineering Exhibition (INDEE). Publishes reports on international trends and opportunities.

CPI and IIP Data Release Timing Revised

Context

- Ministry of Statistics and Programme Implementation now releases **CPI** and **IIP** data at **4 PM** (earlier 5:30 PM) on the 12th of each month to allow more access time.

Consumer Price Index (CPI):

- Purpose:** Tracks retail price changes of goods/services consumed by households.
- Types:**
 - CPI for Industrial Workers (IW)
 - CPI for Agricultural Labourers (AL)
 - CPI for Rural Labourers (RL)
 - CPI (Rural/Urban/Combined)
- Compilation:**
 - IW, AL, RL: By Labour Bureau, Ministry of Labour.
 - Rural/Urban/Combined: By NSO, MoSPI.
- Base Year:** 2012; CPI-IW updated to 2016 by the Labour Ministry.

Index of Industrial Production (IIP):

- Purpose:** Measures growth rates in manufacturing, mining, and energy sectors.
- Base Year:** Updated to 2011-12 from 2004-05 in 2017.
- Components:**
 - Broad sectors: Mining, Manufacturing, Electricity.
 - Use-based sectors: Primary, Capital, Intermediate Goods, Consumer Durables.
- Core Industries (40.27% of IIP):** Electricity, Steel, Refinery Products, Crude Oil, Coal, Natural Gas, Cement, Fertilizers.
- Publishing Authority:** Central Statistical Organisation (CSO).
 - Index of 8 Core Industries by Office of the Economic Adviser, DPIIT, Ministry of Commerce and Industry.

Land Ports Authority of India

Context

- Home Minister inaugurated a Passenger Terminal Building, **Maitri Dwar** at ICP Petrapole, West Bengal.

About LPAI:

- Established:** Under the **Land Ports Authority of India Act, 2010**, operational since 2012.
- Functions under the **Ministry of Home Affairs** (Department of Border Management).

- Recommended by the Committee of Secretaries, 2003.
- Develops **Integrated Check Posts (ICPs)** to secure, streamline cross-border movement.

Integrated Check Posts (ICPs):

- Facilities:** Warehouses, container depots, cargo complexes, hotels, restrooms.
- Significance:** Ensures ease of trade, travel; critical for bilateral trade.

Key ICPs:

- Petrapole, West Bengal:** Largest, busiest land port in South Asia, handles **70% of India-Bangladesh** land trade.
- Other operational ICPs:** Attari, Punjab (Pakistan); Agartala, Tripura (Bangladesh); Raxaul, Bihar (Nepal); Moreh, Manipur (Myanmar); Sutarkandi, Assam (Bangladesh); Srimantapur, Tripura (Bangladesh) Dera Baba Nanak, Punjab: For Kartarpur Sahib pilgrims (Pakistan).

Under Construction:

- Dawki, Meghalaya (Bangladesh):** Rupaidiha, UP (Nepal): Will be the **third land port** for India-Nepal border; Sunauli, UP (Nepal)

India's Fertilizer Sector

Context

- Wars in Ukraine, Gaza have raised fertiliser costs, increasing India's import dependency.

Fertilisers by Nutrient Supply

- Primary Fertilisers:** Supply **Nitrogen (N), Phosphorus (P), Potassium (K)**; include Urea (Nitrogenous), DAP (Phosphatic), Muriate of Potash (Potassic).
- Secondary Fertilisers:** Calcium, Magnesium, Sulphur, Zinc, etc.
- Micronutrients:** Iron, Zinc, Boron, Chloride, etc.

India's Fertiliser Scenario

- Production Rank:** 3rd largest globally, 2nd in Nitrogen, 3rd in Phosphates.
- Import Dependency:**
 - Urea:** 20% imported.
 - Di-Ammonium Phosphate:** 50-60% imported.
 - MOP:** 100% imported, no domestic production.

Major Import Markets (2022, OECD)

- Top Suppliers:** Russia (\$2.73B), Saudi Arabia (\$2.46B), China (\$2.1B), Morocco (\$1.74B), Oman (\$1.26B).

- **Fastest-Growing:** Russia, Saudi Arabia, Morocco.

Digital Public Infrastructure

Context

- India's G20 presidency highlighted **Digital Public Infrastructure (DPI)** as a key driver of development.

Digital Public Infrastructure (DPI)

- DPI enables economic opportunities and efficient service delivery by connecting people, data, and capital, similar to how roads and railways connect people and goods.

Key Components

- **Digital Identification Systems (DIS):** Aadhaar for unique identification.
- **Payment Infrastructure:** Unified Payments Interface (UPI) for secure transactions.
- **Data Exchange Solutions:** Standardized, secure frameworks for data sharing.
- **Data Infrastructure:** Systems like Digilocker for data privacy and sovereignty.
- **Cybersecurity Frameworks:** Protects digital assets (e.g., Information Security Management System (ISMS)).
- **Broadband and Connectivity:** Ensures access to high-speed internet.

Categories of DPI

- **Foundational DPI:** Initiatives like Aadhaar, UPI, Data Empowerment and Protection Architecture (DEPA).
- **Sectoral DPI:** Specialized services like the Ayushman Bharat Digital Mission for healthcare.

Information Security Management System (ISMS)

- Manages sensitive data, minimizes risks, and ensures continuity during security breaches.

Middle-Income Trap

Context

- The **World Development Report 2024** by the **World Bank** highlights the issue of the "middle - income trap."

What is the Middle-Income Trap?

- It refers to a situation where a country's GDP per capita reaches a middle-income level but fails to transition to a high-income status. The term was introduced by the **World Bank** in 2007. As of 2024, **108 countries** are trapped, including **Brazil, China, South Africa**. These countries account for **40%** of global GDP.

Reserve Bank Climate Risk Information System (RB-CRIS)

Context

- The **Reserve Bank** proposes to establish **RB-CRIS**, a data repository.

About Reserve Bank Climate Risk Information System:

- The **RB-CRIS** aims to improve climate risk assessments by providing standardized, high-quality data.

Key Components:

- **Web-based directory:** Lists data sources (e.g., meteorological, geospatial), publicly accessible on the **RBI** website. **Data portal:** Contains processed data in standardized formats, accessible in phases to **regulated entities**.



IASOYAN
PREDICT THE UNPREDICTABLE
An initiative of **APTI PLUS**

In detail

Minimum Support Price (MSP) is a "minimum price" for any crop that the government considers as remunerative for farmers and hence deserving of "support". It is also the price that government agencies pay whenever they procure the particular crop.

The Centre currently fixes MSPs for 23 farm commodities based on recommendations of Commission for Agricultural Costs and Prices (CACP) – 7 cereals (paddy, wheat, maize, bajra, jowar, ragi and barley), 5 pulses (chana, arhar/tur, urad, moong, masur), 7 oilseeds (rapeseed-mustard, groundnut, soyabean, sunflower, sesamum, safflower, nigerseed) and cotton, sugarcane, copra and rawjute.

CACP considers the following costs:

1. A2: covers all cash and in kind expenses incurred by farmers on seeds, fertilisers, chemicals, hired labour, fuel etc.
2. A2 + FL: Actual costs plus an imputed value of unpaid family labour.
3. C2: includes 'A2 + FL' along with revenue foregone on owned land (rent) and fixed capital assets (interest).

SPORTS

India's Bid to host 2036 Olympics

Context

- India has submitted a 'Letter of Intent' to the International Olympic Committee for hosting the 2036 Olympic and Paralympic Games.

Key Facts

- India would become the 4th Asian country to host the Olympics, after China, South Korea and Japan.
- Paris hosted the latest Olympics; Los Angeles (2028) and Brisbane (2032) are next.

About the Olympic Games

- A global sporting event held every four years, alternating between Summer and Winter Games.
- Origin:** Began in ancient Greece (8th century BCE) in Olympia in honor of Zeus.
- First modern Olympics:** Held in Athens, Greece, in 1896.
- Motto:** "Citius, Altius, Fortius" (Latin for "Faster, Higher, Stronger").
- Rings:** Five rings symbolize the unity of world's continents - Africa, the Americas, Asia, Europe, and Oceania.
- Flame:** Lit in Olympia, Greece, and carried in a relay to the host city, symbolizing continuity and peace.

Dwayne Bravo retires, joins KKR as Mentor

Context

- Dwayne Bravo, West Indies cricketer, retires from all forms of cricket after a 21-year career.

Details

- Retired from International Cricket in 2021 and played his final match in 2024 CPL.
- Key member of West Indies' ICC Champions Trophy (2004) and T20 World Cups (2012, 2016) victories.
- Won four IPL titles with CSK (2011, 2018, 2021) and as a coach in 2023. Joins KKR as a mentor.

International Shooting Sport Federation (ISSF) World Cup Final 2024

Context

- India ranked 9th in the ISSF World Cup Final 2024 (Rifle/Pistol/Shotgun) held in New Delhi.
- China topped with 8 medals.

Indian Winners

- Sonam Maskar:** Silver, Women's 10m Air Rifle.
- Vivaan Kapoor:** Silver, Men's Trap (Shotgun).
- Akhil Sheoran:** Bronze, 50m Rifle 3 Positions (Men).
- Anantjeet Singh Naruka:** Bronze, Men's Skeet.

International Shooting Sport Federation (ISSF)

- The ISSF, governing body for Olympic shooting events, regulates the sport, organizes major tournaments (World Cup, Championships), & manages Olympic qualification. **President:** Luciano Rossi (since 2022).
- Founded:** 1907 (as International Shooting Union, renamed in 1998). **Headquarters:** Munich, Germany.
- Key Events:** Olympic Games, World Championships, World Cup (Senior & Junior), Regional Championships (e.g., European, Pan-American). **Note:** ISSF events are the only platforms for world record attempts.

South Asian Football Federation (SAFF) U-17 Championship 2024

Context

- India's U-17 football team (Blue Colts) won the 2024 SAFF U-17 Championship by defeating Bangladesh 2-0 in the final at Changlimithang Stadium, Bhutan. **Tournament Dates:** 20-30 September 2024 (9th edition).

Awards:

- Player of the Tournament:** Mohammed Arbash (India);
- Goalkeeper of the Tournament:** Aheibam Suraj Singh (India);
- Top Scorer:** Sujan Dangol (Nepal) - 4 goals;

- Fair Play Trophy: Bhutan.

South Asian Football Federation (SAFF)

- SAFF is a regional football association of South Asian nations, a subsidiary of Asian Football Confederation.
- **Founded:** 1997 with 6 members (Bangladesh, India, Maldives, Nepal, Pakistan, Sri Lanka). **Expanded to 7** in 2000 with Bhutan. **Afghanistan** joined in 2005 but left in 2015 to join Central Asian Football Association.
- **Current President:** Kazi Salahuddin (Bangladesh) since 2016. **Headquarters:** Dhaka, Bangladesh.



Dipa Karmakar: India's First Female Olympic Gymnast

Context

- Dipa Karmakar, India's first female Olympic gymnast, announced her retirement.

Achievements:

- **2014 Commonwealth Games:** Bronze medal, first Indian female gymnast to win a medal.
- **2016 Rio Olympics:** 4th place in the vault, first Indian female gymnast to compete in the Olympics.

Awards:

- **Padma Shri (Sports):** 2017, **Arjuna Award (Gymnastics):** 2015, **Major Dhyan Chand Khel Ratna Award:** 2016.



Chirag Chikkara clinches Gold at U23 World Wrestling Championships

Context

- **Chirag Chikkara** won gold in men's freestyle 57kg, defeating **Abdymalik Karachov** (Kyrgyzstan) 4-3.

Previous Achievements:

- **Ravi Kumar Dahiya:** Silver in 2018 U23 World Championships.
- **Abhishek Dhaka:** Bronze in 2018.



U23 World Wrestling Championships

- The **U23 World Wrestling Championships** are the **Wrestling World Championship** for **athletes** under 23 years old and is organized by **United World Wrestling**. The **tournament** began in 2017.

Bangladesh tour of India Test Series 2024: India wins 2-Match Series

Series Overview:

- The Bangladesh cricket team, led by **Najmul Hossain Shanto**, toured India in **September-October 2024** for a series of 2 Test matches and 3 T20I matches.
- India won the 2-match Test series **2-0**, under the leadership of **Rohit Sharma**.

Milestones:

- **India's 180th Test Win**, placing them 4th in the list of most Test wins; Australia (414), England (397), and West Indies (183) ahead.
- **R Ashwin** became the Indian bowler with the most Test wickets in Asia, surpassing **Anil Kumble's** 419 wickets.
- **Virat Kohli** became the fastest to reach **27,000 international runs**, surpassing **Sachin Tendulkar**.

2024-25 Irani Cup: Mumbai wins title for 15th time

Match Overview:

- **Mumbai Cricket team**, captained by **Ajinkya Rahane**, defeated **Rest of India**, captained by
- **Ruturaj Gaikwad**, based on the first-innings lead to win the **2024-25 Irani Cup**.

About the Irani Cup:

- The **Irani Cup** (also known as **IDFC First Bank Irani Trophy**) is an **annual First-Class Cricket Match** between the **Ranji Trophy champions** and a **Rest of India team**. It began in **1960** and became a regular fixture from **1962-63**, named after **Zal R. Irani**, a key BCCI figure.

24th National Para-Swimming Championship

Context

- **Karnataka** emerged as the overall champion with **392 points** in this Para-Swimming Championship.

Event Details:

- Organized by **Paralympic Committee of India (PCI)** and **Goa Paralympic Association**.
- **Champions:** **Men's Senior Champion:** Mohammed Aasim (Kerala), **Women's Senior Champion:** Sharanya (Karnataka), **Men's Junior Champion:** Ravi Karthik (Andhra Pradesh), **Women's Junior Champion:** Sae Pujair (Maharashtra).

Paralympic Committee of India (PCI)

- The **PCI** selects athletes for the **Paralympic Games** and manages Indian teams at international events.
- Founded in **1992** it aims to promote sports for the differently-abled and train athletes for **State, National, and international meets**. PCI is affiliated with **International Paralympic Committee** and **Asian Paralympic Committee**. It was granted **public authority status** under the **RTI Act of 2005**.

APPOINTMENTS

Posts	Details
51st Chief Justice of India	<p>Context</p> <ul style="list-style-type: none"> • Justice Sanjiv Khanna was sworn in as the 51st Chief Justice of India, succeeding Justice D.Y. Chandrachud. His term ends on May 13, 2025. <p>Key Facts on CJI Appointment:</p> <ul style="list-style-type: none"> • No constitutional procedure exists for CJI appointment. • Article 124(1): Establishes the Supreme Court with a Chief Justice. • Article 124(2): Judges, including the CJI, are appointed by the President based on convention. • Landmark Judgments by Justice Sanjiv Khanna: • Upheld EVM sanctity, scrapped electoral bonds scheme, supported Article 370 abrogation. Granted interim bail to ex-Delhi CM Arvind Kejriwal.
Prime Minister of Japan	<p>Context</p> <ul style="list-style-type: none"> • Shigeru Ishiba has been re-elected as Prime Minister of Japan. <p>Details</p> <ul style="list-style-type: none"> • He was elected by Japanese Diet. The Japanese Parliament is referred to as Diet.
New Comptroller and Auditor General (CAG) of India	<p>Context</p> <ul style="list-style-type: none"> • K Sanjay Murthy has been appointed as the next CAG of India. <p>Details</p> <ul style="list-style-type: none"> • He has been appointed under Article 148(1) of the Constitution, succeeding Girish Chandra Murmu. He will serve a term of six years or until the age of 65, whichever is earlier.
New Secretary General of	<p>Context</p> <ul style="list-style-type: none"> • Valdecy Urquiza, Brazilian Federal Police Commissioner, has been elected as the

Interpol	<p>new Secretary General of Interpol at its 92nd General Assembly in Glasgow, Scotland.</p> <p>Interpol</p> <ul style="list-style-type: none"> • International Criminal Police Organization (Interpol), headquartered in Lyon, France, was founded in 1923, has 195 member countries, and aims to facilitate international police cooperation and combat transnational crime.
CEO-Professional Golf Tour of India	<p>Context</p> <ul style="list-style-type: none"> • Amandeep Johl will assume the role of Chief Executive Officer (CEO) of the Professional Golf Tour of India (PGTI) in January 2025, succeeding Uttam Singh Mundy. <p>PGTI</p> <ul style="list-style-type: none"> • Established in 2006 as the successor to the Indian PGA Golf Tour (1997–2006), the Tata Steel Professional Golf Tour of India is a premier men's golf tour in India and has been a member of the International Federation of PGA Tours since 2009.
Tourism Advisor for Thailand	<ul style="list-style-type: none"> • Sonu Sood, renowned actor and philanthropist, has been appointed as the Brand Ambassador and Honorary Tourism Advisor for Thailand.
President-FICCI	<ul style="list-style-type: none"> • Harsha Vardhan Agarwal has been announced as the President-Elect of the Federation of Indian Chambers of Commerce and Industry (FICCI). <p>FICCI:</p> <ul style="list-style-type: none"> • Established in 1927, FICCI is India's largest and oldest apex business organization, headquartered in New Delhi, with a historic role in the country's independence and industrialization.
MCX MD AND CEO	<p>News</p> <ul style="list-style-type: none"> • Praveena Rai has assumed office as the Chief Executive Officer (CEO) and Managing Director (MD) of the Multi Commodity Exchange of India (MCX) for a five-year term. <p>MCX:</p> <ul style="list-style-type: none"> • Established in 2003 and headquartered in Mumbai, MCX is India's largest commodity derivatives exchange, offering contracts in metals, energy, and agricultural products, and playing a key role in the country's financial markets.
Secretary General of the World Agriculture Forum (WAF)	<p>News</p> <ul style="list-style-type: none"> • Dr. Jacqueline d'Arros Hughes, outgoing Director General of ICRISAT, has been appointed as the Secretary General of the World Agriculture Forum (WAF). <p>WAF</p> <ul style="list-style-type: none"> • WAF, a global platform, brings together governments, agribusinesses, experts and development institutions to foster agricultural development through policy advocacy, trade facilitation, and technology-driven solutions, aiming for a resilient, food-secure future.
WAFBoard Member Nomination	<ul style="list-style-type: none"> • Suresh Prabhu, former Union Minister and Rajya Sabha member, has been nominated to the World Agriculture Forum (WAF) Board.
New Defence Secretary	<ul style="list-style-type: none"> • Rajesh Kumar Singh, a 1989-batch IAS officer, has assumed charge as the Defence Secretary at South Block, New Delhi, succeeding Giridhar Aramane.
Chairman of the Airports Authority of India (AAI)	<p>News</p> <ul style="list-style-type: none"> • Vipin Kumar, a 1996-batch IAS officer, has officially assumed charge as the Chairman of the Airports Authority of India (AAI). Prior to this, he served as the Additional Secretary in the Department of School Education & Literacy, Ministry of Education, Government of India. <p>AAI</p> <ul style="list-style-type: none"> • Established in 1995, AAI manages 133 airports, including operational & non-operational ones, and provides air navigation services across 2.8 million square nautical miles.
MD of NAFED	<p>News</p> <ul style="list-style-type: none"> • Deepak Agarwal has been appointed as the new Managing Director (MD) of the

	<p>National Agriculture Cooperative Marketing Federation of India Ltd (NAFED). National Agriculture Cooperative Marketing Federation of India Ltd(NAFED)</p> <ul style="list-style-type: none"> Established in 1958, NAFED works as a cooperative marketing. Operating under the Ministry of Agriculture and Farmers' Welfare, NAFED focuses on price stabilization for key agricultural commodities.
Director General of ICRISAT	<p>News</p> <ul style="list-style-type: none"> Dr. Himanshu Pathak has been appointed Director General-designate of ICRISAT. <p>International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)</p> <ul style="list-style-type: none"> Established in 1972, ICRISAT focuses on improving dryland farming and tackling issues like hunger, malnutrition, and poverty in Asia and Sub-Saharan Africa. ICRISAT has made significant innovations, such as mapping the groundnut genome and introducing biofortified crops. ICRISAT has offices in Africa and is recognized under the UN (Privileges and Immunities) Act, 1947.
DG of the Indian Coast Guard	<p>News</p> <ul style="list-style-type: none"> S. Paramesh has officially assumed charge as the Director General (DG) of the Indian Coast Guard at its headquarters in New Delhi. <p>ICG</p> <ul style="list-style-type: none"> Established in 1977, operates over 150 ships and 60+ aircraft, headquartered in New Delhi, ensuring India's maritime security.
President of the Indian Newspaper Society (INS)	<p>News</p> <ul style="list-style-type: none"> MV Shreyams Kumar has been elected as the new President of Indian Newspaper Society. <p>INS</p> <ul style="list-style-type: none"> Founded in 1939, INS is the central organization representing the Press of India, responsible for authenticating circulation figures & advocating for the freedom of the press. HQ: Rafi Marg, New Delhi, it comprises owners, proprietors and publishers of print media.

IMPORTANT DAYS

Date	Important Day/News
October 15	International Day of Rural Women
October 16	World Food Day - Focus on global food security
October 17	International Day for the Eradication of Poverty
October 24	United Nations Day - Commemorates the founding of the UN in 1945.
October 27	World Day for Audiovisual Heritage
October 31	National Unity Day - Commemorates Sardar Patel's birth anniversary
November 5	World Cities Day- was established in 2013 by the United Nations General Assembly.
November 8	World Radiology Day: Honours Wilhelm Conrad Röntgen who discovered X-rays in 1895.
November 9	Uttarakhand Foundation Day- 2024 marked the 24th anniversary.
November 10	World Immunization Day: To highlight the critical role vaccination for public health.
November 11	National Education Day. Declared in 2008 to honor the birth anniversary of Maulana Abul Kalam Azad, the first education minister of independent India.
November 11	Armistice Day - Commemorates the end of WWI
November 12	World Pneumonia Day - Awareness for child pneumonia
November 14	Children's Day (India) - Marks Pandit Nehru's birth anniversary
November 15	World Diabetes Day - Awareness on diabetes prevention
November 15	Janjatiya Gaurav Divas: marks the birth anniversary of Birsa Munda
November 16	International Day for Tolerance
November 16	National Press Day commemorates establishment of Press Council of India in 1966.
Third Sunday	World Day of Remembrance for Road Traffic Victims (WDR).

of November	
9-15 November	International Week of Science and Peace. First observed in 1986 during the International Year of Peace.
14th to 20th November	All India Cooperative Week to recognize the efforts and contributions of cooperative societies in India. 2024 marks the 71st edition.
November 17	International Student's Day
November 17	National Epilepsy Day
November 17	World Day of Remembrance for Road Traffic Victims
November 20	Universal Children's Day
November 20	World Chronic Obstructive Pulmonary Disease Day

AWARDS

Grand Commander of the Order of Niger

Context

- Prime Minister Shri Narendra Modi was conferred the award, "Grand Commander of the Order of Niger".

Details

- PM Modi is the second foreign leader after Queen Elizabeth II (1969) to receive the Honour, recognizing his global leadership and India's transformative role.

The Fable- 38th Leeds International Film Festival

Context

- Manoj Bajpayee's The Fable won Best Film at 38th Leeds Int. Film Festival.

Details

- Directed by Raam Reddy, the film won the Constellation Feature Film Competition for groundbreaking cinema. The Leeds International Film Festival (LIFF), founded in 1987, is the largest film festival in England outside London, held annually in November at various venues in Leeds.

Satyajit Ray Lifetime Achievement Award

Context

- Veteran Australian filmmaker Phillip Noyce, was honored with the prestigious Satyajit Ray Lifetime Achievement Award at the 55th International Film Festival of India (IFFI).

Details

- IFFI: The award, first instituted in 1999 at the 30th IFFI, was renamed to IFFI - Satyajit Ray Lifetime Achievement Award in 2021, in

recognition of Satyajit Ray's centenary and contribution to global cinema.

IUCN's Conservation Leadership Award

Context

- Bibhab Kumar Talukdar awarded the Harry Messel Award for Conservation Leadership by the Species Survival Commission (SSC) of IUCN in Abu Dhabi.

Details

- Recognition for his leadership in Asian rhino conservation, especially through Indian Rhino Vision 2020 and Asian Rhino States meetings. Founder of Aaranyak (1989), a leading biodiversity organization in Assam. Talukdar was involved in Millennium Ecosystem Assessment for the Eastern Himalayas (2002-2004).
- International Union for Conservation of Nature: Founded in 1948, headquartered in Switzerland, focuses on biodiversity conservation, sustainable resource management, and ecosystem restoration. IUCN programs: Species Survival Commission (SSC): Focuses on conservation of threatened species; World Commission on Protected Areas (WCPA): Promotes protected areas worldwide, Nature-Based Solutions: Asks to use nature to solve global challenges.

Global Anti-Racism Championship Award 2024

Context

- Urmila Chaudhary (Nepal) awarded the Global Anti-Racism Championship Award 2024.

Details

- GARC Award (est. 2023) honours leaders combating systemic racism and discrimination.

Nomination by U.S. Embassies/Consulates worldwide.

- Award Categories: 9 categories including districts, villages, urban bodies, institutions, and civil society organizations.

5th National Water Awards 2023

Context

- Organized by the Dept. of Water Resources, River Development, and Ganga Rejuvenation under the Ministry of Jal Shakti.

Details

- The Award recognizes efforts in water conservation and management across India.
- Best State: Odisha (1st), Uttar Pradesh (2nd), Gujarat & Puducherry (joint 3rd).

Booker Prize, 2024

Context

- The Booker Prize for this year was awarded to Samantha Harvey for her book 'Orbital'.

Details

- The novel follows a single day in the lives of six astronauts from different countries aboard the International Space Station, experiencing 16 sunrises and sunsets within 24 hours.

About Padma Awards



About:

- The Padma Awards are one of the highest civilian honours of India announced annually on the eve of Republic Day.
- The Padma Awards are conferred on the recommendations made by the Padma Awards Committee, which is constituted by the Prime Minister every year.
- The nomination process is open to the public. Even self-nomination can be made.

What are the categories in the award?

- Padma Awards, which were instituted in the year 1954, is announced every year on the occasion of Republic Day except for brief interruption(s) during the years 1978 and 1979 and 1993 to 1997.
- The award is given in three categories, namely,
 - Padma Vibhushan for exceptional and distinguished service;
 - Padma Bhushan for distinguished service of a high order; and
 - Padma Shri for distinguished service.

In how many categories it is given?

- The award seeks to recognize works of distinction and is given for distinguished and exceptional achievements/service in all fields of activities/disciplines. An illustrative list of the fields is as under:
 - Art, Social work, Public Affairs, Science & Engineering, Trade & Industry, Medicine, Civil Service, Sports, other of Human Rights, Wild Life protection/conservation etc.

Can it be conferred posthumously?

- The award is normally not conferred posthumously. However, in highly deserving cases, the Government could consider giving an award posthumously.

Who decides the nomination?

- All nominations received for Padma Awards are placed before the Padma Awards Committee, which is constituted by the Prime Minister every year.
- The Padma Awards Committee is headed by the Cabinet Secretary and includes Home Secretary, Secretary to the President and four to six eminent persons as members.
- The recommendations of the committee are submitted to the Prime Minister and the President of India for approval.

What are the conditions to confer the award?

- A higher category of Padma award can be conferred on a person only where a period of at least five years has elapsed since conferment of the earlier Padma award. However, in highly deserving cases, a relaxation can be made by the Awards Committee.

Who presents the award?

- The awards are presented by the President of India usually in the month of March/April every year where The total number of awards to be given in a year (excluding posthumous awards and to NRI/foreigners/OCs) should not be more than 120.
- The award does not amount to a title and cannot be used as a suffix or prefix to the awardees' name

BOOKS & AUTHORS [CURRENT]

BOOK	AUTHOR
Why Bharat Matters	Dr. S. Jaishankar
'Maa-Mother'	Law and Justice Minister Arjun Ram Meghwal
"Friends – India's Closest Strategic 'Strategic Conundrums: Reshaping India's Foreign Policy,'	Rajiv Sikri
'We Also Make Policy'	Subhash Chandra Garg

Chronicle of an Hour and a Half	Saharu Nusaiba Kannanari
The Nutmeg's Curse: Parables for a Planet in Crisis	Amitav Ghosh
'Orbital'	Samantha Harvey
The Mahabharata; The Bhagvata Gita for Millenials; The Holy Vedas; Indian Railways: The Weaving of a National Tapestry; Ideas for India: Faster, Higher, Stronger; Sarama and Her Children: The Dog in Indian Myth; INKED IN INDIA: Fountain Pens and a Story of Make and Unmake; DEVI FOR MILLENNIALS	Books written by Bibek Debroy (Indian economist who recently passed away)
War	Investigative journalist Bob Woodward
India That is Bharat: An Introduction to the Constitutional Debates	P. Rajeeve



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BOOKS & AUTHORS [STATIC GK]

Book	Author	Publication Year
The Life Divine	Arvind Ghosh	1944
Savitri	Arvind Ghosh	1940
New Lamps for Old	Arvind Ghosh	1893
Bhavani Mandir	Arvind Ghosh	1905
White	Rabindranath Tagore	1910
Ghar Baire	Rabindranath Tagore	1916
India: A Search	Jawaharlal Nehru	1946
Essays on Indian Economics	Mahadev Govind Ranade	1906
Rise of the Maratha Power	Mahadev Govind Ranade	1900
Durgesh Nandini	Bankim Chandra Chatterjee	1865

Bang Darshan	Bankim Chandra Chatterjee	1872
India in Transition	M. N. Rai	1922
Economic History of British India	R. C. Dutt	1893
Indian Muslim	Hunter	1871
Gandevata	Tarashankar Bandyopadhyay	1978
Philosophy of the Bomb	Bhagwati Charan Bohra	1929
Why Socialism	Jayaprakash Narayan	1936
Gandhi vs Lenin	S.A. Dange	1921
Problem of the East	Lord Curzon	1894
Blue Mirror	Deenbandhu Mitra	1860
India Today	R. P. Dutt	1940
Thakurmar Jhuli	D. M. Mazumdar	1907
Indian Unrest	Valentine Shirol	1910
Oriental and Western	Swami Vivekananda	1938
Essay Series	Vishnukrishna Chiplunkar	1881
Gokarunanidhi	Swami Dayanand Saraswati	1881
Letters from Russia	Rabindranath Tagore	1960
Wither India	Rabindranath Tagore	1933
Soviet Asia	Jawaharlal Nehru	1949
Pather Dabi	Abanindranath Tagore	1926
History of Hindu Chemistry	P. C. Rai	1902
Peasantry of Bengal	R. C. Dutt	-

STATIC GK

Largest air force station in Asia

- Hindon Air Force Station near Hindon River in Uttar Pradesh.

District in West Bengal with highest literacy rate. (2011 census)

- Purba Medinipur with highest literacy rate at 87.66%.

Largest known star in Milky Way Galaxy

- UY Scuti

First Chief Minister of West Bengal after its formation as a state in 1947

- Prafulla Chandra Ghosh

Author of "The Hungry Tide", a novel set in the Sundarbans

- Amitav Ghosh

First Governor of West Bengal after its formation as a state

- Chakravarthi Rajagopalachari

Event associated with the famous "Watergate Scandal"

- Nixon's resignations

Author of the book "The Alchemist"

- Paulo Coelho

"Pearl of Africa"

- Winston Churchill called UGANDA 'the Pearl of Africa' for its beauty, abundant wildlife and diversity.

"One Belt One Road" Initiative

- Spearheaded by China

'City of Canals'

- Venice

Great Barrier Reef

- Australia

'Blue Mosque'

- Istanbul

'Christ the Redeemer' statue

- Mount Corcovado, Rio de Janeiro, Brazil.

Suez Canal connects

- Mediterranean Sea to the Red Sea

'Stonehenge' Monument

- Prehistoric megalithic structure on Salisbury Plain in Wiltshire, England

Apical Rooted Cutting (ARC) Technology

- Low-cost, low-tech method for producing potato seed tubers.

Matir Shristi Scheme Launched in 2020

- Aims to make fallow land commercially useful in 6 districts through horticulture, fishery & animal husbandry.

Districts—Bankura, West Midnapore, Jhargram, West Burdwan, Purulia, Birbhum.

The second highest peak of West Bengal

- Phalut - a 3,600-meter peak in the Singalila Ridge, part of the Himalayas, located at the border of West Bengal, Sikkim, and Nepal, within Singalila National Park.

Linguistic Minorities in Bengal

- People speaking six languages viz. **Hindi, Urdu, Nepali, Oriya, Santhali, Telegu and Gurumukhi** have been declared as Linguistic Minorities in the State.

Aikyashree

- West Bengal State Scholarships for Minority Students.

Largest desert in the world

- Antarctic Desert

Largest coffee-producing state in India

- Karnataka- accounted for 72.5% of the country's coffee production in 2023:

Natural Heritage Animal of India

- Elephant

Largest freshwater lake in India

- Wular Lake

Committee that recommended the Panchayati Raj System in India

- Balwant Rai Mehta Committee

First Indian woman to win an Olympic medal

- Karnam Malleswari

Largest producer of coal in India

- Jharkhand

Author of the book *Poverty and Un-British Rule in India*

- Dadabhai Naoroji

Biological magnification refers to

- Accumulation of pollutants in the food chain

Eutrophication in water bodies is mainly caused by:

- Excessive nutrients

Bergmann's Rule

- Larger body sizes in colder climates; smaller in warmer climates.

Allen's Rule

- Animals in cold climates have shorter appendages; warm climates, longer appendages.

Allee Effect

- A phenomenon where a population's growth rate decreases as the population size gets smaller.

Radioactive element is used in smoke detectors

- Americium-241

Purpose of the Marginal Standing Facility (MSF)

- To provide overnight borrowing facility to banks in case of liquidity shortage.

Beta cells (β -cells)

- Specialized endocrine cells located within the pancreatic islets of Langerhans responsible for the production and release of insulin and amylin.

Coronagraph

- A specialized instrument designed to block out the light of the sun so that researchers can glimpse the

burning star's hot, thin, outermost layer, called the corona.

Mangrove cover in India

- As per the Indian State Forest Report 2021, India's mangrove cover is 4,992 sq km (0.15% of the total area), with West Bengal (42.45%), Gujarat (23.66%), and A&N Islands (12.39%) having the highest cover percentages.

The monomer of natural rubber is

- Isoprene

Isotope of Uranium is used in nuclear reactors

- U-235

In a galvanic cell, the anode is the site of

- Oxidation

Enzyme responsible for unwinding of DNA during replication

- Helicase

Function of Barr bodies

- To regulate the number of X-linked gene products that are transcribed in females.

First atomic power plant in India

- Tarapur Atomic Power station in Tarapur, Maharashtra.

India's first privately built rocket

- Vikram-S launched in 2022 by Skyroot Aerospace from Sriharikota.

Only active volcano in India

- Barren Island

Longest national highway in India

- Stretches from Srinagar in the north to Kanyakumari in the south.

First Buddhist council in India

- Rajgir, Bihar (around 483 BCE, after the death of Lord Buddha). in During the reign of the ruler Ajatashatru. President Mahakasyapa.

Headquarters of the International Solar Alliance

- Gurugram (Haryana)

Largest Marine National Park in India

- Marine National Park in Gulf of Kutch

First recipients of the Bharat Ratna

- C. Rajagopalachari, Sarvepalli Radhakrishnan and C. V. Ramanin 1954.

World's largest artificial lake and reservoir by volume.

- Lake Kariba along the border between Zambia & Zimbabwe.

High Altitude Sickness (AMS):

- A condition where the body struggles to acclimatize to altitudes above 8,000 feet, leading to hypoxia (shortage of oxygen in the body's tissues) due to reduced air pressure and oxygen levels.

Hallmark Unique Identification (HUID) Number

- Six-digit alphanumeric code is mandatory only for gold and silver jewellery, excluding Kundan, Polki, and Jadau.

World's highest arch bridge and rail bridge

- Chenab Rail Bridge in Jammu and Kashmir at a

height of 1,178 ft above the river.

Mercantilism

- Adam Smith's Economic policy that is designed to maximize the exports and minimize the imports for an economy.

Radio Spectrum

- Electromagnetic spectrum that extends from frequencies below 1 Hz up to around 3000 GHz or 3 THz.

Most abundant metal in the Earth's crust

- Aluminium making up around 8.2% of it.

XaaS

- XaaS is the delivery of everything or anything as a service. XaaS examples: **SaaS** (Google Apps, Office 365), **PaaS** (cloud tools), **IaaS** (IT infrastructure on subscription).

Nurdles

- Nurdles are small plastic pellets made from polyethylene, polypropylene, polystyrene, and polyvinyl chloride, used to create various plastic products.

India's Auto Component Industry Surplus

- India's auto components sector has always imported more than it exported, leading to a trade deficit. For the first time ever, the industry saw a significant \$700 million trade surplus in FY22.

Electrophoresis

- A laboratory technique used to separate DNA, RNA or protein molecules based on

their size and electrical charge.

Epigenetics

- A field of study focused on changes in DNA that do not involve alterations to the underlying sequence.

Metaverse

- A real-time, three-dimensional world that is accessible through Virtual Reality (VR) head-mounted display.

Most recent state formed in India

- Telangana became the 29th state on June 2, 2014. It was created by reorganizing the state of Andhra Pradesh.

Cotton Gin

- A machine that separates cotton fibers from cotton seeds. It was invented by Eli Whitney in 1793 and patented in 1794.

BrahMos

- World's fastest and most formidable anti-ship cruise missile.

Fastest supercomputer in India

- As of 2023, it is **AIRAWAT**, which is ranked 75th in the world. Speed: **13,170 teraflops** (Rpeak) Location: Centre for Development of Advanced Computing (C-DAC) in Pune.

Bakelite

- A **thermosetting plastic** made from phenol formaldehyde resin; used to manufacture electrical switches, food items, toys, jewelry, guns, insulators, and computer discs, among other things.

Sarin (GB), Soman (GD), Tabun (GA)

- **Examples of Nerve Agents:**
Highly poisonous chemicals that work by preventing the nervous system from working properly.

Smallest tectonic plate on Earth

- Juan de Fuca plate located in the Pacific Northwest, beneath the North American plate.

Cell-free DNA

- DNA that circulates freely in the bloodstream or other body fluids, outside of cells.

Cryogenics

- Study of the production and behavior of materials at extremely low temperatures (below -150 degree centigrade) to lift and place the heavier objects in space.

String of Pearls

- A geopolitical theory that refers to China's efforts to build a network of military and commercial bases and ports in the Indian Ocean region.

First hydroelectric power plant in India

- Sidrapong Hydroelectric Power Station, installed in 1897 in Darjeeling, West Bengal.

First Indian Swimmer to cross the English Channel

- Mihir Sen was the first Indian to swim across the English Channel, from Dover to Calais, in 1958.

Organisms with more than 1 Eye

- Jumping Spider, Chiton, Horseshoe Crab, Fruitfly,

Scallops, Box Jellyfish, Spiders, Starfish.

Entity responsible for coordinating the Census of India

- Registrar General of India

State bird of West Bengal

- White-breasted kingfisher (*Halcyon smyrnensis*)

Insectivorous plants

- Venus flytrap, Pitcher plant, Sundew, Butterwort, Bladderwort, Cobra lily, Trapdoor spiderwort, Nepenthes, Drosera, Sarracenia.

State with highest number of GI-tagged products in the country

- As of March 31, 2024, Uttar Pradesh has the most Geographical Indication (GI) tags in India with 69 products.

First woman to win a Nobel Prize in India

- Mother Teresa

First city in India to establish a municipal corporation

- Madras

Most recent Commonwealth Games

- The 22nd edition of the Commonwealth Games was held in Birmingham, England in 2022.

World's longest river cruise

- MV Ganga Vilas inaugurated in 2023

World's first malaria vaccine program for children launched by

- Cameroon in 2024

First Indian to win the Ramon Magsaysay Award

- Vinoba Bhave in the year 1958 under the category of Community Leadership.

Bharat Gaurav Scheme

- In this, the Indian Railway Catering and Tourism Corporation (IRCTC) promotes tourism in India through rail-based tourism.

First country to recognize Bitcoin as legal tender

- El Salvador took this pioneering step in 2021

First Indian state to enact the 'Right to Health Act 2022

- Rajasthan

Fastest player to score 10,000 runs in One Day Internationals

- Virat Kohli in just 213 matches and 205 innings

Fastest century in One-Day International (ODI) cricket

- 149 runs off 31 balls, scored by AB de Villiers of South Africa against the West Indies in Johannesburg in 2015.

First Indian cricketer to cross 2000 T20I runs

- Mithali Raj

Part of the human brain that controls the voluntary movements of the body

- Cerebellum

pH value of pure water at 25°C

- 7

Most stable isotope of hydrogen

- Tritium (³H) is the most stable radioisotope of hydrogen, meaning it's the least radioactive of all hydrogen's radioactive

isotopes. With a half-life of 12.32 years it is produced naturally by cosmic rays in the upper atmosphere and through nuclear weapons tests.

Most reactive element in the periodic table

- Fluorine

Network Solid

- A network solid is a solid where all the atoms are covalently bonded in a continuous network. Diamond, graphite, and silicon are non-metals that exist as network solids.

Most electronegative element on the periodic table

- Fluorine (F) with an electronegativity value of 3.98. This means that fluorine attracts electrons better than any other element.

DANCES OF BENGAL



West Bengal

Kathi, Gambhira, Dhali, Jatra, Baul, Marasia, Mahal, Keertan.



CURRENT ONE LINERS

Amchang Wildlife Sanctuary

- Located in the eastern fringe of Guwahati city, Assam.

Wind Energy in India

- World's 4th-largest in wind energy, with 47 GW contributing to its total 200 GW renewable energy capacity.

Microplastics

- Small pieces of plastic that are less than 5 millimeters in size.

Horn of Africa

- Composed of Somalia, Djibouti, Ethiopia and Eritrea.

X-Rays

- Discovered by **Wilhelm Conrad Roentgen**, have wavelengths of 0.01 to 10 nanometers and frequencies between 3×10^{16} Hz and 3×10^{19} Hz, earning Roentgen the Nobel Prize in Physics in 1901.

Balfour Declaration (1917)

- A British statement supporting the establishment of a "national home for the Jewish people" in Palestine, then part of the Ottoman Empire.

'Bob' Khathing Museum

- Inaugurated at Tawang in Arunachal Pradesh.

"Gibraltar of the East"

- Raigad Fort is referred to as the "Gibraltar of the East", due to its strategic location in the

Raigad district of Maharashtra and it was captured by Shivaji Maharaj in 1656 from the Mores dynasty & was crowned as Chhatrapati in this Fort.

Coral Triangle

- Spanning across Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands and Timor-Leste it is a biodiversity hotspot with 76% of the world's reef-building corals.

Stratospheric Aerosol Injection (SAI)

- A proposed solar geoengineering method to reduce global warming by injecting aerosols into the stratosphere, creating a cooling effect through global dimming and increased albedo.

Smart Insulin

- Smart Insulin (NNC2215) drug activates in response to high blood sugar. It uses a **glucoside molecule** to remain inactive during low blood sugar, & activates when glucose levels rise, helping **regulate blood sugar** automatically.

Carbon credits

- Permits allowing the emission of a specific amount of carbon dioxide or other greenhouse gases, typically one ton per credit. They are also called carbon allowances.

Coeliac Disease

- A condition in which the immune system reacts severely to gluten.

Dissolved Organic Carbon (DOC)

- Organic carbon that can pass through a filter with a pore size of 0.22–0.7 micrometers.

International Energy Agency (IEA)

- Established in 1974, autonomous organization under Organisation for Economic Cooperation and Development (OECD); headquarter is located in Paris, France; publishes World Energy Outlook Report, Oil Market Report, Net Zero Roadmap.

Bidar Fort built by

- Sultan Ala-Ud Din Bahman

GST on ethanol

- 5%

Nobel Peace Prize 2024

- To **Nihon Hidankyo**, an organisation representing Japanese atomic bomb survivors.

The monomer of natural rubber is

- Isoprene

Isotope of Uranium is used in nuclear reactors

- U-235

In a galvanic cell, the anode is the site of

- Oxidation

India's largest trading partner

- China is India's largest trading partner, with \$118.4 billion in two-way trade in 2023-24.

India the biggest exporter of

- Petroleum products as of 2023 worth USD 15.5 billion.

Lagrange Points

- Here, the pull of gravity from the Earth cancels out the pull of gravity from the Sun.

Graphene

- Allotrope of carbon; world's thinnest, strongest and most conductive material of both electricity and heat; 200 times stronger than steel but six times lighter.

Intergovernmental Panel on Climate Change (IPCC)

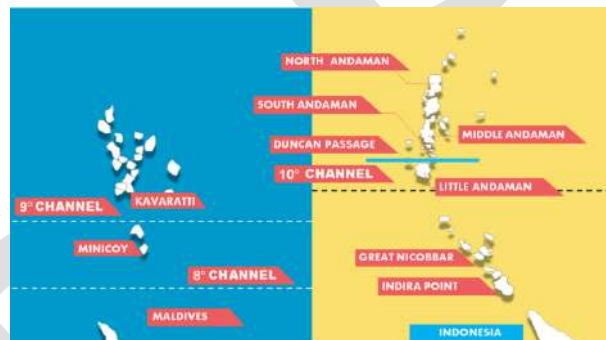
- Established by World Meteorological Organization and the United Nations Environment Programme in 1988; secretariat in Geneva, Switzerland.

Huntington's Disease

- Huntington's disease is a rare inherited disorder associated with the progressive loss of brain and muscle function.

Eight Degree Channel

- Separates the Lakshadweep Islands (north) from the Maldives (south).



New member of Shanghai Cooperation Organization (SCO)

- In 2024 Belarus became the 10th member of Shanghai Cooperation Organization (SCO).

National Space Day

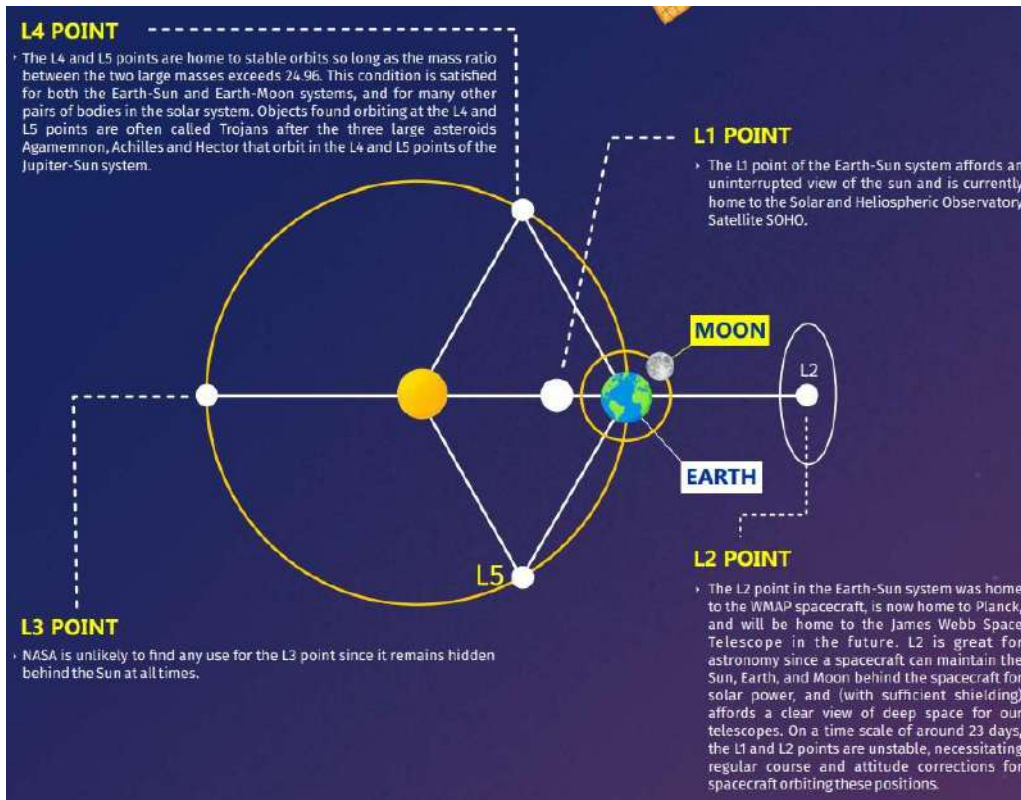
- On 23rd Aug 2023, ISRO landed Chandrayaan-3's lander and rover on Moon. Theme of the first National Space Day celebrated in 2024 Touching Lives while Touching the Moon: India's Space Saga.

Biochar

- Lightweight black residue, consisting of carbon and ashes, that remains after the pyrolysis of biomass, and it is a form of charcoal.

Largest producer of sponge iron

- India since 2023 (20% of the world's total). Sponge iron/ Direct Reduced Iron, is metallic iron produced by reducing iron ore with a reducing gas.



PRACTICE QUESTIONS [CURRENT]

- Q1.** Sanjay Murthy has been appointed as the next Comptroller and Auditor General (CAG) of India. Under which constitutional article is the CAG of India appointed?
- Article 148
 - Article 149
 - Article 150
 - Article 151
- Q2.** Naseem-Al-Bahr is a bilateral naval exercise between India and which Gulf Cooperation Council (GCC) country?
- Saudi Arabia
 - Qatar
 - Oman
 - United Arab Emirates
- Q3.** The 2024 Adaptation Gap Report was released by which organization?
- World Bank
 - United Nations Environment Programme (UNEP)
 - United Nations Framework Convention on Climate Change (UNFCCC)
 - Intergovernmental Panel on Climate Change (IPCC)
- Q4.** The 4B Movement is primarily focused on rejecting which of the following?
- Corporate Influence
 - Patriarchy and misogyny
 - Social media influence
 - Economic inequality
- Q5.** Who is the author of the book "Devi for Millennials"?
- Ramesh Menon
 - Bibek Debroy
 - Devdutt Pattanaik
 - Amish Tripathi
- Q6.** Which of the following is NOT a part of the Core Industries of the Index of Industrial Production (IIP)?
- Fertilizers
 - Natural Gas
 - Textiles
 - Cement
- Q7.** Which of the following is the busiest land port in South Asia?
- Petrapole-Benapole Land Port
 - Attari-Wagah Border
 - Raxaul-Birgunj Border

d) Moreh-Tamu Border

d) 2005

Q8. Who is the current Director General (DG) of the Indian Coast Guard?

- a) K.N. Satyanand
- b) S. Paramesh
- c) Rajendra Singh
- d) Bimal Desai

Q12. Which of the following countries is NOT currently a member of the South Asian Football Federation (SAFF)?

- a) Bhutan
- b) Sri Lanka
- c) Nepal
- d) Myanmar

Q9. Which of the following dates is observed as United Nations Day?

- a) October 1
- b) October 10
- c) October 24
- d) November 5

Q13. At which of the following Lagrange points does the pull of gravity from the Earth cancel out the pull of gravity from the Sun?

- a) L1
- b) L2
- c) L3
- d) L4

Q10. Which committee proposed the creation of the Monetary Policy Committee (MPC) of the Reserve Bank of India?

- a) Narasimham Committee
- b) Urjit Patel Committee
- c) Kelkar Committee
- d) Raghuram Rajan Committee

Q14. Which is India's first privately built rocket?

- a) GSLV Mk III
- b) Polar Satellite Launch Vehicle (PSLV)
- c) Vikram-S
- d) Chandrayaan-1

Q11. When was the Defence Acquisition Council (DAC) formed?

- a) 1999
- b) 2001
- c) 2003

Q15. Sarin (GB), Soman (GD), and Tabun (GA) are examples of which of the following?

- a) Biological agents
- b) Nerve agents
- c) Radiological agents
- d) Chemical warfare agents

PRACTICE QUESTIONS [STATIC]

Q1. The Deocha-Pachami coal block, one of the largest coal blocks in India and the world, is located in which coalfield?

- a) Singrauli Coalfield
- b) Raniganj Coalfield
- c) Jharia Coalfield
- d) Birbhum Coalfield

Q4. Operation Pawan, launched in 1987, was associated with which of the following?

- a) Liberation of Goa
- b) Kargil War
- c) Peacekeeping operations in Sri Lanka
- d) Counter-insurgency in the Northeast

Q2. Lakshisaal, Danaguri, Kabirajsaal and Karpurkranti are varieties of what?

- a) Wheat
- b) Rice
- c) Barley
- d) Millets

Q5. Which of the following is the world's largest artificial lake and reservoir by volume?

- a) Lake Volta
- b) Lake Kariba
- c) Lake Nasser
- d) Lake Mead

Q3. In which year was the Railway Budget merged with the General Budget?

- a) 2015
- b) 2016
- c) 2017
- d) 2018

Q6. The book India: A Search was authored by:

- a) Mahatma Gandhi
- b) Subhas Chandra Bose
- c) Jawaharlal Nehru
- d) Rabindranath Tagore

Q7. What is a Cotton Gin?

- a) A machine that separates cotton fibres from cotton seeds
- b) A tool used for weaving cotton fabric
- c) A method of growing cotton
- d) A machine used for spinning cotton into yarn

Q8. The principle of conservation of mass was proposed by:

- a) Dmitri Mendeleev
- b) Antoine Lavoisier
- c) John Dalton
- d) Marie Curie

Q9. The edible outer layer of grains like wheat, millets, and rye, rich in dietary fiber and bioactive substances, is called:

- a) Endosperm
- b) Germ
- c) Bran
- d) Husk

Q10. The monomer of natural rubber is:

- a) Butadiene
- b) Isoprene
- c) Styrene
- d) Ethylene

Q11. Which of the following is a characteristic of heavy metals?

- a) Atomic number greater than 10 and atomic density over 2 g/cm^3
- b) Atomic number greater than 20 and atomic density over 5 g/cm^3
- c) Atomic number greater than 30 and atomic density over 3 g/cm^3

- d) Atomic number greater than 50 and atomic density over 4 g/cm^3

Q12. Beta cells (β -cells) are responsible for the production of which of the following?

- a) Insulin and amylin
- b) Glucagon and adrenaline
- c) Thyroid hormones
- d) Cortisol and testosterone

Q13. What does the Piezoelectric Effect convert?

- a) Electricity into mechanical pressure
- b) Mechanical pressure into electricity
- c) Sound waves into electricity
- d) Heat into mechanical energy

Q14. What is India's largest and oldest apex business organization?

- a) Federation of Indian Chambers of Commerce and Industry (FICCI)
- b) Associated Chambers of Commerce and Industry of India (ASSOCHAM)
- c) Confederation of Indian Industry (CII)
- d) National Association of Software and Service Companies (NASSCOM)

Q15. The Ten Degree Channel separates which of the following islands in the Bay of Bengal?

- a) Andaman Islands from the Nicobar Islands
- b) Andaman Islands from the Sumatra Islands
- c) Nicobar Islands from the Malacca Strait
- d) Lakshadweep Islands from the Maldives

ANSWERS [PRACTICE SET – CURRENT]

1. Answer: a)

Explanation

- The **Comptroller and Auditor General (CAG)** of India is appointed under **Article 148** of the **Indian Constitution**.
- This article outlines the appointment, tenure, and powers of the CAG, who is responsible for auditing government accounts and ensuring transparency in the use of public funds.

2. Answer: c)

Explanation

- **Naseem-Al-Bahr** is a bilateral naval exercise between **India and Oman**, initiated in **1993**. Oman was the first **GCC country** to conduct joint exercises with India, strengthening defense cooperation between the two nations.

3. Answer: b)

Explanation

- The **Adaptation Gap Report 2024**, titled "**Come Hell and High Water**," was released by the **United Nations Environment Programme (UNEP)**. It assesses global progress in **climate adaptation** and highlights the gap between current efforts and the necessary actions to address climate risks.

4. Answer: b)

Explanation

- Post-Trump's victory, the **4B Movement** gained momentum in the US, protesting patriarchy and misogyny by rejecting sex and marriage with men. Originating in South Korea after the **MeToo** and **Escape the Corset** movements, the **4B** (Four Nos) stands for **No dating, sex, marriage, or children with men**. It has since expanded into

6B4T, which includes rejecting misogynistic firms, fandom culture, and male-gaze beauty standards.

5. Answer: b)

Explanation:

- Bibek Debroy, an eminent Indian economist who recently passed away, was also a prolific author and translator. He contributed significantly to Indian literature and mythology with works such as The Mahabharata, The Bhagavad Gita for Millennials, The Holy Vedas, Indian Railways: The Weaving of a National Tapestry, Ideas for India: Faster, Higher, Stronger, Sarma and Her Children: The Dog in Indian Myth, INKED IN INDIA: Fountain Pens and a Story of Make and Unmake, and Devi for Millennials.

6. Answer: c)

Explanation:

- The eight Core Industries contributing to 40.27% of the IIP are Electricity, Steel, Refinery Products, Crude Oil, Coal, Natural Gas, Cement, and Fertilizers. Textiles is not included in this list. These industries are critical for the industrial performance and economic growth of the country.

7. Answer: a)

Explanation:

- **Petrapole, West Bengal** is the largest and busiest land port in South Asia, handling about **70% of India-Bangladesh land trade**.

8. Answer: b)

Explanation:

- S. Paramesh has officially assumed charge as the Director General (DG) of the Indian Coast Guard, headquartered in New Delhi. The Indian Coast Guard, established in 1977, ensures India's maritime security with over 150 ships and 60+ aircraft.

9. Answer: c)

Explanation:

- United Nations Day is observed on October 24 to commemorate the founding of the United Nations in 1945. It highlights the achievements of the UN and promotes its goals of peace, security, and cooperation among nations.

ANSWERS [PRACTICE SET – STATIC]

1. Answer: d)

Explanation:

- The Deocha-Pachami coal block is located in the Birbhum Coalfield in West Bengal. It is the largest coal block in India and one of the largest in the world.

2. Answer: b)

Explanation:

- Lakshisaal, Danaguri, Kabirajsaal, and Karpurkranti are rare rice varieties known for their distinct taste, texture, and cultivation. These varieties are conserved through community participation by the West Bengal Biodiversity Board (WBBB).

3. Answer: c)

Explanation:

- The Railway Budget was merged with the General Budget in 2017, marking the end of the practice that had been in place since 1924.

10. Answer: b)

Explanation:

- The Urjit Patel Committee proposed the creation of the Monetary Policy Committee (MPC) to frame the monetary policy of India. This committee's recommendations led to the formation of the MPC, which started functioning in October 2016.

11. Answer: b)

Explanation:

- The Defence Acquisition Council (DAC) was formed in 2001 after the Kargil war to streamline and expedite the process of acquiring defense equipment and technology for the Indian armed forces.

12. Answer: d)

Explanation:

- The South Asian Football Federation (SAFF) was founded in 1997 with 6 members: Bangladesh, India, Maldives, Nepal, Pakistan, and Sri Lanka. Bhutan joined in 2000, bringing the total to 7 members. Myanmar has never been a member of the South Asian Football Federation, as it is part of Southeast Asia, not South Asia. Therefore, Myanmar is not a member of SAFF.

13. Answer: a)

Explanation:

- At the L1 point, the gravitational forces of the Earth and the Sun cancel out, allowing a stable position for objects like satellites. It lies on the line connecting the Earth and the Sun.

14. Answer: c)

Explanation:

- Vikram-S is India's first privately built rocket, launched by Skyroot Aerospace in 2022. It marked a significant step for India's private space industry.

15. Answer: b)

Explanation:

- Sarin (GB), Soman (GD), and Tabun (GA) are examples of nerve agents. These are highly poisonous chemicals used in chemical warfare that disrupt the functioning of the nervous system by inhibiting acetylcholinesterase, leading to a build up of acetylcholine and causing paralysis or death.

4. Answer: c)

Explanation:

- Operation Pawan was conducted in 1987 by the Indian Peace Keeping Force (IPKF) in Sri Lanka. It aimed to take control of Jaffna from the Liberation Tigers of Tamil Eelam (LTTE) as part of the Indo-Sri Lankan Accord.

5. Answer: b)

Explanation:

- Lake Kariba, located along the border between Zambia and Zimbabwe, is the world's largest artificial lake and reservoir by volume. It has a capacity of approximately 185 cubic kilometers and was created in 1958 with the construction of the Kariba Dam on the Zambezi River.

6. Answer: c)

Explanation:

- The book India: A Search was authored by Jawaharlal Nehru in 1946. It encapsulates his vision for an independent India and critiques colonial rule.

7. Answer: a)

Explanation:

- Cotton Gin was invented by Eli Whitney in 1793. It is a machine that separates cotton fibers from cotton seeds very quickly.

8. Answer: b)

Explanation:

- Antoine Lavoisier, a French chemist, proposed the principle of conservation of mass, which states that mass is neither created nor destroyed in a chemical reaction.

9. Answer: c)

Explanation:

- Bran is the outer layer of grains, rich in fiber and bioactive substances. Removal of bran reduces protein, fiber, fat, and minerals, while increasing carbohydrates and amylose.

10. Answer: b)

Explanation:

- The monomer of natural rubber is Isoprene, which polymerizes to form polyisoprene, the main component of natural rubber.

11. Answer: b)

Explanation:

- Heavy metals are naturally occurring elements with an atomic number greater than 20 and an atomic density over 5 g/cm^3 . They exhibit metal-like characteristics and include elements such as arsenic, cadmium, chromium, copper, lead, mercury, and uranium.

12. Answer: a)

Explanation:

- Beta cells (β -cells), located within the pancreatic islets of Langerhans, are responsible for producing and releasing insulin and amylin, which play vital roles in regulating blood glucose levels.

13. Answer: b)

Explanation:

- The Piezoelectric Effect refers to the phenomenon where certain materials generate an electric charge when subjected to mechanical pressure or stress. This effect is commonly used in devices like microphones and lighters, where mechanical vibrations or pressure changes are converted into electrical signals or sparks.

14. Answer: a)

Explanation:

- The Federation of Indian Chambers of Commerce and Industry (FICCI) is India's largest and oldest apex business organization, established in 1927. It represents a wide spectrum of industries and serves as a platform for businesses to engage with the government, policymakers and other stakeholders.

15. Answer: a)

Explanation:

- The Ten Degree Channel separates the Andaman Islands from the Nicobar Islands in the Bay of Bengal, located between latitudes 10°N .

WBCS PRELIMS MOCK TEST

TEST ID - 02

- Q1. Choose the sentence with the correct use of "their," "there," or "they're":**
- A) Their going to the party tonight.
 - B) They're going to the party tonight.
 - C) There going to the party tonight.
 - D) They're going to the party tonight.
- Q2. Which sentence is correctly punctuated?**
- A) I want to go to the movies however, I have too much work.
 - B) I want to go to the movies; however, I have too much work.
 - C) I want to go to the movies, however I have too much work.
 - D) I want to go to the movies however; I have too much work.
- Q3. Identify the sentence with the correct use of the word "effect" or "affect":**
- A) The weather will effect our plans for the picnic.
 - B) The weather will affect our plans for the picnic.
 - C) The weather will affect on our plans for the picnic.
 - D) The weather will have an effect on our plans for the picnic.
- Q4. Choose the sentence with the correct use of "its" or "it's":**
- A) Its a beautiful day outside.
 - B) It's a beautiful day outside.
 - C) Its been raining all morning.
 - D) It's been raining all morning.
- Q5. Which of the following sentences is grammatically correct?**
- A) Each of the students are required to submit their assignments by Friday.
 - B) Each of the students is required to submit his or her assignment by Friday.
 - C) Each of the students is required to submit their assignments by Friday.
 - D) Each of the students are required to submit his or her assignments by Friday.
- Q6. Identify the sentence with the correct use of "too" or "to":**
- A) I want too go to the store.
 - B) I want to go too the store.
 - C) I want to go to the store too.
 - D) I want to go to the store to.
- Q7. Choose the sentence with the correct use of "who" or "whom":**
- A) Who did you give the book to?
 - B) Whom did you give the book to?
 - C) He is the consultant who we contacted for advice.
 - D) He is the consultant whom can answer your question.
- Q8. This organization has chapters in Wilmington, Delaware, Hanover, New Hampshire, and New York, New York. (Choose the correct alternative of the bold words in the sentence)**
- A) Wilmington; Delaware, Hanover; New Hampshire, and New York; New York.
 - B) Wilmington, Delaware; Hanover, New Hampshire; and New York, New York.
 - C) Wilmington, Delaware, Hanover, New Hampshire, and New York New York.
 - D) No error
- Q9. The phrase 'To water down' means**
- A) Downpour
 - B) Flow of water
 - C) Restrict
 - D) Strengthen
- Q10. Add a suitable prefix to form the opposite of the given word: NOBLE**
- A) Disnoble
 - B) Misnoble
 - C) Unnoble
 - D) Ignoble
- Q11. James was acquitted ____ the charge ____ theft. (Fill in the blanks with appropriate preposition)**
- A) from, of
 - B) to, of
 - C) of, of
 - D) by, of
- Q12. The word litter is also used to describe a group of**
- A) Deer

- B) Wolves
- C) Elephants
- D) Puppies

Q13. Choose the correct homophone of the given word: FAIR

- A) Unfair
- B) Fare
- C) Fair Play
- D) Fairly

Q14. Ranjan is writing a letter (Turn into a passive voice)

- A) A letter was written by Ranjan
- B) A letter was being written by Ranjan
- C) A letter has been written by Ranjan
- D) A letter is being written by Ranjan

Q15. The ten prisoners were all blaming each other (Use correct reciprocal pronoun)

- A) one another
- B) together
- C) in between
- D) No correction required

Q16. Among the four alternatives, mark the incorrect spelling

- A) Clique
- B) Performanse
- C) Eccentric
- D) Embarrassment

Q17. Ravi is the person in the multinational company who has the job with little responsibility but high salary (Replace the bold part with a single word from the given alternatives)

- A) Honorary
- B) Sinecure
- C) Volunteer
- D) Samaritan

Q18. Anubhav wrote a ho-hum script for the webseries. Here ho-hum means

- A) interesting
- B) boring
- C) thrilling
- D) pensive

Q19. The sage has the ability to look within at one's mental or emotional state (Choose suitable word for the part written in bold)

- A) Hypnotism
- B) Examination
- C) Introspection

- D) Scrutiny

Q20. Choose the right option to rewrite the sentence: The patient had died before the doctor

- A) had come
- B) was coming
- C) have come
- D) came

Q21. Deep said, I go to the library daily. (Change the mode of narration)

- A) Deep told that I went to the library daily.
- B) Deep said that he goes to the library daily.
- C) Deep said that he had gone to the library daily
- D) Deep said that he went to the library daily.

Q22. Shipra noticed a lady's purse lying open on the railway platform.

(Choose a correct alternative of the italicized and bold word in the sentence)

- A) Parasol
- B) Reticule
- C) Wallet
- D) Vanity bag

Q23. The feminine gender of 'SWAN' is called

- A) Vixen
- B) Pen
- C) Cob
- D) Mare

Q24. The author was fined a sum of fifty thousand rupees by the court of law for practicing taking someone's works and passing them off as his own. This is called

- A) Intellectual fraud
- B) Idea theft
- C) Photocopying
- D) Plagiarism

Q25. Stuart agrees _____ his brother on the decision to settle in Sussex. (Fill in the blank)

- A) to
- B) with
- C) by
- D) for

Q26. India is the largest producer of:

- A) Cotton
- B) Rice
- C) Jute
- D) Tea

Q27. As per 2011 Census data, the overall sex-ratio in the country is:

- A) 930
- B) 933
- C) 940
- D) 943

Q28. Which physiographic region of West Bengal is predominantly made of old igneous rock granite and gneiss of the Archaean era?

- A) The Northern Mountain Region
- B) The Western Plateau Fringe
- C) The Plains
- D) The Eastern Mountain Region

Q29. Which of the following States is surrounded by Bangladesh from three sides?

- A) Arunachal Pradesh
- B) Nagaland
- C) Assam
- D) Tripura

Q30. Which river is the most important in North Bengal and is the third longest river in West Bengal?

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

Q31. Who was the leader of the Bardoli Peasant Satyagraha?

- A) Vallabhbhai Patel
- B) Baldev Singh
- C) TT Krishnamachari
- D) Abdul Kalam Azad

Q32. Which physiographic region of West Bengal is predominantly hilly and composed of sedimentary and metamorphic rocks?

- A) The Western Plateau Fringe
- B) The Plains
- C) The Northern Mountain Region
- D) The Eastern Mountain Region

Q33. Which of the following is the first private train of India?

- A) Gatimaan Express
- B) Shatabdi Express
- C) Vande Bharat Express
- D) Tejas Express

Q34. Poorvi Dhauliganga is a tributary of which of the following rivers?

- A) Alaknanda
- B) Sharda river
- C) Kali river
- D) Gomti river

Q35. Which river divides the mountain ranges of the Northern Mountain Region into two parts?

- A) Teesta
- B) Jaldhaka
- C) Raidhak
- D) Damodar

Q36. The National Human Rights Commission (NHRC) is a constitutional body established under which provision?

- A) Article 32
- B) Article 51A
- C) Article 338
- D) Article 356

Q37. Which district in West Bengal is known for its terracotta temples?

- A) Bankura
- B) Howrah
- C) Darjeeling
- D) Cooch Behar

Q38. In which judgement did the Supreme Court hold that Preamble is not part of the Constitution?

- A) Berubari Union Case
- B) Kesavananda Bharati Case
- C) LIC of India Case
- D) Golaknath Case

Q39. Which region of West Bengal is known as "Rangamati" due to the presence of laterite soil?

- A) The Northern Mountain Region
- B) The Western Plateau Fringe
- C) The Plains
- D) The Eastern Mountain Region

Q40. Which of the following are the options with the President when a money bill is taken to him?

1. Return the bill

2. Reject the bill
3. Give assent to the bill
4. Recommend changes to the bill

Select the correct option:

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

Q41. Who among the following has the power to order the establishment of separate development boards for Vidarbha and Marathwada in Maharashtra state?

- A) President
- B) Prime Minister
- C) Governor of state
- D) Chief Minister

Q42. Who among the following is not a member of the National Development Council (NDC)?

- A) Prime Minister of India
- B) Chief Ministers of all states
- C) Finance Minister of India
- D) Vice President of India

Q43. Who appoints the Chief Information Commissioner of India?

- A) President of India
- B) Prime Minister of India
- C) Chief Justice of India
- D) Speaker of Lok Sabha

Q44. Who among the following elects the members of the Rajya Sabha?

- A) Elected members of the Legislative Assemblies
- B) Elected members of Legislative Councils
- C) Elected Members of Lok Sabha
- D) People of India

Q45. Which of the following is the aim of Democratic Socialism

- A) bringing about Socialism through peaceful means
- B) bringing about Socialism through violent and peaceful means
- C) bringing about Socialism through violent means
- D) bringing about Socialism through democratic means

Q46. The "Doctrine of Pleasure" regarding the removal of civil servants is enshrined in

which article of the Indian Constitution?

- A) Article 310
- B) Article 311
- C) Article 312
- D) Article 313

Q47. Which coal producer from below is outside the Coal India Ltd?

- A) Southern Eastern Coalfields (Bilaspur)
- B) Bharat Coking Coal of Dhanbad
- C) Mahanadi Coalfields (Sambalpur)
- D) Singareni Collieries Company (Telangana)

Q48. Popular channel of inward foreign remittances to India is?

- A) SWIFT
- B) Rupee Drawing Arrangement (RDA)
- C) Direct transfers
- D) Cheques and Drafts

Q49. Economist known for publicly opposing Keynes and supported private spending during a recession?

- A) Thomas Malthus
- B) Friedrich Hayek
- C) Arthur Pigou
- D) Gary Becker

Q50. Annual plans were launched for the first time in which of the following years in India?

- A) 1969 to 1972
- B) 1966 to 1969
- C) 1973 to 1975
- D) 1988 to 1991

Q51. Contribution of the Unorganised market in India's retail market is ?

- A) 30%
- B) 88%
- C) 47%
- D) 61%

Q52. Which among the following is the main objective of SLR?

1. Control credit expansion of bank
2. Ensure the solvency of commercial banks
3. To meet the commitments of banks on a later date

Choose the correct option from the choice given below:

- A) 1,2 and 3

- B) 1 and 2 only
- C) 2 and 3 only
- D) 3 only

Q53. Buckingham Canal is located in which of the following state?

- A) Andhra Pradesh
- B) Karnataka
- C) West Bengal
- D) Kerala

Q54. Octroi is an?

- A) Tax
- B) Tax collection centre
- C) Tax processing centre
- D) Tax information centre

Q55. Which of the following is not included in the general methodology while estimating national income?

- A) Pension
- B) Investment Expenditure
- C) Value added
- D) Consumption Expenditure

Q56. What is India's rank in the world in Egg Production as of 2023?

- A) First
- B) Second
- C) Third
- D) Fourth

Q57. Reverse transcriptase helps in which of the following transcriptions in genes?

- A) Single-stranded DNA into double-stranded DNA
- B) Single-stranded RNA into double-stranded DNA
- C) Single Stranded RNA into double-stranded RNA
- D) Double-Stranded DNA into single-stranded RNA

Q58. Stapes, the smallest bone in the human body, is located in which part of the human organ?

- A) Ear
- B) Nose
- C) Neck
- D) hand

Q59. How many number of Magnetic quantum numbers are possible for any sub-shell (l)?

- A) 2l
- B) 2l + 1

- C) 2l -1
- D) 1

Q60. Among which of the following is/are required for transmission of nerve impulses?

- A) Sodium, Potassium & Magnesium
- B) Sodium & Magnesium only
- C) Sodium only
- D) Magnesium only

Q61. Saffron is obtained from which among the following parts of the plant?

- A) Stigma
- B) Anther
- C) Stamen
- D) Pollen

Q62. What is the popular name of Trimethylxanthine, the chemical name of a stimulant that is found in tea and coffee?

- A) Thein
- B) Caffeine
- C) Theobromine
- D) heophylline

Q63. Which of the following should be drunk, before undergoing radiological examinations?

- A) Barium sulphate
- B) Sodium chloride
- C) Strontium phosphate
- D) Germanium tetrachloride

Q64. Which of the following refining methods works on the principle that impurities are more soluble in the melt than in the solid state of the metal?

- A) Liquefaction
- B) Electrolytic refining
- C) Zone refining
- D) Vapour Phase refining

Q65. Which of the following is generally an insecticide?

- A) TNT
- B) DDT
- C) Ascorbic acid
- D) Ammonium phosphate

Q66. A process in which water is absorbed by solids- colloids which causes an increase in volume is called?

- A) Imbibition
- B) Diffusion
- C) Permeability

D) Inhalation

Q67. The correct electronic configuration of Krypton, whose atomic number is 36 is?

- A) 2, 18,16
- B) 2,8,18,8
- C) 2,18,8,8
- D) 2,8,24,4

Q68. Consider the following statements about acetylene:

1. It is used in the welding industry.
2. It is a raw material for preparing plastics.
3. It is easily obtained by mixing silicon carbide and water.

Which of the above statements is/are correct?

- A) 1 and 2 are correct
- B) 1 and 3 are correct
- C) 2 and 3 are correct
- D) All three are correct

Q69. Which one of the following Compounds/minerals does not contain oxygen?

- A) Haematite
- B) Bauxite
- C) Cryolite
- D) Calcite

Q70. Which of the following is not a noble gas?

- A) Radon
- B) Argon
- C) Carbon
- D) Neon

Q71. Which national park in West Bengal is known for its population of one-horned rhinoceros?

- A) Neora Valley National Park
- B) Jaldapara National Park
- C) Sundarban National Park
- D) Singalila National Park

Q72. Respiration is which of the following type of process?

- A) Exothermic process only
- B) Endothermic process only
- C) Both exothermic and endothermic
- D) Neither exothermic nor endothermic

Q73. What is the SI unit of the Coefficient of Mutual inductance?

- A) weber
- B) candela

- C) henry
- D) lambert

Q74. Work done while holding a 25 kg iron plate for 25 seconds is?

- A) 25 j
- B) 1 j
- C) 0
- D) 625 j

Q75. The forces which act at a point are called as:

- A) Collinear forces
- B) Coplanar forces
- C) Concurrent forces
- D) Unit forces

Q76. Which district in West Bengal is known for its silk production?

- A) Malda
- B) Nadia
- C) Murshidabad
- D) Birbhum

Q77. Bowman's Capsule' is the functional unit of which among the following human physiological system?

- A) Circulatory System
- B) Respiratory System
- C) Excretory System
- D) Reproductive System

Q78. Speed of sound wave is represented by which of the following?

- A) wavelength x frequency
- B) 2 x wavelength x frequency
- C) wavelength/frequency
- D) (wavelength x frequency)/2

Q79. Which of the following is correct about an electric motor?

- A) It converts potential energy to chemical energy
- B) It converts electrical energy to mechanical energy
- C) It converts mechanical energy to electrical energy
- D) None of the above

Q80. Heavy rocks of the lithosphere is represented by which of the following?

- A) Substratum
- B) SIAL
- C) SIMA
- D) None of the above

Q81. Calorimeter does which of the following functions?

- A) Measures the amount of calories in the body
- B) Measures the heat of chemical reactions and physical change
- C) Measures the density of an object
- D) None of the above

Q82. Devin AI, recently seen in the news is best described as?

- A) India's first government-owned OTT platform
- B) Spaceflight designed by ISRO
- C) World's first fully autonomous AI software engineer
- D) Anti-drone system

Q83. The university that conferred President Murmu with the Honorary Degree of Doctor of Civil Law is?

- A) University of Chicago
- B) University of Mauritius
- C) University of Melbourne
- D) University of Pennsylvania

Q84. Who won the Best Actor award at the 94th Academy Awards (Oscars) held in 2024?

- A) Benedict Cumberbatch
- B) Will Smith
- C) Leonardo DiCaprio
- D) Javier Bardem

Q85. Ethanol 100 fuel, is currently used in how many states?

- A) Three
- B) Four
- C) Five
- D) Seven

Q86. Which Indian state became the first to launch a state-specific financial inclusion index?

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

Q87. What is the rank of India in the recently released Global Human Development Index?

- A) 75
- B) 78
- C) 125

D) 134

Q88. Who has the power to summon and prorogue the sessions of the Parliament of India?

- A) President of India
- B) Prime Minister of India
- C) Speaker of Lok Sabha
- D) Vice President of India

Q89. The prestigious Ranji Trophy 2024 title was won by which of the following teams?

- A) Uttar Pradesh
- B) Mumbai
- C) Vidarbha
- D) Bihar

Q90. The theme of the 2024 World Cancer Day observed on February 4th is?

- A) "Close the Care Gap"
- B) "I Am and I Will"
- C) "Together It Is Possible"
- D) "Debunk the Myths"

Q91. Prime Minister Narendra Modi inaugurated the Kochrab Ashram in which of the following states?

- (A) Madhya Pradesh
- (B) Himachal Pradesh
- (C) Gujarat
- (D) Arunachal Pradesh

Q92. The 'Mukhya Mantri Jansampark Yojana' to enhance communication between the government and the public was launched by which state?

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

Q93. Who won the Best Actor Award at the Academy Awards 2024 (Oscars)?

- A) Robert Downey Jr.
- B) Killian Murphy
- C) Johnny Byrne
- D) Christopher Nolan

Q94. Which planet is home to the recently discovered Noctis Volcano?

- A) Mars
- B) Jupiter
- C) Neptune
- D) Saturn

Q95. By 2025-26, what percentage of ethanol

blending in petrol is targeted by the government?

- A) 10%
- B) 15%
- C) 20%
- D) 25%

Q96. The Blue Line, recently in headlines, marks the boundary between which two countries?

- A) North Korea and South Korea
- B) Lebanon and Israel
- C) India and China
- D) Sudan and Libya

Q97. Who is the newly appointed CEO of the World Gold Council for India?

- A) Sachin Jain
- B) Arti Saxena
- C) Dharmesh Sodah
- D) Sheela Kulkarni

Q98. Yars Missile, seen in recent news, is an intercontinental ballistic missile developed by which country?

- A) Russia
- B) China
- C) Israel
- D) India

Q99. The Mangistau region, recently in headlines due to a man-made methane leak, is situated in which country?

- A) Kazakhstan
- B) Vietnam
- C) Uzbekistan
- D) Indonesia

Q100. Which state is home to the Pobitora Wildlife Sanctuary, as seen in recent news?

- A) Gujarat
- B) Manipur
- C) Assam
- D) Rajasthan

Q101. Operation Rising Sun, as recently seen in the news, is associated with which of the following activities?

- A) Smuggling of foreign-origin gold
- B) Smuggling of drugs
- C) Smuggling of tiger's skin
- D) Smuggling of red sandalwood

Q102. Where was the inauguration of the

National Time Protocol (NTP) for disseminating Indian Standard Time (IST) was done recently?

- A) Chennai
- B) Hyderabad
- C) Lucknow
- D) Mumbai

Q103. Who has been appointed as the new chairman of Prasar Bharti recently?

- A) Gaurav Dwivedi
- B) Navneet Kumar Sehgal
- C) Shashi Shekhar Vempati
- D) Jagat Singh Chauhan

Q104. Foot and Mouth Disease (FMD), in recent news, is associated with which category of diseases?

- A) Viral disease of livestock
- B) Bacterial disease of livestock
- C) Fungus disease of birds
- D) Plant disease

Q105. Recently 'KKL(R) 3', was in the news, what is it?

- A) Salt-tolerant paddy variety
- B) Newly discovered plant disease
- C) Asteroid
- D) Black hole

Q106. What is the mascot of the Khelo India Winter Games 2024?

- A) Nokki, Lekki, and Tsukki
- B) Neve, Gliz and Aster
- C) ciga, Quatchi, Sumi
- D) Sheen-e She

Q107. How many jails across India have been certified as 'Eat Right Campus' by FSSAI?

- A) Nearly 50 jails
- B) Over 150 jails
- C) Nearly 200 jails
- D) Nearly 100 jails

Q108. Who won the 2024 Australian Open Men's Singles title?

- A) Rafael Nadal
- B) Novak Djokovic
- C) Roger Federer
- D) Daniil Medvedev

Q109. What is the Ruling period of Pulakeshin I?

- A) c. 5175 - 546 CE

- B) c. 5305 - 556 CE
- C) c. 535 - 566 CE
- D) c. 515 - 536 CE

- B) Gandhara
- C) Kashi
- D) Magadha

Q110. "Satyamev Jayate" phrase is mentioned in which of the following Upanishads?

- A) Katho Upanishad
- B) Mandukya Upanishad
- C) Chandogya Upanishad
- D) None of the Above

Q117. The Battle of Talikota, an important event in medieval Indian history, took place in which year?

- A) 1496
- B) 1565
- C) 1206
- D) 1526

Q111. The Ochre Coloured Pottery culture (OCP) is mainly found in which among the following places?

- A) Bihar
- B) Eastern UP
- C) Western UP
- C) Bengal

Q118. The gesture of Katyotsarga's pose is?

- A) Shiva
- B) Vishnu
- C) Gautam Buddha
- D) Mahavira

Q112. Which among the following is not one of the realms of "being" as stated by Buddhism?

- A) Prani
- B) Preta
- C) Deva
- D) Bodhisattva

Q119. Who built the famous Sun Temple at Konark in Odisha, India?

- A) Narasimhadeva I
- B) Rajaraja Chola I
- C) Harshavardhana
- D) Krishna Deva Raya

Q113. Who was the first Sultan of Delhi to establish a separate department for agriculture known as the "Diwan-i-Kohi"?

- A) Iltutmish
- B) Alauddin Khalji
- C) Muhammad bin Tughlaq
- D) Qutb-ud-din Aibak

Q120. Which of the following committees was responsible for collecting tax in the Mauryan Administration?

- A) Manufactured articles
- B) Tax collection
- C) Kara
- D) Trade, commerce, and market regulations

Q114. Who sent Megasthenes (the Greek ruler) to the court of Chandragupta Maurya?

- A) Antiochus
- B) Ptolemy
- C) Magas
- D) Seleucus Nicator

Q121. Who offered a bowl of milk-rice to Buddha?

- A) apila
- B) Sujata
- C) Suneeta
- D) Yashodhara

Q115. Which of the following ancient Tamil Kingdoms came to be known from Sangam Literature?

- A) Chera
- B) Chola
- C) Pandya
- D) All of them

Q122. The medieval Indian scholar Al-Biruni hailed from which region?

- A) Central Asia
- B) Persia
- C) South India
- D) North India

Q116. The city named Pushkalavati in ancient times was the capital of which of the following Kingdoms?

- A) Kosal

Q123. What were the rich peasants called in the 6th century BCE?

- A) Ganapati
- B) Gramabhojaka
- C) Kamikaze
- D) Gramakas

- Q124. Which of the following rock edicts mentions Dhamma Mahamattas?**
A) Fifth Edict
B) Third Edict
C) Seventh Edict
D) Sixth Edict
- Q125. Sahul continental shelf is located in which of the following continents?**
A) Eurasia
B) Africa
C) South America
D) Australia
- Q126. Who founded The Ghadar Party in November 1913 in San Francisco USA?**
A) Madam Bhikaji Cama
B) Lala Har Dayal
C) Shyamji Krishana Verma
D) Both (a) and (b) above
- Q127. Which among the following national leaders was not one of the lawyers to defend the soldiers of the Indian National Army trial of 1945?**
A) Bhula Bhai Desai
B) Sir Tej Bahadur Sapru
C) Rajagopalachari
D) Jawaharlal Nehru
- Q128. The independent existence of Peshwa Baji Rao-II was brought to an end by which of the following treaties?**
A) The Treaty of Purandar
B) Convention of Wadgaon
C) Treaty of Bassein
D) Treaty of Salbai
- Q129. The first English newspaper in India was started by whom?**
A) Anie Besant
B) Raja Rammohan Roy
C) J.A. Hickey
D) Lord William Bentinck
- Q130. Who was the first woman to become the Chief Minister of any State in India?**
A) Nandini Satpathy
B) Dr. J. Jayalalitha
C) Sucheta Kripalani
D) s. Mayawati
- Q131. The VandeMataram was authored by?**
A) Mahatma Gandhi
B) Rabindranath Tagore
C) Bankim Chandra Chatterjee
D) Sarat Chandra Chatterjee
- Q132. Who is regarded as the 'father of modern India'?**
A) Raja Ram Mohan Roy
B) Swami Dayananda Saraswati
C) Sri Aurobindo
D) Bhagat Singh
- Q133. Which among the following was an important feature of the Government of India Act of 1919?**
A) enlargement of Indian Councils
B) provision for direct election
C) Introduction of dyarchy in the Provinces
D) All the above
- Q134. Muslim communalism in India was aided by the activities of?**
A) Ashfaqullah
B) Liaqat Hussain
C) Maulana Abul Kalam Azad
D) Sayyid Ahmad Khan
- Q135. Two bombs on the Door of the Central Assembly in New Delhi were thrown on April 8, 1929, by whom?**
A) Bhagat Singh
B) Batukeshwar Dutt
C) Raj Guru
D) Both (a) and (b) above
- Q136. Noakhali, where the infamous Noakhali riots took place is situated?**
A) West Bengal
B) Bangladesh
C) Tripura
D) Bihar
- Q137. During the first Carnatic War, the French Governor-General of Pondicherry was?**
A) La Bourdonnais
B) Captain Paradise
C) Duplex
D) Count-de-Lally
- Q138. Consider the following statements**
1. The Permanent Settlement system was introduced by the British with the aim of enhancing investment in agriculture.
2. The British introduced the Permanent Settlement system to help the

emergence of a class of farmers who would be loyal to the Company.

Which of the above statements is/are correct?

- A) 1 only
- B) 2 only
- C) Both 1 and 2
- D) Neither 1 nor 2

Q139. Seema is a bright student in grade 6. She was asked to multiply a number by 25 but by mistake, he multiplied by 45 and the answer was 200 more than the correct answer. What was the number?

- A) 8
- B) 9
- C) 10
- D) 11

Q140. Who was the supreme body in Britain at the time of the commencement of the Government of India Act- 1858?

- A) Queen Victoria
- B) The British Parliament
- C) Government of Britain
- D) None of these

Q141. Arrange these Historical events in the correct chronological sequence:

- 1) Rowlatt Act
 - 2) Simon Commission
 - 3) Partition of Bengal
 - 4) Morley-Minto reforms
- A) 4-3-2-1
 - B) 4-1-2-3
 - C) 4-3-2-1
 - D) 3-4-1-2

Q142. Delhi Chalo is the famous quote by which one of the following Indian freedom fighters?

- A) Subhas Chandra Bose
- B) Bal Gangadhar Tilak
- C) Mahatma Gandhi
- D) Madan Mohan Malviya

Q143. The Magna Carta of the Indian people refers to which of the following?

- A) The Government of India Act, 1858
- B) The Ilbert Bill
- C) Indian Councils Act of 1892
- D) Queen Victoria's Proclamation

Q144. Annie Besant started which of the following newspapers?

- A) The Hindu

- B) Indian Express
- C) The Times of India
- D) New India

Q145. Who started the Indian Reforms Association?

- A) Narayan Guru
- B) Swami Vivekananda
- C) Krishna swami Aiyar
- D) Keshav Chandra Sen

Q146. Which of the following committees is associated with the Sedition Act?

- A) Rowlatt Committee
- B) Muddiman Committee
- C) Butler Committee
- D) Both A & B

Q147. Which of the following was the achieved milestone of the Non-Cooperation Movement of 1921?

- A) It stopped the injustice done to the Khilafat
- B) Indians obtained some political rights
- C) The Hindus and the Muslims came closer in political pursuit
- D) It avenged the Punjab atrocities

Q148. Consider the following statements about First Anglo-Carnatic wars:

- 1. The first Carnatic War was an extension of the Anglo-French War in Europe.
- 2. Treaty of Aix-La-Chapelle is related to second Anglo-French wars.

Which of the above statements is/are correct?

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

Q149. In 1700, the British East India company fortified Fort William at Calcutta. Who among the following was appointed as its first president?

- A) Sir Charles Eyre
- B) Warren Hastings
- C) William Bentck
- D) Robert Clive

Q150. Which of the following leaders gave the term 'insane waste' on the burning of foreign clothes during the Non-Cooperation Movement?

- A) Lord Reading
- B) Motilal Nehru
- C) Rabindra Nath Tagore
- D) Mohammad Ali

Q151. The Non-Cooperation Movement under the leadership of Mahatma Gandhi and the Indian National Congress took place during?

- A) 1920-1922
- B) 1921-1923
- C) 1987-1989
- D) 1990-1992

Q152. After which of the following events Gandhiji withdrew the Non-cooperation movement?

- A) Chauri Chaura incident
- B) Jallianwala massacre
- C) Bhagat Singh Hanging
- D) All of the above

Q153. The Rashtrakutas were involved in a continuous fight against which of the following rulers?

- A) Pallavas of Kanchi
- B) Pandyas of Madurai
- C) Eastern Chalukyas of Vengi
- D) All of the Above

Q154. If the cost price is 95% of the selling price, what will be the profit percentage?

- A) 4.25
- B) 5
- C) 5.26
- D) 6.25

Q155. Rana bought an item for Rs. 2500 sold it at 25% and paid Rs. 125 for it.

The total profit is

- A) 625
- B) 750
- C) 656.25
- D) 500

Q156. TOH::EEFFOC::DLOC:?

- A) GREYHOUND
- B) DSC
- C) MARCOS
- D) MAERCECI

Q157. Tap A & Tap B can fill a tank in 30 & 40 minutes respectively. Tap C can empty the tank in 60 minutes. If all the three taps are opened, how much time will the

taps take to fill the tank?

- A) 48 Minutes
- B) 72 minutes
- C) 36 minutes
- D) 24 minutes

Q158. In one hour, a boat goes 11 km along the stream and 5 km against it. Find the speed of the boat in still water.

- A) 6
- B) 7
- C) 8
- D) 9

Q159. The ratio of two numbers is 5: 8 and their difference is 69. The two numbers are

- A) 120, 131
- B) 150, 163
- C) 115, 184
- D) 118, 173

Q160. Arun is celebrating his birthday today. On his next birthday, he will be twice his age which was 12 years ago. How old is Arun today?

- A. 24 years
- B. 25 years
- C. 26 years
- D. 27 years

Q161. Anusri is eleven years younger than Yashomati. Fifteen years from now, Yashomati's age will be three times Anusri's present age. What is Yashomati's present age?

- A) 21 years
- B) 24 years
- C) 20 years
- D) 23 years

Q162. Select the correct combination of mathematical signs to sequentially replace the × signs and to balance the following equation.

$$11 \times 15 \times 78 \times 6 \times 18 \times 160$$

- A) +, ×, -, ÷, =
- B) ×, +, ÷, -, =
- C) ×, +, -, ÷, =
- D) +, ×, ÷, -, =

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. 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

Q165. 'If today is Friday, then what will be the day after 363 days?

- A) Sunday
- B) Saturday
- C) Thursday
- D) None of these

Q166. If canned vegetables are .79 a can, how many cans of vegetables can Gary buy for \$10, and how much change will he have left over? (no tax included).

- A) 12 cans, 0.52 leftover
- B) 13 cans, 0.47 leftover
- C) 12 cans, .48 leftover
- D) 13 cans, 0.56leftover

Q167. Statement: Do not throw the garbage outside the dustbin.

Assumptions:

(I) It is possible to throw the garbage outside the dustbin.

(II) Such a warning will have some effect.

- A) Only assumption I implicit
- B) Only assumption II is implicit
- C) Either I or II is implicit
- D) Neither I nor II is implicit

Q168. 4 cats, 6 people, and 3 dogs have how many legs?

- A) 35
- B) 40
- C) 42
- D) 38

Q169. There are 3 types of cards in a bowl. Red ones, yellow ones, and blue ones. There are 20 red cards and 12 yellow cards. There are three times as many blue cards as there are red cards. How many cards

are in the bowl?

- A) 79
- B) 92
- C) 82
- D) 91

Q170. Which one is the most important river of the 'Rarr' region of West Bengal?

- A) Damodar
- B) Ajay
- C) Mayurakshi
- D) None

Q171. The Head Quarter of the 'Tiger Project' of the Sundarban region is located at :

- A) Canning
- B) Fresherganj
- C) Gosaba
- D) Basanti

Q172. Among the States of India the position of West Bengal in silk production :

- A) 1st
- B) 2nd
- C) 3rd
- D) None of these

Q173. In which year the Metro Rail system of Kolkata was started to run?

- A) 1993
- B) 1984
- C) 1995
- D) 1996

Q174. In which district of West Bengal there is a Central University?

- A) Kolkata
- B) Birbhum
- C) Midnapur
- D) None of these

Q175. Around what per cent of total rice is produced in West Bengal?

- A) 10%
- B) 12%
- C) 15%
- D) 18%

Q176. Which one is not the name of a Division of West Bengal?

- A) Kolkata
- B) Burdwan
- C) Malda
- D) Jalpaiguri

- Q177.** A part of Manbhum district was added to the district of:
A) Purulia
B) Birbhum
C) Midnapore
D) None of these
- Q178.** At present West Bengal has a net sown area of around (in Lakh hectares):
A) 45
B) 50
C) 60
D) 65
- Q179.** The most important cash crop of West Bengal is:
A) jute
B) Tea
C) Tobacco
D) None of these
- Q180.** 'Rammam' Hydro-electric project is associated with:
A) Darjeeling
B) Jalpaiguri
C) Purulia
D) Bankura
- Q181.** Which type of soil is most suitable for tea production?
A) Podsol
B) Laterite
C) Alluvial
D) None of these
- Q182.** The most important river of the plain region of the Northern part of West Bengal is :
A) Subarnarekha
B) Mahananda
C) Torsa
D) None
- Q183.** Atrai' is a Tributary of river:
A) Ganga
B) Bhagirathi
C) Padma
D) Jamuna
- Q184.** The total area of the Sundarban region is around:
A) 7000 sq. km.
B) 10000 sq. km.
C) 110000 sq. km.
D) 13000 sq. km
- Q185.** Which one of the following rivers has entered into Orissa from West Bengal?
A) Rupnarayan
B) Subarnarekha
C) Dwarakeswar
D) None
- Q186.** What is the next number in the following sequence? 9 3 16 4 36 6 81
A) 16
B) 9
C) 24
D) 22
- Q187.** If DIG is coded as 25 and CUT is coded as 49, then how will KICK be coded?
A) 43
B) 39
C) 41
D) 34
- Q188.** Jack caught 14 fish on Saturday and twice as many fish on Sunday. When he went fishing on Monday, he caught 1/2 of the fish he caught on Saturday and Sunday combined. How many total fish did he catch in all 3 days?
A) 63
B) 57
C) 61
D) 71
- Q189.** What is the 10th term in the arithmetic sequence: 3, 7, 11, 15, ...?
A) 35
B) 34
C) 39
D) 40
- Q190.** In a code language if FRIDGE is written as GTLHLK, then in the same language how will you write the word KETTLE?
A) WQLGXX
B) LGWXQK
C) GLXWQK
D) XKWQLG
- Q191.** What is the sum of the first 15 terms in the geometric sequence: 2, 6, 18, 54, ...?
A) 14,348,908.
B) 881,450
C) 871,450
D) 991,450
- Q192.** If CAB is coded as 6 and BED is coded as

- 40, then how will HAD be coded as?
A) 16
B) 52
C) 32
D) 46
- Q193.** What is the 7th term in the Fibonacci sequence: 1, 1, 2, 3, 5, 8, ...?
A) 10
B) 12
C) 13
D) 21
- Q194.** 'Lawyer' is related to 'Justice' in the same way as 'Arbitrator' is related to '
A) Judgment
B) Injustice
C) Settlement
D) Communication
- Q195.** The Mutiny of 1857 was described as the First War of Independence by:
A) Bal Gangadhar Tilak
B) Subhash Chandra Bose
C) Bhagat Singh
D) V.D. Savarkar
- Q196.** Who among the following was NOT associated with the revolt of 1857?
A) Kunwar Singh
B) Bhagat Singh
C) Begum Hazrat Mahal
D) Mangal Pandey
- Q197.** The Sepoy Mutiny in India started from which of the following places?
A) Barrackpore
B) Champaran
C) Bareilly
D) Meerut
- Q198.** The main cause of October Heat in India is?
A) Low-pressure systems over the Indo-Gangetic plains
B) Hot and dry weather
C) Very low-velocity winds
D) High temperature associated with high humidity
- Q199.** Which of the following rivers flows from south to north?
A) Krishna
B) Kaveri
C) Betwa
D) Godavari
- Q200.** Rajarappa Chinna Masta temple is situated on the confluence of which rivers?
A) Damodar – Konar
B) Damodar – Behera
C) Damodar – Barakar
D) Damodar – Sherbukhi

ANSWERS

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

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