

JUNE, 2024

Articulate

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MONTHLY CURRENT AFFAIRS FOR UPSC CSE

Women Representation in Lok Sabha 2024

Hunga Tonga Volcano

World's first 3D-Printed Rocket Agnibaan SOrTeD Engine

Indian Peacekeeper gets U.N. Award on Gender Advocacy

Burp Tax: Tax on Methane Emissions from Livestock





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POLITY IN NEWS: JUNE (2024)

PARLIAMENT AND LEGISLATIONS

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- Rishabh Gaur yes sir
- Utkarsh Mishra Hahaha
- Prince Mishra Hahahahaha
- Harshit Goel ji sir
- Rashmi Yadav Y sir
- Pushkr Choudhary yes sir, clear
- Sushant kumar hahaha + JUMP TO LATEST



Parliament and Legislations

Women representation in Lok Sabha 2024

About Strength of Women in Lok Sabha at present:

- The number of women elected to the Lok Sabha has **decreased to 74 from 78 in 2019.**
- According to Election Commission of India's (ECI) data, as against **14.3% of all members in the 17th Lok Sabha elected in 2019**, Women constitute **13.6% members of the new Lok Sabha in 2024.**
- West Bengal** leads the nation with 11 female MPs elected to the Lower House out of all the states.

Women reservation in Lok Sabha:

- The **Women Reservation Act, 2023**, reserves **one-third of all seats** for women in **Lok Sabha, State legislative assemblies, and the Legislative Assembly of the National Capital Territory of Delhi**, including those reserved for **SCs and STs.**

Why in News?

- The Lok Sabha elections in 2024 highlight that now there are fewer women representatives in the Indian Parliament than 2019.

Leader of Opposition (LoP)

About Leader of Opposition (LoP):

- The LoP is the **head of the largest opposition party** in the Lok Sabha with **at least one-tenth of the total seats.**
- The office of the LoP is not mentioned in the Constitution.
- The LoP in both Houses has **statutory recognition and receives a salary, allowances, and facilities equivalent to a cabinet minister** under the **Parliament Act, of 1977.**
 - In the last two tenures of **Lok Sabha there has been no official Leader** of the Opposition in the Lok Sabha due to no single opposition party having at least 10% of the total strength of the house (as per convention), which is the requirement for this position.

Conditions need to recognize as Leader of Opposition:

- The party should be numerically the biggest one in opposition to the government.
- Party should be recognised by the Speaker as a party.

Roles of LoP:

- The LoP will serve important **committees like Public Account (Chairman), Public Undertaking, Estimates and Joint Parliamentary Committees.**
- He is entitled to membership on **selection committees appointing heads of bodies like the Central Vigilance Commission (CVC), Central Information Commission (CIC), CBI, NHRC, and Lokpal.**
- Scrutiny and Accountability:** Leads the opposition in scrutinizing government policies and actions, ensuring accountability to parliament and the public.

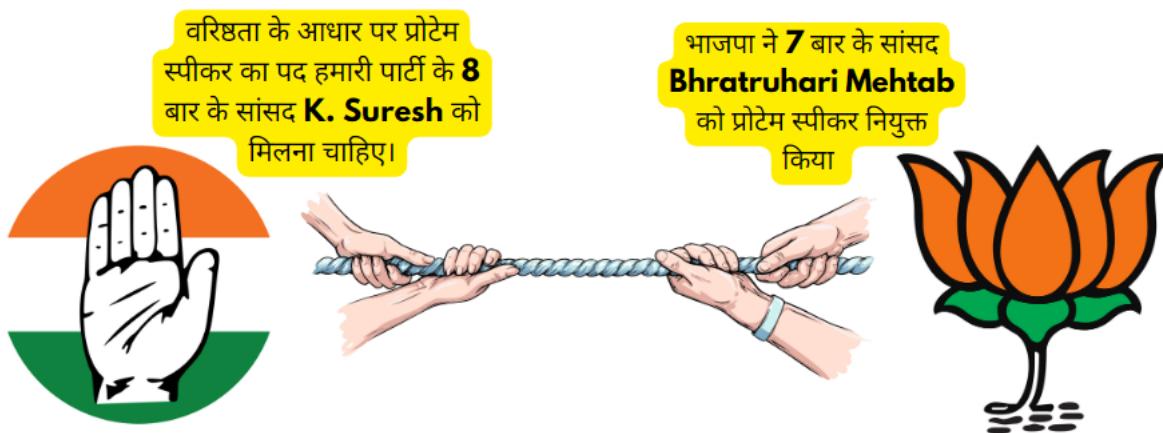


- **Policy Alternative:** Proposes alternative policies and strategies, offering a different vision for national governance.
- **Coordination:** Coordinates opposition activities and strategies, ensuring a unified and effective stance against the government.

Why in News?

- Recently, Rahul Gandhi, a member of the Indian National Congress, has been named the “**Leader of Opposition in the 18th Lok Sabha**”.

Pro-tem Speaker



About Pro-tem Speaker:

Aspect	Details
Meaning	Pro-tem is a Latin expression meaning “for the moment”.
Constitutional Mention	Not specifically mentioned in the Constitution; mentioned in the ‘Handbook on the Working of the Ministry of Parliamentary Affairs’.
Appointment Authority	Appointed temporarily by the President or Governor.
Purpose	To conduct State legislature proceedings until a new Speaker is elected and Administer oaths to new members.
Election Timing	Usually elected for the first sitting of a new legislative assembly.
Duration	Ends once the new Speaker is elected.
Selection Criteria	Typically a senior member of the legislature, chosen based on custom or parliamentary practice.

Why in News?

- The **first session of the 18th Lok Sabha** will begin shortly and have the election for a new **pro tem Speaker**.



Powers of Speaker

About Speaker:

- The Speaker is the head of the Lok Sabha and its representative.
- The Speaker is elected by a **simple majority vote** and holds office **until the House is dissolved** unless they resign or are removed earlier.
- Removal requires a no-confidence motion with a 14-day notice.
- The Constitution doesn't specify qualifications for the Speaker, but the role is distinct and vital for parliamentary operation.
- The **Deputy Speaker** performs the duties when the Speaker is not present.
- Article 93:** Appointment of the Speaker and Deputy Speaker of the Lok Sabha.

Major Functions of the Speaker:

Article	Description
Article 95	The Speaker shall preside over the sittings of the Lok Sabha and maintain order and decorum in the House.
Article 96	The Speaker has the right to take part in the proceedings of the House and speak in any sitting of the House or its committees of which they are a member, but cannot vote in the first instance.
Article 97	The Speaker is responsible for the certification of money bills and financial bills and can direct that any other bill be treated as a money bill or a financial bill.
Article 100	The Speaker has the casting vote in the event of a tie in the voting in the House.

Why in News?

- The Speaker, and Deputy Speaker are chosen soon after the House meets for the first time, which is slated to happen after the recent election results.

Council of Ministers (CoM)

Council of Ministers (COM)	
Article 74	Provides that there shall be a COM, headed by the Prime Minister (PM), to aid and advise the President.
91st Constitutional Amendment Act 2023	The total number of ministers, including the PM, in the COM shall not exceed 15% of the total strength of the Lok Sabha.
Union Territories (NCT of Delhi and J&K)	The maximum limit is 10% of the total strength of its Assembly.
Minimum Requirement	No minimum requirement at the Central level; smaller States should have a minimum of 12 Ministers.
Composition of COM	Consists of a Cabinet Minister, a Minister of State (MoS) with independent charge, MoS, and a Deputy Minister.



Constitutional Provisions about the COM

Article 75	The Prime Minister shall be appointed by the President and the other Ministers shall be appointed by the President on the advice of the Prime Minister.
Article 78	Duties of the Prime Minister with respect to furnishing information to the President, etc.
Article 88	Rights of Ministers with respect to the Houses.

Oath and Salary of Ministers

Oath of Office and Secrecy	Administered by the President of India.
Salary	Determined by Parliament from time to time.

Why in News?

- The Union Council of Ministers, led by the Prime Minister, was recently sworn in on June 9, 2024.

Rights

President's Office and Right to Information (RTI)

RTI provisions concerning the President's office:

- **Information allowed under the RTI Act:**
 - Administrative information, legislative information, financial information, decision-making processes, public records, correspondence, and policy Information.
- **Information exempt under the RTI Act:**
 - National security, personal privacy, confidential information, commercial confidence, and others (explicitly forbidden by law, Information that would impede the process of investigation or apprehension of offenders).

Key provisions about RTI Act, 2005:

- **Right to Information:** The Act allows citizens to request information from any public authority, which is required to reply within 30 days.
- **Public Authorities:** Includes all levels of government, as well as organizations and institutions established, owned, or substantially financed by the government.
- **Exemptions:** Certain information is exempt from disclosure, such as information affecting national security, personal privacy, and commercial confidence.
- **Information Commission:** Establishes Central and State Information Commissions to oversee the implementation of the Act and handle appeals.

Central Information Commission (CIC)

Establishment	Established by the Central Government in 2005 under the provisions of the Right to Information Act (2005).
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Purpose	Oversees the implementation of the RTI Act and ensures citizens' right to information.
Composition	Consists of a Chief Information Commissioner and up to 10 Information Commissioners.
Appointment	Members are appointed on the recommendation of a committee consisting of: <ul style="list-style-type: none"> • The Prime Minister (Chairperson) • The Leader of Opposition in the Lok Sabha • A Union Cabinet Minister nominated by the Prime Minister
Term of Office	The Chief Information Commissioner and an Information Commissioner serve for a term set by the Central Government or until they turn 65, whichever comes first.

Why in News?

- Recently, CIC upheld Rashtrapati Bhavan's response to an RTI query on the number of times former President Kovind returned decisions by the Prime Minister/Union Council of Ministers for reconsideration.

Maternity Leave in Surrogacy Cases for Women Government Employees

About Surrogacy:

- Surrogacy is a method when a woman (surrogate) carries and delivers a child for another person or couple (intended parents) through assisted reproduction.

Recent Change in Maternity Provisions:

Before	After
No rules to grant maternity leaves to women Central government employees in case a child was born through surrogacy.	180 days of maternity leave for surrogacy births to central Government Women Employees

Why in News?

- Recently, the Central government has allowed women government employees to take maternity leave for surrogacy births.

Refer Articulate Magazine March 2024 edition for more details.

Inter-faith Marriages and the Special Marriage Act

About Special Marriage Act (SMA), 1954:

- SMA** emphasizes **civil marriages sanctioned by the state rather than religion**.
- SMA** allows **inter-faith or inter-caste couples to marry** without giving up their religious identity or resorting to conversion.
- Key Provisions:**
 - Applicability: The Act applies to **all Indian citizens irrespective** of their **religion**.



- It applies **not only to residents of India but also to Indian nationals living abroad.**
- The minimum age to get married under the **SMA is 21 years for males and 18 years for females.**
- It **forbids polygamy** and declares a marriage **null and void.**

Why in News?

- The **Madhya Pradesh High Court's** decision **refused protection to a Muslim man and Hindu woman**, citing that their marriage under the **Special Marriage Act (SMA), 1954 wouldn't be valid.**

NHRC seek report on Nata Pratha practice

About Nata Pratha:

- It refers to a **traditional system of bride-price or bride exchange** prevalent in certain communities in states like **Rajasthan, Madhya Pradesh, Uttar Pradesh, and Gujarat.**
- It involves **selling girls** under the cover of an underage **marriage or illegality**, either on **stamp paper or informally.**

National Human Right Commission (NHRC)

- It was established on 12th October, 1993.
- Established under **Protection of Human Rights Act (PHRA), 1993.**
- The President appoints the chairman and members based on the recommendations of a six-member committee:
 - Headed by the Prime Minister.
 - Speaker of the Lok Sabha, the Deputy Chairman of the Rajya Sabha, the leaders of the Opposition in both Houses of Parliament, and the Union Home Minister.
- The chairman and members serve a term of three years or until they reach the age of 70, whichever comes first. The President can remove them under certain circumstances.

Why in News?

- Recently, **the National Human Right Commission (NHRC)** issued notice to the **Union Ministry of Women and Child Development** and some states over a practice known as **Nata Pratha.**

Bihar reservation hike scrapped: Patna HC

- **Constitutional Provisions Related to Reservations:**
 - The reservation of SC and ST people in Central and State legislatures is covered in Part XVI of the Indian Constitution.
 - **Article 15(3)** of the constitution empowers the state to make special provision for **women and children.**
 - **Articles 15(4) and 15(5)** provide special provisions for socially and educationally backward classes, SCs, and STs in admissions to private educational institutions.
- **Important Arguments in the Court's Judgment:**
 - The Bihar government's decision to **raise reservations above 50%** has been filed in a **Public Interest Litigation (PIL).**



- The Patna High Court declared that the **Supreme Court's 50% cap** in the **Indira Sawhney case (1992)** was broken by the **65% quota**.
- The court ruled the measure unconstitutional, as it increased total reservation to 75%, along with the **10% Economically Weaker Sections (EWS)** quota.

Why in News?

- Recently, the Patna High Court overturned Bihar government's decision to raise reservation quotas from 50% to 65% for Backward Classes (BC), Extremely Backward Classes (EBC), SC, and ST in education and government jobs.

Judiciary

Statutory Bail

About Statutory Bail:

- Statutory bail is a legal right
- Also known as "**default bail**" under Section 167(2) of the Code of Criminal Procedure (CrPC), 1973.
- It is a right of the accused to be released on bail due to the failure of the prosecution to complete the investigation within a prescribed period.
- **Section 167(2) of CrPC:** If the investigation is not completed within 60 days for offenses punishable with less than 10 years of imprisonment, or 90 days for offenses punishable with 10 years or more, the accused is entitled to statutory bail.
- **Section 436A of CrPC:** Provides for the release of undertrial prisoners on bail if they have been in detention for a period extending up to one-half of the maximum period of imprisonment specified for that offense.

Why in News?

- A JNU Scholar got bail (under Section 436A CrPC) in one case of sedition and unlawful activity under Unlawful Activity Prevention Act (UAPA).

Philippines is one of 2 countries where divorce is illegal

Why is divorce not legal in the Philippines?

- **Religious Influence:** Predominantly Catholic country; strong influence of the Catholic Church opposing divorce.
- **Alternative Solutions:** Availability of annulment and legal separation as alternatives to divorce.

Why in News?

- Recently an Undertrial prisoner announced to contest the Lok Sabha elections.

Bail in money laundering cases, and the 'twin test' under PMLA

Bail in Money Laundering Cases

- **Bail Criteria:**
 - Courts consider the gravity of the offence, the evidence against the accused, and the potential for the accused to influence witnesses or tamper with evidence.



- **Regular and Anticipatory Bail:**
 - **Regular Bail:** Granted after the accused is arrested.
 - **Anticipatory Bail:** Sought before the arrest, providing protection from arrest under specific conditions.

The ‘Twin Test’ under PMLA:

It is a set of stringent conditions that an accused must satisfy to be granted bail in money laundering cases under the PMLA. It is derived from **Section 45 of the PMLA**, which was amended to make the bail process more stringent for individuals accused of money laundering.

- **First Test: Prima Facie Case:**
 - This involves a preliminary assessment of the evidence presented by the prosecution. If the court finds substantial evidence suggesting the involvement of the accused in money laundering activities, bail is likely to be denied.
- **Second Test: Non-Tampering with Evidence and Non-Threatening of Witnesses:**
 - The court evaluates the likelihood of the accused using their position or influence to obstruct the investigation or trial process.

Why in News?

- Delhi Chief Minister was granted bail by a trial court, who is in jail on charges under the Prevention of Money Laundering Act (PMLA), Delhi HC stayed the order.

Refer Articulate Magazine May 2024 edition, for more details.

Elections

SC held nothing ‘corrupt’ in making promises in manifestos

About Corrupt Practice under Representation of People Act, 1951:

- Under the provisions of the RPA Act, an elected representative can be disqualified if convicted of certain offences on grounds of:
 - Corrupt practices.
 - Failing to declare election expenses.
 - Interests in government contracts or works.
- **What amounts to Corrupt Practices?**
 - **Section 123 of Act defines ‘corrupt practices’:** It includes bribery, undue influence, false information, and promotion or attempted promotion of “feelings of enmity or hatred between different classes of the citizens of India on grounds of religion, race, caste, community, or language” by a candidate for the furtherance of his prospects in the election.
 - **Section 123 (2) deals with ‘undue influence’:** it defines as “any direct or indirect interference or attempt to interfere on the part of the candidate or his agent, or of any other person, with the consent of the candidate or his election agent, with the free exercise of any electoral right.”
 - **Section 123 (4) extends ambit of “corrupt practices”:** It covers the intentional publication of false statements which can prejudice the outcome of the candidate’s election.



Why in News?

- Recently, the Supreme Court has said that commitments made by political parties in their election manifestos will not amount to ‘corrupt practice’ under the election laws.

Why an accused in jail can contest, but cannot vote in an election?

About Right to Vote:

- Representation of the People Act (RPA), 1951: Section 62(5) of the RPA** states that a person confined in prison or the lawful custody of the police is not entitled to vote. The only exception is for those under **preventive detention**.
- Kuldip Nayar v Union of India (2006)**: The right to vote (or elect) is “pure and simple, a statutory right”.

About Right to Contest Elections:

- Representation of the People Act (RPA), 1951**: No provision in the RPA disqualifies undertrial prisoners or individuals in jail from contesting elections. Only those convicted of certain offences and sentenced to imprisonment for two years or more are disqualified.
- Constitutional Articles**: Articles 84 and 102 of the Constitution outline the qualifications and disqualifications for membership in Parliament, but they do not disqualify individuals merely based on their status as undertrials or detainees.

Why in News?

- Many undertrials fought in the recent Lok Sabha Elections

Proportional Representation

About First Past the Post System (FPTP):

- FPTP** is a **voting system** used in India for **Lok Sabha** and **State Legislative Assembly** elections.
- FPTP is also known as the **simple majority system**.
- The candidate who receives the **most votes in a constituency** is declared the **winner under the FPTP system**.
- Advantages**:
 - FPTP** is **simple** and **easy to understand**, especially in a large country like **India**.
 - FPTP** provides **stability to the government** since the winner’s party or coalition can have a majority in the legislature without receiving the majority of votes.
 - FPTP** facilitates **quick election outcomes**.
- Disadvantages**:
 - In comparison to their **vote proportions, political parties' seat counts can differ**.
 - A party that **received fewer votes than others** may occasionally yet **win a majority of seats**.

About Proportional Representation (PR):

- Under the PR system **parties are guaranteed to obtain seats** in proportion to their vote share.
- The most popular type of proportional representation is the “**party list PR**” system, in which people vote for parties rather than individuals.



- **Advantages:**
 - Ensures fairer representation for smaller parties.
 - Reflects diversity of voter preferences.
 - Reduces wasted votes.
- **Disadvantages:**
 - Can lead to more fragmented legislatures.
 - Complexity may confuse voters.
 - Coalition governments may be more common.

Ideas to replace FPTP:

- **Mixed Member Proportional Representation (MMPR)** provides stability and proportionate representation by combining FPTP with proportional representation.
- Using the widely utilized “**party list PR**” system, **voters cast their ballots for political parties rather than individuals**.
- **Use in India:** Given India’s federal structure, PR would ideally function at the State or Union Territory level if it were adopted there.
- **International Practices:** Countries like **Germany** and **New Zealand** use **MMPR**.

Why in News?

- The recent Lok Sabha elections have brought focus to the electoral systems used in India.

NOTA

About None of the Above (NOTA):

- **NOTA** is an electoral choice available on ballots and Electronic Voting Machine (EVM) that allows **voters to reject all candidates**.
- The use of NOTA in direct elections for the **Lok Sabha** and **State Assemblies** was **mandated by the Supreme Court** in the **2013 PUCL v. Union of India case**.
- **Significance:** Aims to improve **democratic expression and accountability**.

Does NOTA Vote Count?

- Votes marked as **NOTA are counted but considered “invalid”** according to the **Election Commission**.
- Even if NOTA receives the highest number of votes in a constituency, the candidate with the second-highest number of votes is declared the winner.
- As a result, **votes cast to NOTA do not affect the results of elections**.

Why in News?

- In the 2024 Lok Sabha, **less than 1%** of voters in India chose the **NOTA option**, the lowest share since it was first used in the 2014 Lok Sabha polls.



Constitutional, Non-constitutional and Statutory Bodies

How is the CBI investigation different from that of the ED?

Comparative Analysis of CBI and ED Investigations in India:

	CBI	ED
Jurisdiction and Scope	<ul style="list-style-type: none"> Investigates corruption, economic offenses, and serious crimes. Functions under the Ministry of Personnel, Public Grievances, and Pensions. Operates under the Delhi Special Police Establishment (DSPE) Act, 1946. 	<ul style="list-style-type: none"> Focuses on enforcing economic laws and fighting financial crime. Operates under the Department of Revenue, Ministry of Finance. Functions under the Prevention of Money Laundering Act (PMLA), 2002, and the Foreign Exchange Management Act (FEMA), 1999.
Types of Cases	<ul style="list-style-type: none"> Corruption by public servants, financial frauds, organized crime, murders, and high-profile criminal cases. 	<ul style="list-style-type: none"> Money laundering, illegal foreign exchange transactions, financial frauds, and foreign exchange law violations.
Investigative Approach	<ul style="list-style-type: none"> Conducts thorough investigations with forensic analysis and interrogations. Has specialized wings like the Anti-Corruption Division and Special Crimes Division. 	<ul style="list-style-type: none"> Focuses on tracking money trails, identifying illegal assets, and uncovering financial transactions. Uses forensic accounting and financial analysis.
Authority and Powers	<ul style="list-style-type: none"> Can arrest, search, seize, file charge sheets, and conduct trials under the Code of Criminal Procedure (CrPC). 	<ul style="list-style-type: none"> Under PMLA, can attach and confiscate properties, arrest individuals, and conduct searches. Under FEMA, can impose penalties and act against foreign exchange violations.

Why in News?

- Recently Both the ED and CBI are investigating the alleged Delhi liquor scam, where the ED is investigating the alleged money trail and the CBI will have to prove corruption and bribe-taking by public servants.

FSSAI

About Food Safety and Standards Authority of India (FSSAI):

- It is a regulatory body for food safety and standards in India.
- 2008:** established by the Ministry of Health & Family Welfare under Food Safety and Standards Act, 2006.
- Headquarter:** New Delhi



Food Safety and Standards (Advertising and Claims) Regulations, 2018:

- The objective is to regulate claims made in advertisements related to food products.
- Defines permissible claims and prohibits misleading or false claims.
- Specifies labeling requirements for health claims and nutritional information.

Why in News?

- The **FSSAI** mandates that food businesses immediately **remove “100% fruit juice”** claims from labels and ads for reconstituted fruit juices.

National Testing Agency (NTA)

About National Testing Agency (NTA):

- It is an **autonomous agency** under the **Ministry of Education of India**.
- **2017:** Established to conduct entrance examination admissions and recruitment.
- **Functions of NTA: Developing Question Papers, Conduct Exams** for undergraduate and postgraduate admissions, and **Result Processing**.
- **Headquarter:** New Delhi.

Why in News?

- Recently, the Union government removed Subodh Kumar Singh as **NTA chief** hours after announcing an expert committee to **suggest exam changes and review the NTA**.

Centre-State Relations/Federalism

Kerala Assembly Passes Resolution to Rename ‘Keralam’

About Keralam:

- Kerala, known as Keralam in Malayalam, is a state on the Malabar Coast of India.
- It was formed on 1 November 1956.

Constitutional Process of Changing a State’s Name:

- A resolution proposing the name change is approved by the **state legislature**.
- The resolution is forwarded to India’s **president**.
- On the President’s recommendation, a **bill** is **presented in Parliament**.
- The Bill must be debated and passed by a **simple majority** in **both houses of Parliament**.
- Once passed, the bill receives the **President’s assent**, officially recognizing the name change.

Constitutional Provisions:

- **As per Article 3 of Indian Constitution:**
 - Form new states by separating or merging territories.
 - Increase or reduce the area of any state.
 - Alter the boundaries or names of states.
- **Conditions:**
 - The President must suggest a bill to implement these reforms.
 - A state’s legislature must be consulted on the Bill within a certain time frame if the changes have an impact on the state’s boundaries, territory, or name.
 - Parliament and the President are not bound by the state legislature’s recommendations.



Why in News?

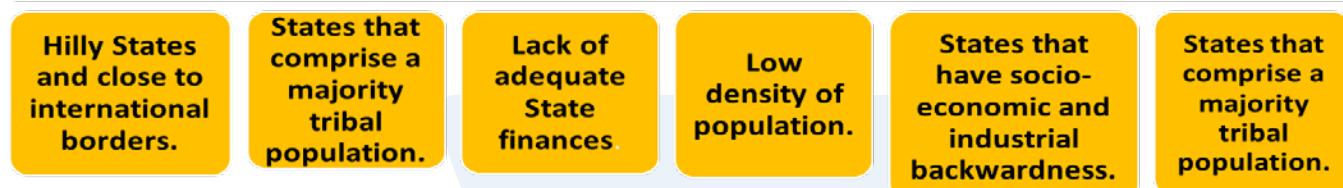
- Recently, the **Kerala Assembly**, in an unanimous decision, passed a resolution proposing a **Constitutional amendment to change the name of the State to “Keralam”**.

Special Category Status

About Special Category Status (SCS):

- Background of SCS:**
 - 1969:** Introduced on the **recommendation** of the **Fifth Finance Commission** chaired by **Shri Mahavir Tyagi**, it aimed to **benefit specific backward states**.
 - The **National Development Council’s (NDC)** approval of the **Gadgil formula in April 1969** formalized the **SCS concept**.
 - It was initially granted to **only three states: Jammu and Kashmir, Nagaland, and Assam**.

Criteria requirements for SCS



- Currently, the following states have the SCS:**
 - There are currently **11 states** in the country with the **SCS**: **Telangana, Assam, Nagaland, Himachal Pradesh, Manipur, Meghalaya, Sikkim, Tripura, Arunachal Pradesh, Mizoram, and Uttarakhand**.
 - Telangana** was the last state to receive **Special Category Status, granted in 2014**.
- Benefits for SCS**
 - These states benefited from up to 90% of central aid in the form of grants and 10% of loans for programs funded centrally.
 - For **Non-SCS**, the **Normal Central Assistance** was calculated **as 30% grant and 70% loan**.
- Following the recommendation of the **14th Finance Commission**, the Special Category Status **ceased to exist** and thus, **no further special category status has been granted to any state**.

Arguments in Favour of SCS to Andhra Pradesh	Arguments Against SCS to Andhra Pradesh
<ul style="list-style-type: none"> The bifurcation of states in Andhra Pradesh and Telangana in 2014 led to a loss of revenue and resources after the Telangana separation. Promise made during the bifurcation process. Economic challenges and developmental disparities. 	<ul style="list-style-type: none"> 14th Finance Commission recommendations against SCS categorization which will burden the government. Precedent setting: This may lead to similar demands from other states. Andhra Pradesh is relatively more developed than existing SCS states. The alternative special financial package offered by the central government.



Why in News?

- After the 2024 Lok Sabha elections, there is **increasing demand** for **Andhra Pradesh** to be granted **Special Category Status (SCS)**.

What is Cohabitation in a Political System?

About Cohabitation:

- A phenomenon where the executive branch is divided between two parties: one controlling the presidency and the other controlling the legislature or holding the prime ministership.
- This situation typically arises in semi-presidential systems, where both a president and a prime minister share executive powers.
- Advantages:**
 - Encourages bipartisan cooperation and reduces the risk of autocracy.
 - Forces different political parties to work together, which can lead to more balanced and moderate policies.
 - Reflects a broader spectrum of public opinion, as different political factions are represented in the executive branch.
- Challenges:**
 - This can lead to political gridlock if the president and prime minister cannot cooperate.
 - Conflicts may arise over jurisdiction and authority, particularly in areas where responsibilities overlap.
 - This may lead to instability if the parties involved have fundamentally opposing agendas.



Case of France:

- In the upcoming National Assembly elections in France, the President and Prime Minister may come from different parties.
- It highlights the complexities of a semi-presidential system where executive power is shared between opposing political factions, often leading to political tension and legislative challenges.

Indian Context:

- In India, cohabitation usually refers to a scenario where the central government (Union Government) is led by one political party, while one or more state governments are led by different or opposition parties.
- This can also extend to scenarios where the President of India, largely a ceremonial role, belongs to a different party than the Prime Minister, though this is less common and less impactful compared to the central-state dynamic.



Why in News?

- For the first time in 22 years, there's a possibility in France that the President and the Prime Minister will not be from the same political party, leading to the situation of Cohabitation.

Governance

Bharat Centre of Olympic Research and Education (BCORE)

About Bharat Centre of Olympic Research and Education (BCORE):

- The International Olympic Committee (IOC) officially recognized the BCORE at Rashtriya Raksha University as an **academic center promoting Olympic values**.
- It now operates within the global Olympic Studies and Research Centers (OSRCs) network of over 70 academic centers.
- BCORE promotes Olympism and the Olympic Movement in India through multidisciplinary research.

About Rashtriya Raksha University (RRU):

- It is an Institution of National Importance, is a pioneering National Security and Police University under the **Ministry of Home Affairs**, established by Act No. 31 of 2020.
- The University aims to become an academic-research-training ecosystem for national security and police.
- RRU focuses on professional national security and police education, research, and training with qualified faculty, committed human resources, and a global network for knowledge exchange.
- Headquarter: **Gandhinagar, Gujarat**.

Why in News?

- Indian Olympic Association President PT Usha stated that the recently inaugurated **Bharat Centre of Olympic Research and Education (BCORE)** at **Rashtriya Raksha University in Gandhinagar**, will be a hub for knowledge, innovation, and performance in Indian sports.

Aadhaar Enabled Biometric Attendance System (AEBAS)

About Aadhaar Enabled Biometric Attendance System (AEBAS)

- It is an initiative by the Government of India to improve attendance and transparency in government offices.
- It helps to track the attendance of government employees using Aadhaar authentication.
- Uses biometric devices linked to the Aadhaar database for authentication.

Why in News?

- The Union government of India is planning to take serious action against lax implementation of the Aadhaar Enabled Biometric Attendance System (AEBAS) and habitual tardiness among employees.



False Complaint Against Officials

More on News

- Jammu and Kashmir UT administration cautions against baseless complaints on officials, invoking IPC Section 182 and CrPC Section 195(1)(a) for prosecution.
- Penalties include up to six months' jail; officials making false claims face departmental action.

Why in News?

- Jammu and Kashmir UT Administration Implements Penalties for False Complaints Against Government Officials.

Hindi names to FIR leeway: Karnataka govt flags issues in new Criminal code

Karnataka's criticism to new Criminal law reforms:

- Introduction of Hindi titles for new laws and concerns about linguistic inclusivity, alongside opposition to Sanskrit titles.
- Failure to make rape laws gender-neutral, impacting legal recourse for male victims.
- Extension of police investigation time to 14 days before FIR registration, conflicting with existing mandates and legal procedures.
- Issues raised over provisions potentially stifling civil liberties, such as criminalizing hunger strikes.

Why in News?

- Recently the Karnataka government has highlighted several key issues on the New criminal laws reform.

Time for a Census

About Census:

- **Frequency:** Conducted every 10 years.
- **1872: (First Census)** Held in 1872, though the first synchronous census was in 1881.
- **2011: (Latest Census)**
- **2021:** Census was postponed due to the COVID-19 pandemic.
- It is Conducted under the Census Act of 1948.
- **Authority:** Office of the Registrar General and Census Commissioner, under the Ministry of Home Affairs.
- **Constitutional Provision:** Article 246 and Entry 69 of the Union List.
- **Phases:** Conducted in two phases:
 - House Listing and Housing Census
 - Population Enumeration

Why in News?

- Recently critics have argued that the 2021 Census in India is delayed for so long, that the government seems to be delaying it to fast-track the "delimitation" exercise in anticipation of the 2029 Lok Sabha elections.



Unlawful Activities (Prevention) Act, 1967

About Unlawful Activities (Prevention) Act, 1967 (UAPA):

- **1967:** Introduced to prevent unlawful activities, counter-terrorism, and safeguard India's sovereignty.
- The law applies to **both Indian and foreign nationals** across India.
- It confers the central government has power:
 - to declare specific organizations as unlawful associations, terrorist gangs, or terrorist organizations.
 - to search and seize properties and arrest individuals without a warrant based on mere suspicion of a threat to national security.
- **2004 amendment of UAPA:**
 - It includes the **Terrorist Act** in its list of offenses and allows **banning** organizations from terrorist activities.
 - Until 2004, **unlawful** activities referred to actions related to **secession** and **territory cession**.
- **2019 amendment of UAPA**
 - The amendment allows the **Central Government** to designate **individuals** as terrorists.
 - It allows the **Director-General, NIA** to approve **property seizures** during investigations.
 - It authorizes NIA officers of Inspector rank or above to **investigate terrorism cases**, previously limited to Deputy Superintendent or Assistant Commissioner of Police.

Why in News?

- The Delhi Lieutenant-Governor has approved the prosecution of author-activist Arundhati Roy and Kashmiri professor Dr. Hussain under the UAPA.

Hush-money

About Hush-money:

- Hush money is used to describe payment given to someone in return for their cooperation or silence, this is usually done to keep them from disclosing extremely embarrassing or damaging information.
- **Common Situations:** seen in cases of cover-ups, extortion, bribery, or as agreements to resolve legal conflicts.



Why in News?

- Former U.S. President Donald Trump is undergoing a trial related to payments made to adult film actress Stormy Daniels as part of a hush money agreement.



Probable MCQs

1. Which of the following statements regarding the Leader of Opposition (LoP) in India is/are correct?

1. The office of the LoP is mentioned in the Constitution of India.
2. The LoP receives a salary and allowances equivalent to the rank of a cabinet minister.
3. In the absence of an official LoP, the leader of the largest opposition party is automatically recognized as LoP.
4. The LoP plays a role in the appointment of the Central Vigilance Commissioner.

Select the correct answer using the codes given below:

- (a) 1 and 2 only
(b) 2 and 4 only
(c) 1, 2, and 3 only
(d) 2, 3, and 4 only

Ans: (b)

2. Which of the following statements regarding the Special Marriage Act (SMA), 1954 is/are correct?

1. The Act applies only to residents of India and not to Indian nationals living abroad.
2. The Act allows inter-faith or inter-caste couples to marry without giving up their religious identity or resorting to conversion.

Select the correct answer using the codes given below:

- (a) 1 only
(b) 2 only
(c) 1 and 2 only
(d) Neither 1 nor 2

Ans: (b)

3. Which of the following statements about statutory bail in India are correct?

1. It is also known as default bail under the Code of Criminal Procedure.
2. It applies only to offenses punishable with less than ten years of imprisonment.
3. This is a right to bail that occurs when the police fail to complete an investigation within a specified period.

Select the correct answer using the code given below:

- (a) 1 and 3 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3

Ans: (a)

4. Consider the following statements regarding Special Category Status (SCS):

1. The concept of SCS was introduced on the recommendation of the Fifth Finance Commission.
2. The National Development Council's approval of the Gadgil formula formalized the SCS concept.

Which of the above statements is/are correct?

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



Ans: (c)

5. With reference to National Human Rights Commission (NHRC), consider the following statements:

1. It is a statutory body, established under the Protection of Human Rights Act, 1993.
2. The chairperson of the NHRC is appointed by a committee that includes the Chief Justice of India as one of its members.
3. The chairperson holds office for a term of three years or until they reach the age of 65, whichever is earlier.

How many of the above statements is/are incorrect?

- (a) One only
- (b) Two only
- (c) All three
- (d) None

Answer: (a)

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Money, Banking, Finance & Insurance

Digital Payment Intelligence Platform

About Digital Payment Intelligence Platform:

- The objective is to leverage advanced technologies to reduce payment fraud in response to rise in fraudulent activity.
- The former MD and CEO of NPCI, A.P. Hota, has chaired a group that the RBI established to push this effort.
- This committee is anticipated to provide suggestions within two months after looking into a number of areas of developing a digital public infrastructure for the platform.

Why in News?

- Recently, the Reserve Bank of India (RBI) has proposed to set up a Digital Payment Intelligence Platform which will harness advanced technologies to mitigate payment fraud risks.

Preston Curve Postulate

About Preston Curve:

- It is a concept in economics that examines the relationship between life expectancy and per capita income.
- It was first proposed by American sociologist Samuel H. Preston in his 1975 paper “The changing relation between mortality and level of economic development”.

Other Important Curves:

- **Kuznets Curve:** According to this hypothesis, as an economy develops, market forces first increase and then decrease economic inequality.
- **Lorenz Curve:** Is a graphical representation of the distribution of income or of wealth.
- **Gini Coefficient:** Is a statistical measure of inequality that describes how equal or unequal income or wealth is distributed among the population of a country.
- **Laffer Curve:** It states that if tax rates are increased above a certain level, then tax revenues can actually fall because higher tax rates discourage people from working.
- **Phillips Curve:** It states that inflation and unemployment have a stable and inverse relationship.
- **Engel Curve:** It describes how the spending on a certain good varies with household income.

Why in News?

- Recently, the American sociologist Samuel Preston found that people living in richer countries generally have longer lifespans compared to those living in poorer countries.



Solid Waste Management Cess (SWM)

- **Solid Waste Management Cess:**
 - It is a levy **imposed by local governments** to fund the **management** and **treatment** of **solid waste**.
 - It generates funds for collecting, transporting, processing, and disposing of solid waste, ensuring sustainable waste management.
 - According to the **Solid Waste Management Rules, 2016**, ULBs are required to collect user fees or cess for SWM (Solid Waste Management (SWM) services.
- **Solid Waste Management Rules 2016:**
 - Generators' responsibilities have been established to divide waste into **three streams: Wet (Biodegradable), Dry (Plastic, paper, metal, wood, etc.) Domestic hazardous waste (diapers, napkins, empty containers, etc.)**
 - **Waste generators will need to pay:** a 'User Fee' to waste collectors, a 'Spot Fine' for Littering and Non-segregation.
 - Biodegradable waste should be processed, treated, and disposed of on-site through composting or biomethanation whenever possible.

Initiatives Related to Waste Management:

- **Bio-Medical Waste Management Rules, 2016**
 - It provides a regulatory framework for managing bio-medical waste generated in the country.
- **Plastic Waste Management (Amendment) Rules, 2022**
 - It aims to enhance plastic waste management practices, emphasizing extended producer responsibility (EPR) and sustainable solutions
- **Waste to wealth portal**
 - It is under the waste to wealth mission and acts as a common platform for technology providers, government stakeholders, and urban local bodies to seek relevant waste management solutions.
- **Waste to Energy**
 - Generating electricity and/or heat from waste through processes like incineration or gasification.
- **Project REPLAN**
 - It involves revising and adjusting an existing project plan when changes or unforeseen circumstances arise.

Why in News?

- Recently, the Bruhat Bengaluru Mahanagara Palike (BBMP) proposed a **Solid Waste Management (SWM) Cess** of ₹100 per month for each household.

Burp Tax: Tax on Methane Emissions from Livestock

About Burp Tax:

- It is a term for a tax on methane emissions from livestock.



- This tax aims to address environmental concerns related to greenhouse gas emissions from agriculture.
- Recently Denmark has announced to tax livestock farmers for greenhouse gases emitted by their cows, sheep and pigs from 2030.

Key Aspects

- **Methane Emissions:** Livestock farming is a significant source of methane, a potent greenhouse gas.
- **Environmental Impact:** The tax incentivizes farmers to adopt practices that reduce methane emissions.
- **Implementation:** For example, Some countries like **Denmark** are planning to implement a Burp tax to combat climate change.

Global Warming Potential (GWP) of Methane:

- **Time Horizon of 20 Years (GWP20):** Methane's GWP is approximately 84-87 times that of CO₂.
- **Time Horizon of 100 Years (GWP100):** Methane's GWP is approximately 28-36 times that of CO₂.

Why in News?

- Recently, New Zealand has removed the Burp Tax on livestock.

Tariff Hikes by Telecom Companies

About Tariff Hikes:

- Telecom operators target Average Revenue per User (ARPU) above INR 300 to sustain business models.
- With recent spectrum investments and 5G launches, they shift focus from market share to monetisation, marking a new phase in 5G service pricing.

Why in News?

- The three leading telecom operators of India i.e Reliance Jio, Bharti Airtel and Vodafone Idea (Vi) hiked tariffs to monetize 5G and boost the sector's financial health.

Balance of Payment & International Trade

S&P Global revises India outlook to positive

About S&P global Credit Rating Agency:

- Reflects upon the level of investment risk associated with the entities and their financial instruments.
- **Headquarter:** New York City, USA
- **Rating Scale:**
 - **Investment Grade:** Ratings from AAA to BBB- are considered investment grade, indicating relatively low credit risk.
 - **Non-Investment Grade (Junk):** Ratings from BB+ to D are considered speculative or non-investment grade, indicating higher credit risk.



Why in News?

- S&P GLOBAL Ratings revised up the outlook for India to ‘positive’ from ‘stable’, retained ‘BBB-’ long-term and ‘A-3’ short-term unsolicited foreign and local currency sovereign credit ratings.

India and the ‘managed care’ promise

About Managed Care Organizations (MCOs):

- Managed treatment Organizations (MCOs)** focus on **cost reduction** and **preventive treatment**, combining healthcare delivery and insurance under one roof.
- MCOs** began in the **1970s** in the US and have since spread throughout the world. They are beginning to be seen in India as a viable model for expanding **Universal Health Coverage (UHC)**.
- It aims to **streamline healthcare delivery**, **reduce hospitalizations**, and **control costs** by focusing on **preventive care**, making them a topic of interest in healthcare reform discussions.

Why in News:

- The **increasing use of health insurance, particularly Managed Care Organizations (MCOs)**, as a **modality for achieving Universal Health Coverage (UHC) in India**.

OPEC+ extends deep oil output cuts into 2025

About OPEC+:

- Grouping of 23 oil producing countries (OPEC and non-OPEC countries).
- 2016**: Established to coordinate and manage oil production to stabilize global oil markets.
- Members**: 13 OPEC countries plus Azerbaijan, Bahrain, Brunei, Kazakhstan, Russia, Mexico, Malaysia, South Sudan, Sudan, and Oman.

What is OPEC?

- It stands for the Organization of the Petroleum Exporting Countries.
- Aim**: to ensure the stabilization of oil markets to secure efficient, economic, and regular supply of petroleum to consumers.
- 1960**: Established in Baghdad, Iraq.
- Headquarter**: Vienna, Austria.
- Member Countries**: Algeria, Angola, Congo (Brazzaville), Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, United Arab Emirates (UAE) and Venezuela.

Why in News?

- OPEC+ agreed to extend most of its deep oil output cuts well into 2025, amidst rising production by the USA.

The High Cost of a Global Economic Decoupling

About Economic Decoupling:

- It refers to the process where two or more economies, which were previously interdependent, reduce their economic connections and dependencies, including trade, investment, and supply chain linkages.
- It represents a significant shift in global economic policies and relationships, leading to:



- **Regionalization, Technological Sovereignty, and Economic Realignment.**

Causes of Economic Decoupling:

- **Geopolitical Tensions:** US-China trade war.
- **National Security Concerns:** Dependence on hostile countries.
- **Economic Policies:** Protectionist measures and tariffs.
- **Technological Rivalry:** Competition in 5G, semiconductors, AI.

Mechanisms

- **Trade Barriers:** Tariffs, quotas, export controls.
- **Supply Chain Diversification:** Reducing dependence on specific regions.
- **Domestic Production:** Encouraging local manufacturing.
- **Investment Restrictions:** Limiting foreign investments in strategic sectors.

Implications

- **Economic:** Higher production costs, reduced trade volumes, supply chain reorganization.
- **Political:** Strained diplomatic relations, economic blocs formation.
- **Technological:** Innovation drive for self-sufficiency.
- **Social:** Job losses in trade-dependent industries.

Case Studies

1. **US-China Decoupling:** Measures include tariffs, export controls on technology, restrictions on Chinese companies like Huawei, and incentives for US companies to relocate manufacturing back to the US or other countries.
2. **EU's Strategic Autonomy:** Efforts to reduce dependence on the US and China in areas like technology, defence, and critical raw materials.

Why in News?

- The US has announced to put tariffs on a range of Chinese imports and has refuelled fears of a new phase of decoupling in the world economy.

Sectors of the Economy, GDP, Inflation

Minimum Support Prices

About MSP: Minimum Support Price

- To ensure fair prices to farmers
- **1966-67:** introduced by Central government
- CACP (Commission for Agricultural Cost & Prices) recommends MSP for 23 crops before the sowing period each year
- Fair and Remunerative price for Sugar is also declared.
- MSP doesn't have any lawful stature.
- **Crops covered under MSP:**
 - **KHARIF CROPS (14):** Paddy, Jawar, Bajra, Ragi, Maize, Arhar, Moong, Urad, Cotton, Ground Nuts, Sunflower, Soyabean, Sesame and Nigerseed
 - **RABI CROPS (7):** Wheat, Barley, Gram, Masur, Rapeseed & Mustard, Safflower and Torai
 - **CALENDAR YEAR CROPS (4):** Copra, De-husked Coconut, Jute and Sugarcane (FRP)



Why in News?

- Amid Agrarian distress from past years, Farmers have been demanding legislation providing statutory backing for minimum support price (MSP) of crops.

Direct Seeding of Rice Method

About Direct Seeding of Rice Method (DSR):

- It is also known as '**broadcasting seed technique**', or 'tar-wattar' technique.
- In this approach, seeds are directly drilled into the fields, eliminating the need for nursery preparation and transplantation.
- It reduces water requirements by about 15%, with water logging occurring only after a month, benefiting areas with delayed rainfall.
- With the help of drum seeders in this method, only two laborers are needed per acre compared to 25-30 in traditional methods.
- The DSR method has gained traction in regions including Punjab, Telangana, and Andhra Pradesh.

Why in News?

Punjab state has been actively promoting the direct seeding of rice (DSR) to reduce water use by 15% to 20%.

Global Carbon Project Report on Nitrous Oxide (N₂O)

About Nitrous Oxide (N₂O):

- N₂O is a **colourless, odorless**, and **non-flammable** gas that is also referred to as '**laughing gas**' or '**happy gas**'.

Impact of N₂O:

- N₂O is a potent **greenhouse gas**, with a global warming potential **298 times greater than carbon dioxide**.
- Contributes to **ozone layer depletion**.
- Deposited nitrous** oxide can **cause nitrate accumulation in water**, leading to **eutrophication**.
- Long-term high N₂O exposure can affect **human health by causing respiratory problems** and assisting in the production of smog.

Key Point of the Report:

- India is the world's second-largest emitter of nitrous oxide (N₂O) after China, accounting for 11% of global man-made emissions in 2020.

Why in News?

- As per the report recently released by the Global Carbon Project, nitrous oxide rose 40 per cent between 1980 and 2020.



QCO Relaxation

About Quality Control Orders (QCO):

- QCOs is a regulatory measure issued by governments to ensure that certain products meet specified quality standards before they are imported, sold, or used domestically.
- QCOs aim to **safeguard consumer interests, promote product quality, and ensure compliance** with regulatory standards.
- QCOs can apply to various products and **industries, ranging from electronics and textiles to food** and pharmaceuticals.
- QCOs can affect trade dynamics, market access for foreign products, and consumer confidence in domestic and imported goods.
- Following stakeholder consultations, **QCOs are issued by various central government ministries.**

Why in News?

- Recently, the **Textile Industry** has welcomed the **relaxation** of the mandatory **Quality Control Order (QCO)** for polyester fiber, filament yarn, and spun yarn imported under various schemes.

Infrastructure

World's Highest Railway Bridge: Chenab Bridge



About Chenab Bridge:

- It is the **highest arch railway bridge in the world**, connecting Sangaldan in Ramban district to Reasi.
- The bridge, part of the Udhampur-Srinagar-Baramulla Rail Link (USBRL) project, stands 35 meters taller than the Eiffel Tower, spanning 1315 meters with a 467-meter arch.

About Chenab River:

- It is a **Left Bank Tributary of River Indus**.
- It flows west through Jammu and Kashmir, between **Siwalik Range** and **Lesser Himalayas**.
- Turning southwest, it enters Pakistan and descends into the broad alluvial lowlands of Punjab province.



Why in News?

- Recently, the World's highest railway bridge on the **Chenab River** in Jammu and Kashmir had its first train run successfully.

India's Rooftop Solar (RTS) Programme

What is the Rooftop Solar (RTS) Programme?

- 2014:** launched and focuses on expanding rooftop solar installed capacity in the residential sector.
- It provides Central Financial Assistance and incentives to distribution companies (DISCOMs).
- Objective:** To achieve 40 GW of rooftop solar installed capacity by March 2026.
- 2024: Pradhan Mantri Surya Ghar Muft Bijli Yojana** announced, aims to install RTS systems in one crore households, providing up to 300 units of free electricity monthly.

Other Government Initiatives for Solar Power:

Scheme	Description
Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM)	Covers grid-connected renewable energy power plants (0.5 – 2 MW), solar water pumps, and grid-connected agriculture pumps.
Scheme for Development of Ultra Mega Renewable Energy Power Parks	Develops Ultra Mega Renewable Energy Power Parks (UMREPPs) under the existing Solar Park Scheme.
National Wind-Solar Hybrid Policy, 2018	Aims to promote large grid-connected wind-solar PV hybrid systems for optimal use of wind and solar resources, transmission infrastructure, and land.
Atal Jyoti Yojana (AJAY)	Launched in September 2016 to install solar street lighting systems in states with less than 50% household grid power coverage (as per Census 2011).
Jawaharlal Nehru National Solar Mission	Aims to establish India as a global leader in solar energy by creating favorable policy conditions for its nationwide deployment.

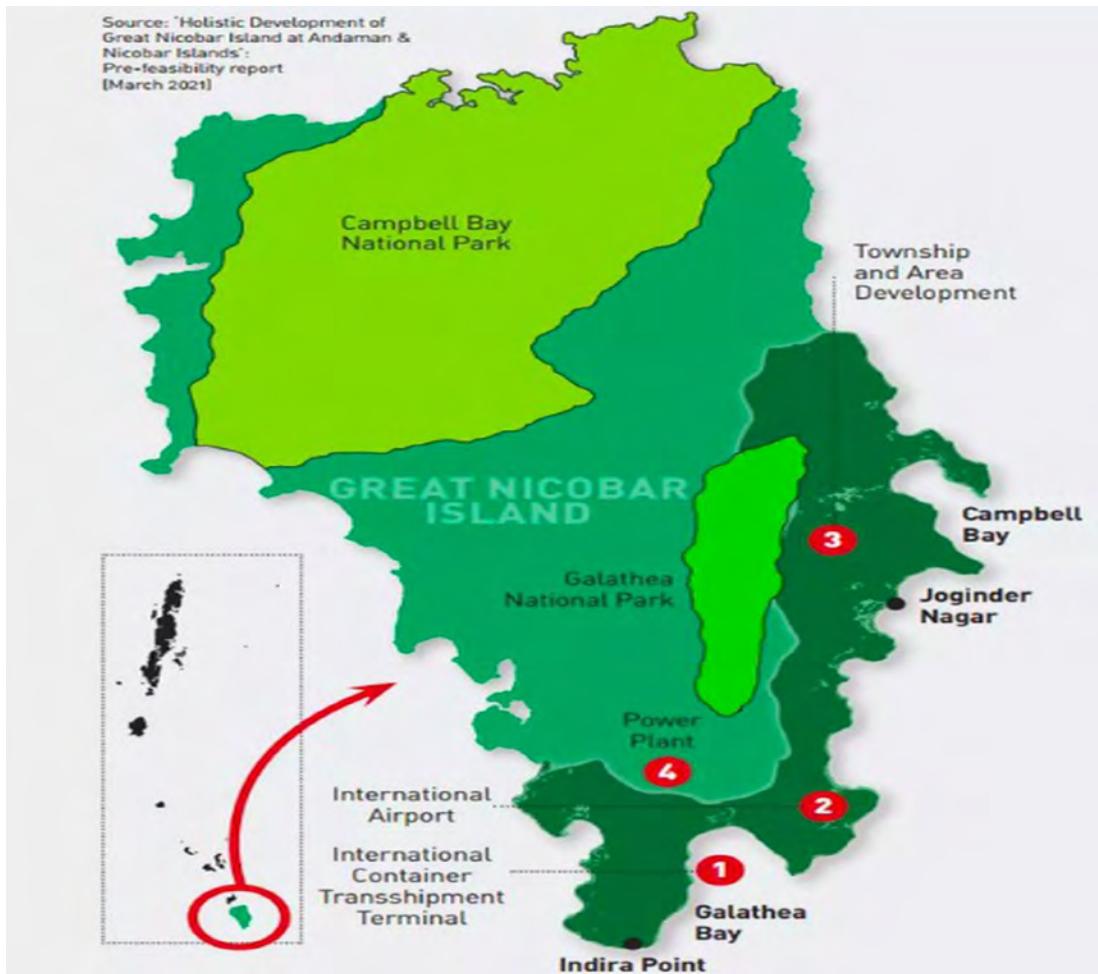
India's updated NDC aims to reduce GDP emissions intensity by 45% from 2005 levels and achieve 50% cumulative electric power from non-fossil fuels by 2030, with the current capacity at 186.46 GW (43.81% of the total).

Why in News?

- The installed **Rooftop Solar (RTS) capacity** in India **increased by 2.99 GW** in 2023–2024, according to the Ministry of New and Renewable Energy.



Great Nicobar Island Infrastructure Project



About the Great Nicobar Island Infrastructure Project:

- The mega project implemented by **Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO)**, includes an **International Container Trans-shipment Terminal (ICTT)**, a greenfield international airport, a township, and a gas and solar-based power plant.
- The project aims to enhance India's maritime economy and tourism by leveraging the island's strategic location.

About Great Nicobar:

- Located at the southernmost tip of the Nicobar Islands in the Indian Ocean, it is the largest island in the Nicobar group, covering approximately 1045 square kilometers.
- Known for its rich biodiversity, it includes the Great Nicobar Biosphere Reserve with unique flora and fauna.
- **Tribes:** Nicobarese and the Shompen.

Why in News?

- Several people have raised concerns about the proposed Rs 72,000-crore **infrastructure upgrade on Great Nicobar Island**, citing threats to indigenous inhabitants and the fragile ecosystem.



Does Inequality lead to growth?

About Negative Economic Effects of Inequality:

- Monopoly power concentration among capitalists may have **adverse effects on growth, welfare, and consumption.**
- Monopolies raise prices and profit margins, which **lowers real wages and purchasing power** and, in turn, lowers output and investment.

About Impact of Inequality on Growth:

- Higher pricing and profit margins in monopolistic economies result in **lower real wages and consumption**, which **reduces the multiplier effect** of investment on income growth.
- Income inequality **limits consumers' purchasing power** and hampers economic growth.

About Redistribution and its Effects:

- Some argue that redistribution measures may **discourage entrepreneurs** since they provide fewer incentives for saving and investing.
- However, taxing wealth has no effect on investment because investment is based on hopes for future profits rather than actual riches.
- The multiplier effect can be **enhanced by redistribution by boosting purchasing power** and encouraging investment in areas with high demand.

About Thomas Piketty's Proposal:

- Implementing a **basic income and taxing billionaire wealth**, as suggested by Thomas Piketty, could promote innovation and entrepreneurship.
- Redistribution can **reduce inequality and promote a healthy economy** when combined with other policy initiatives.

Why in News?

- Researchers from the Paris School of Economics have highlighted that **modern India exhibits greater inequality than during colonial times.**

Global Gender Gap Index

About Global Gender Gap Index

- It evaluated gender parity among four main dimensions: Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Political Empowerment.
- Key Findings of 2024 Report**
 - The global gender gap score for all 146 countries in this edition is 68.5%.
 - Top-Ranking Countries:** Iceland, Norway, Finland, and Sweden.
 - India is ranked **129** in this year's index, reflecting a slight regression compared to the previous edition.
 - India ranks the third-lowest among South Asian economies, performing worse than Bangladesh, Nepal, Sri Lanka, and Bhutan.



Why in News?

- Recently the World Economic Forum released its Global Gender Gap Index India slipped two places to 129th place, while Iceland retained its top position.

Probable MCQs

1. Consider the following statements regarding the Global Gender Gap Index 2024:

- The Global Gender Gap Index is published annually by the International Monetary Fund.
- The Index measures gender-based gaps in four key areas including Economic Participation and Opportunity, Educational Attainment, Health and Survival, and Women Empowerment.
- The Global Gender Gap Index 2024 shows that no country has yet achieved full gender parity.

Which of the statements given above is/are incorrect?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2, and 3

Answer: (a)

2. Consider the following statements regarding digital payments in India:

- Digital payments are primarily governed under the Payment and Settlement Systems Act, 2007.
- The National Payments Corporation of India is the primary regulator responsible for addressing customer complaints related to digital payment services.

Which of the statements given above is/are correct?

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

Ans: (a)

3. Solid Waste Management (SWM) Cess in India is levied by:

- (a) Gram Panchayats
- (b) Urban Local Bodies
- (c) State Pollution Control Boards
- (d) Registered Resident Welfare Associations

Ans: (b)

4. Consider the following statements regarding Quality Control Orders and the Bureau of Indian Standards:

- Quality Control Orders are issued by the Bureau of Indian Standards to ensure the quality and safety of products sold in India.
- The Bureau of Indian Standards operates under the Ministry of Consumer Affairs, Food and Public Distribution.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only



- (c) Both 1 and 2
 - (d) Neither 1 nor 2
- Ans: (b)**

5. Consider the following statements regarding Economic Decoupling:

1. Economic decoupling refers to the process where countries reduce their economic interdependence and trade with each other.
2. Economic decoupling leads to increased economic growth for countries that have a high manufacturing base.

Which of the above statements is/are correct?

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

Ans: (a)

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IR IN NEWS: JUNE (2024)

INTERNATIONAL ORGANISATION, CONFERENCES, AGREEMENTS DEFENSE AND INTERNAL SECURITY

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But a unipolar order is likely to restrict the diplomatic elbow room available and thus the ability to avoid the costs associated with pursuing a particular policy.

In effect, the practice of strategic autonomy is a function of the power capabilities possessed by a state and of the structure of the international system in a particular historical era.

While strategic autonomy is the ideal that every state aspires to, most are unlikely to either possess the necessary power capabilities or enjoy a favourable international environment to practice it.

If politics is the art of the possible, then political wisdom demands that the best not be made the enemy of the good.

Chat

Cyra: On which topic sir

Bhavini: Sir is topic pe bhi hui thi is line pe hi

Vivek: Right sir

Pooja: Mujhe lagta hai true debate dikhate hi nahi hai news me....only bahas no conclusion

Cyra: Debate :)

Mayank Pra...: Sir u really [JUMP TO LATEST](#)

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International organisation, Conferences, Agreements

Palestine UN Membership



About Norms and Politics of UN Membership:

- To be eligible for membership, a state must be a “peace-loving” one and be able to uphold its charter.
- Political factors, the consent of the five UNSC permanent members (P5)—determine the admittance procedure’s bar, frequently hindering membership applications.

About India's Position and Historical Context:

- In keeping with its Nehruvian-era ideal of non-discrimination in UN membership, India supported the UNGA resolution supporting Palestine’s admission.
- India has continuously supported nations’ admission to the UN, including Pakistan’s admission to the UN in 1947 and China’s representation in 1971, despite past disputes.



How does a country become a Member of the United Nations?

- The country applies to the UN Secretary-General. The UN “is open to all peace-loving States that accept the obligations contained in the United Nations Charter and, in the judgment of the Organization, can carry out these obligations”.
- The **Security Council** considers the application. **Required: Nine affirmative votes from the Security Council and no veto or negative vote from any of the five permanent members.**
- If an application passes through the Security Council, it goes to the **General Assembly**. **Required: Resolution for membership must get two-thirds votes.**
- Membership becomes effective on the date the resolution for admission is adopted.

Why in News?

- During **Israel's Gaza conflict**, **Palestine has submitted a renewed application to join the UN**.

Swiss Peace Summit

About Swiss Peace Summit:

- It was organised in June 2024 in a hope for an end to the war between Russia and Ukraine.
- India opted out mentioning the need for mutually acceptable peace options after Russia refused to join this summit.
- Other participants agreed with the final joint statement that laid out a “Path to Peace,” emphasizing nuclear safety, food security, and humanitarian concerns.

Why in News?

- With Russia not attending the Swiss summit on peace in Ukraine and calling it a “waste of time”, India decided to **not sign it**.

NATO Appointed New Head

About North Atlantic Treaty Organization (NATO)

- **1949**: formed with the signing of the Washington Treaty.
- In 2023, Finland joined as 31st member.
- **Aim**: To protect member states’ freedom and security through political and military cooperation.
- **Article 5 of the Washington Treaty** underscores the alliance’s commitment to collective defense, treating an attack on one member as an attack on all.
- **Headquarters**: Brussels, Belgium.

Why in News?

- Recently NATO has appointed outgoing Dutch Prime Minister Mark Rutte as the next head.



Group of Seven (G7)



About Group of Seven (G7):

- **1975:** Established to address **economic challenges, security issues, and other global concerns.**
- Members: **Canada, France, Germany, Italy, Japan, United Kingdom, United States.**
- Aim: To foster **cooperation and stability in international affairs.**

G7 Timeline



Outcome of Recent G7 Summit

- Promotion to G7 PGII (Partnership for Global Infrastructure and Investment)
- Support and Promotion to India-Middle East-Europe Economic Corridor (IMEC)
- G7 supported the Lobito Corridor (Angola to Zambia), Luzon Corridor (Philippines), and Middle Corridor (Trans-Caspian International Transport Route).
- The Great Green Wall Initiative: Aimed at combating desertification and land degradation in Africa's Sahel region.



Why in News?

- Recently the Prime Minister of India attended the 50th G7 summit in Italy, India was invited for the 11th time.

BRICS Expansion



About BRICS:

- It is a grouping of **Brazil, Russia, India, and China** officially established as a bloc in 2009; **South Africa joined in 2010**.
- BRICS was established as an **economic forum to reshape the multilateral system** and **promote a fairer global order**.
- BRICS, with China and India comprising 86%, represents over 45% of the world's population, 36% of global GDP, and 25% of world trade.
- Russia** assumed the **Chairmanship** of BRICS on **1st January 2024**.
- The New Development Bank (NDB)** was formally known as the **BRICS Development Bank established in 2014**.
- Headquarter:** Shanghai, China.

Why in News?

- India welcomed **Egypt, Iran, UAE, Saudi Arabia, and Ethiopia joining BRICS** as their representatives attended their **first key meeting hosted by Russia**.
- Argentina was also invited to join, but President Javier Milei pulled out.



Russia-North Korea Mutual Defence Pact

About Russia-North Korea Mutual Defence Agreement:

- It talks about cooperation on a wide range of issues, including mutual military support, and unspecified technological assistance.
- **Article 4 of the agreement:**
 - In case any one of the two sides is put in a state of war by an armed invasion from an individual state or several states, the other side shall provide military and other assistance with all means in its possession without delay.
 - It would be done as per the provisions of **Article 51 of the UN Charter** and the laws of the DPRK [North Korea] and the Russian Federation.



Why in News?

- Recently, Russian President Vladimir Putin's first visit since 2000 to North Korea culminated in a security agreement between the two nations.

Indian Peacekeeper gets U.N. Award on Gender Advocacy

About Military Gender Advocate year Award:

- The Award is observed as the International Day of UN Peacekeepers.
- It recognises the efforts of a **military peacekeeper** in promoting the **principles of the 2000 Security Council** resolution that calls for **protecting women and girls from conflict-related sexual violence** and sets gender-related responsibilities for the UN.
- Major Radhika Sen is the **second Indian peacekeeper** to receive the honour after **Major Suman Gawani**, who served with the **UN Mission in South Sudan** and received the award in **2019**.



About U.N. Peacekeeping Mission:

- **1948:** Established when the Security Council authorized the deployment of military observers to the Middle East.
- It is a collaborative effort between the **Department of Peace Operations** and the **Department of Operational Support**.
- Its goal is to **help host countries transition from conflict to peace**.
- India has been among the largest troop-contributing countries to the U.N. peacekeeping missions.



- In 2007, India became the first country to deploy an all-women contingent to a U.N. Peacekeeping mission

Why in News:

- Recently, Major Radhika Sen, an Indian peacekeeper in the Democratic Republic of the Congo (DRC), won the prestigious 2023 United Nations Military Gender Advocate of the Year Award.

International Law on Mercenaries

About Mercenaries:

- Mercenaries are hired individuals who fight in conflicts for a party other than their state.
- Their primary motivation is personal gain or financial reward, rather than ideological or national allegiance.
- Under international humanitarian law (IHL), mercenaries are defined by specific criteria outlined in Article 47 of Additional Protocol I to the Geneva Conventions.
 - The Geneva Conventions are international treaties that establish humanitarian standards in wartime, aiming to protect civilians, non-combatants, and individuals no longer participating in hostilities.
 - Mercenaries are recruited locally or abroad to fight in an armed conflict and are neither nationals nor members of the armed forces of a party to the conflict.

Why in News?

- Recently, the Ministry of External Affairs (MEA) acknowledged the tragic loss of two Indian nationals who were recruited as mercenaries by the Russian Army amid the ongoing conflict between Russia and Ukraine.

Defense and Internal Security

Narcotics Drugs in Parcel Scam

More About News:

How the Scam Works



-  **Impersonation:** Scamsters contact you and pose as officials from Customs Department/Police
-  **False Claims:** They inform victim that illegal drugs have been found in your name
-  **Pressure Tactics:** Scamsters use fear tactics, threatening legal action or arrest
-  **Demand of Money:** Victims are coerced into sending money or revealing personal information to avoid fictitious legal consequences.
-  **Scam is there:** Once money is paid, the scamsters disappear

Why in News?

- The Union Finance Ministry's Revenue Department issues a cautionary advisory regarding the 'Narcotics Drugs in Parcel' scam. CBIC warns against Customs officials contacting for private payments. Report scams promptly via www.cybercrime.gov.in or helpline 1930.



Exercise- 'Tarang Shakti'

About Tarang Shakti:

- The exercise is set to be the **largest air exercise** ever conducted in India.
- The aim is to enhance **interoperability and promote peace** among the participating air forces.
- **Strengthen military cooperation** among participating air forces.
- The exercise will cover various **focus areas** and training scenarios: **Fighter Operations, Transport Aircraft Operations, and Joint exercises.**
- **List of Exercises:**

Name of Exercise	Name of Country
Tarang Shakti / Vayu Shakti / Vijay Prahar	India
Red Flag / Blue Flag / Cope India	USA
Ex-Desert Knight / Desert Eagle	UAE
Garuda	France
Eastern Bridge	Oman
Pitch Black	Australia

Red Flag Exercise

- It is organized by the United States Air Force, this exercise is renowned as one of the foremost and most advanced multilateral air combat training exercises.
- It facilitates participation from multiple nations to enhance interoperability and combat readiness.
- In its second edition held in Alaska, India has deployed eight Rafale fighters, supported by IL-78 mid-air refuellers and C-17 Globemaster aircraft.

Why in News?

- The **Indian Air Force** will organize a **first multinational aerial exercise called Exercise Tarang Shakti**, in which 10-12 of the world's top air forces will take part.

UAV 'Nagastra-1': First Indigenous Man-Portable Suicide Drone





About UAV 'Nagastra-1':

- Man-portable suicide drone, also known as a loitering munition.
- **Purpose:** Designed for precision strikes on enemy personnel, light vehicles, and strategic targets.
- If the mission is canceled, the UAV can be called back and make a soft landing through a parachute recovery mechanism.
- It has more than 75% indigenous parts.
- **Key features:**
 - **Kamikaze Mode:** Nagastra-1 neutralizes threats with GPS-enabled precision strikes, accurate up to 2 meters.
 - **Endurance:** Weighing 9 kg, this man-portable fixed-wing electric UAV can fly for 30 minutes.
 - **Range:** It offers a 15 km range with man-in-loop control and extends up to 30 km in autonomous mode.

Why in News?

- The Indian Army has adopted the Nagastra 1, developed by Economic Explosives Limited (EEL), marking it as the first indigenous man-portable suicide drone.

RudraM-II air-to-surface missile flight test successful

About RudraM-II Missile:

- It is an **indigenously-developed solid-propelled air-launched missile** system meant for **Air-to-Surface** role to neutralise many types of enemy assets.
- Developed by: **Defence Research and Development Organisation (DRDO)**.
- **Capacity:** It has a range of **300 km** and has an additional **Imaging Infrared (IIR) seeker**.



Why in News?

- Recently, the **Defence Research and Development Organisation (DRDO)** successfully flight-tested the **RudraM-II**.

Govt directs telcos to block incoming international spoof calls

About Calling Line Identity (CLI):

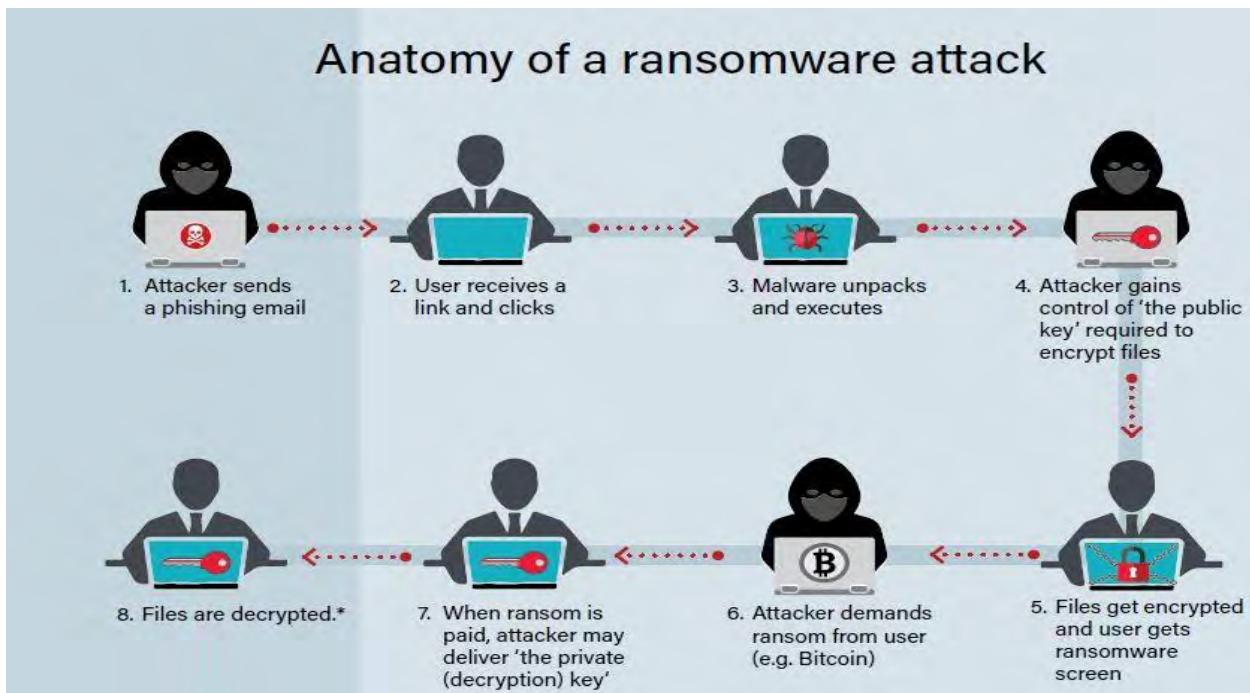
- CLI refers to the telephone number of the calling party.
- **CLI Services:**
 - **Caller ID Spoofing:** the practice of altering the CLI to display a different number, often used in legitimate contexts like customer service but also exploited for fraudulent activities.
 - **Enhanced Caller ID:** Services that provide additional information such as the caller's name or business identity, not just the number.

Why in News?

- The government has directed telecom operators to block all incoming international spoofed calls displaying Indian mobile numbers, by manipulating the calling line identity (CLI).



India's First joint doctrine for Cyberspace Operations



About Cyberspace Warfare:

- Cyber warfare refers to **use of force by nation-states, international organizations, or non-state actors** to disrupt, destroy, or harm another country's computer or information network infrastructure.

Types of Cyber Warfare:

- **Cyber Sabotage:** destroying or deliberately interfering with critical infrastructure.
- **Malware Attacks:** gaining access to computers and damaging them with malicious software.
- **Cyber Espionage:** Gathering private information in secret.
- **Denial-of-Service (DoS) Attacks:** Traffic overloading systems in order to cause service disruptions.
- **Social Engineering:** manipulating others in order to obtain information or access without authorization.

Why in News?

- India's **Chief of Defence Staff**, has issued the nation's **first joint doctrine for cyberspace operations**, providing guidelines for modern military operations.

Probable MCQs

1. **What is the main purpose of the RudraM-II missile system?**
 - (a) Anti-aircraft defense
 - (b) Submarine warfare
 - (c) Air-to-Surface missile
 - (d) Ballistic missile interception

Ans: (c)



2. Consider the following Statements:

1. India has been among the largest troop-contributing countries to UN peacekeeping missions.
2. India is the first country to deploy an all-women contingent to a UN Peacekeeping mission.

Which of the following statements is/are correct?

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

Ans: (c)

3. What does CLI stand for in the context of telephone communications?

- (a) Call Location Identifier
- (b) Calling Line Identity
- (c) Central Line Information
- (d) Caller List Indicator

Ans: (b)

4. Consider the following statements regarding the UAV 'Nagastra-1':

1. Nagastra-1 is an indigenous UAV developed by India with capabilities for autonomous surveillance.
2. It can be recovered through a parachute mechanism if the mission is cancelled.

Which of the statements given above is/are correct?

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

Ans: (c)

5. Consider the following pairs regarding air exercises conducted by India:

Air Exercise	Country
Garuda	France
Eastern Bridge	UAE
Pitch Black	Australia

Which of the pairs given above is/are correctly matched?

- (a) 1 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2, and 3

Ans: (b)



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GEOGRAPHY AND ENVIRONMENT IN NEWS: JUNE (2024)

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Physical Geography

Volcanism on Venus

About Venus:

- Venus is often referred to as the “**Evening Star**” or “**Morning Star**” because of its **bright appearance** just after sunset or just before sunrise.
- It is the **second brightest** natural object in the night sky **after the Moon**.

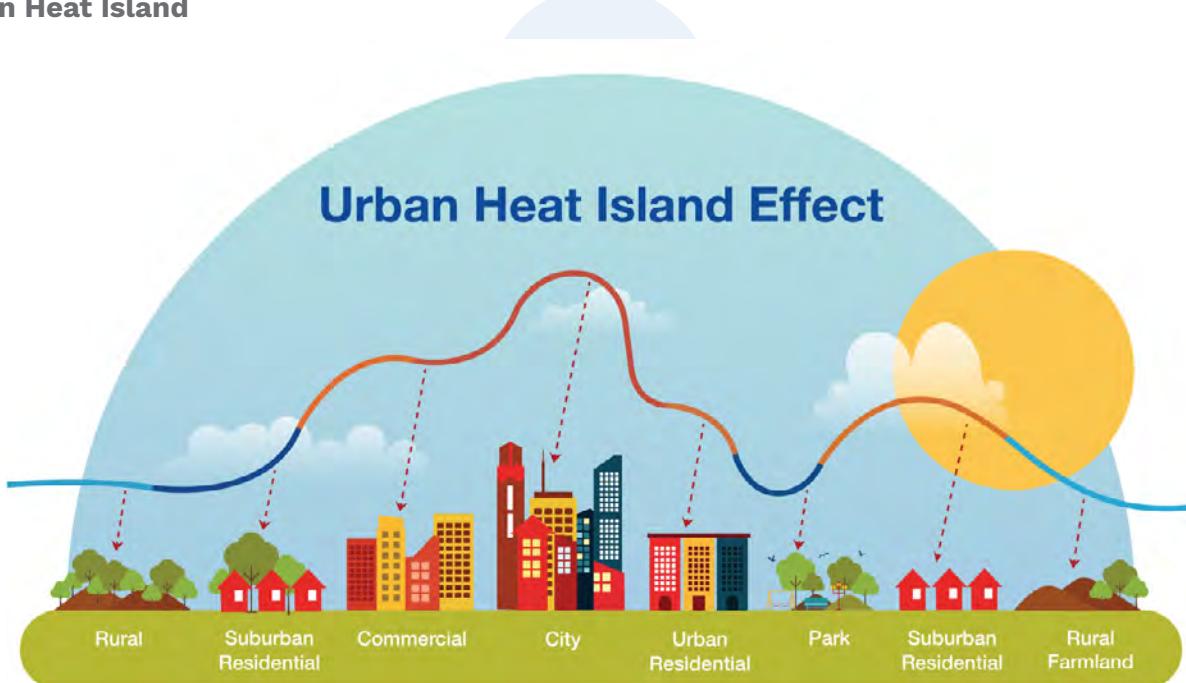
Recent Finding on Venus:

- Two new volcanic sites: **Sif Mons** and **Niobe Planitia**,
 - Sif Mons** is located in the region known as **Eistla Regio**, which is about **300 km wide**.
 - The other site is a large **volcanic plain** in the region called **Niobe Planitia**, which is about **45 Sq.km** of rock in the observed lava flow.
- Both Sif Mons** and the volcanoes in **Niobe Planitia** are identified as **shield volcanoes**.
 - Shield volcanoes are characterized by **broad, gentle slopes** formed by **low-viscosity lava flows**.

Why in News?

- A recent analysis of radar imagery obtained by **NASA's Magellan** probe indicates that there are **evidence of volcanic activity at two locations on Venus**.

Urban Heat Island





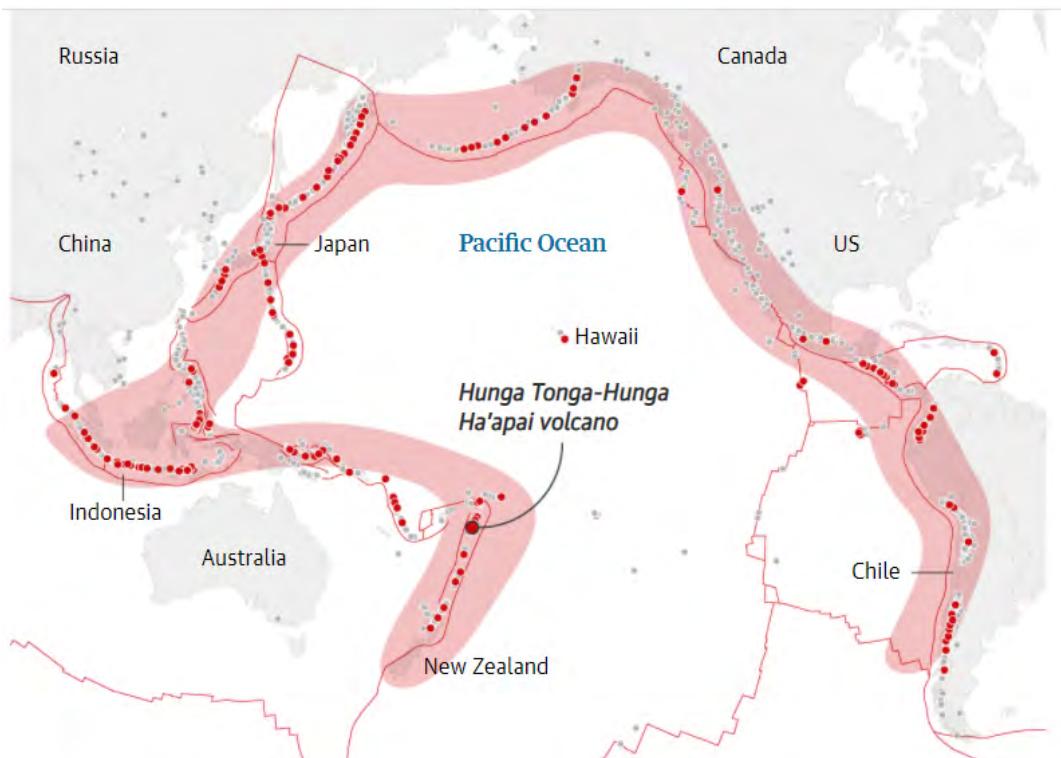
About Urban Heat Island (UHI) Effect:

- UHI occurs when **urban areas experience higher temperatures than their surrounding rural areas**.
- UHI result from **complex interactions between built environments, natural factors, and human activities**.
- The UHI impact increases by **concrete buildings, paved roads, a dearth of green space, and waste heat from air conditioners** and other appliances.
- **Heat Action Plans (HAP)**: India has HAPs at the national, state, and district levels to lower heatwave-related morbidity and mortality.

Why in News?

- According to a recent **World Meteorological Organization (WMO) report**, **2023 was by far the hottest year ever**, with **global average temperatures reaching 1.45° C** higher than pre-industrial levels. The Indian sub-continent has seen heatwaves as a result, worsening the effects of the climate. The **Urban Heat Island (UHI) effect** has been most noticeable in cities like Chennai.

Hunga Tonga Volcano



About Hunga Tonga:

- It is an **undersea stratovolcano** consisting of two small uninhabited islands, **Hunga-Ha'apai** and **Hunga-Tonga** in the **Tongan archipelago** in the **southern Pacific Ocean**.
- The volcano is part of the highly **active Tonga–Kermadec Islands volcanic arc**, a **subduction zone** extending from **New Zealand north-northeast to Fiji**.
- It was formed as a **result of the subduction of the Pacific Plate beneath the Indo-Australian Plate**.
- It has **erupted regularly** over the past few decades.



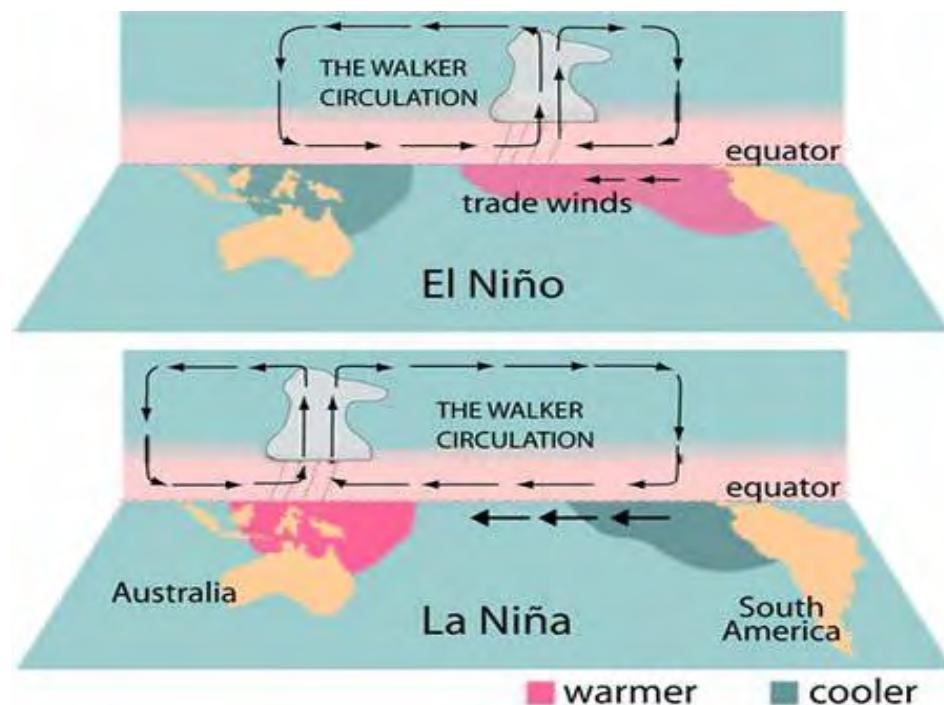
About Stratovolcano:

- It is a **tall, steep**, and **cone-shaped** type of volcano.
- Stratovolcanoes have relatively **steep sides** and are **more cone-shaped** than **shield volcanoes**.
- They are generally located **above subduction zones** and are **frequently found in expansive areas that are still active volcanically**, like the **Ring of Fire**, which encircles a huge portion of the Pacific Ocean.
- At their peak, have a **small crater**. The crater may be **filled with water or ice**, or it may contain a volcanic dome during a period of relative inactivity.
- They are usually about half-half lava and pyroclastic material, and the layering of these products gives them their other common name, composite volcanoes.
- These volcanoes are **more viscous lavas** allow gas pressures to build up to high levels.

Why in News?

- According to a recent study published in the Journal of Climate. The **Hunga Tonga volcanic eruption** in January 2022 has had a substantial **impact on worldwide weather patterns**.

Advanced Prediction Tool for El Niño and La Niña



About ENSO (El Niño-Southern Oscillation):

- The El Niño-Southern Oscillation (ENSO) is a climate phenomenon characterized by periodic variations in sea surface temperatures and atmospheric conditions in the central and eastern tropical Pacific Ocean.
- ENSO includes three phases: El Niño, La Niña, and Neutral.

About Bayesian Convolutional Neural Network (BCNN):

- It uses AI (Artificial Intelligence), deep learning, and ML (Machine Learning) to forecast ENSO phases. Recent findings predicted La Niña conditions with 70-90% probability from July to September, extending until February 2025.



- BCNN integrates AI with dynamic modeling, offering enhanced accuracy and extended lead time compared to statistical and dynamic models. It overcomes challenges like limited historical oceanic data by integrating CMIP data from phases 5 and 6 (1850-2014), enhancing training datasets and climate modeling capabilities.

Indian National Centre for Ocean Information Services (INCOIS):

- 1999:** Established under the Ministry of Earth Sciences.
- INCOIS provides essential ocean information and advisory services through continuous observations, alongside 24/7 coastal monitoring and warnings for natural hazards.

Why in News?

- INCOIS has launched a new tool, the Bayesian Convolutional Neural Network (BCNN), to predict El Niño and La Niña which are the parts of **ENSO (El Niño-Southern Oscillation)** phenomenon.

Snow Persistence in the Hindu Kush Himalayan (HKH)

About Snow Persistence:

- The term “snow persistence” describes **how long snow remains on the ground**.
- Snow persistence is crucial for water resources, climate studies, and various ecological and human activities, with the Hindu Kush Himalaya (HKH) region’s snowmelt contributing 23% of annual runoff to major river basins.

About Hindu Kush Himalaya:

- The **Hindu Kush Himalaya mountain range** spans **eight countries** and stretches **3,500km across Asia**.
 - Afghanistan, Bangladesh, Bhutan, China, India, Nepal, Myanmar, and Pakistan.
 - These mountains are also called the ‘**water towers of Asia**’



Why in News?

- Recently, International Centre for Integrated Mountain Development (ICIMOD) reported record low snow persistence in the Ganga basin (lowest in 22 years), with similar declines in the Brahmaputra and Indus basins.



Cold Lava

About Cold Lava:

- It occurs when rain combines with ash, stones, and other volcanic elements.
- As it moves below, it gathers more silt and debris.
- Rain can wash cold lava down the slopes of a volcano during an eruption, carrying it far away.
- Cold lava moves quickly, giving residents little time to relocate, and poses a major risk to life and property due to its high density and abrasive nature.

Why in News?

- Recently, rivers of cold lava flowed from Mt. Kanlaon Natural Park on Negros Island, Philippines, after an explosive eruption.

Environment Conservation

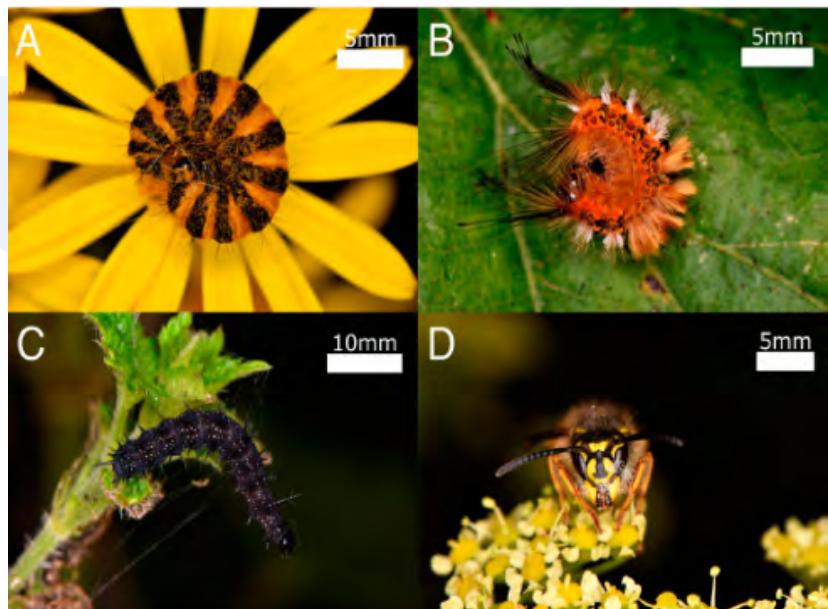
Caterpillars May Sense Threats Using Electric Fields

About Caterpillars:

- They are **tiny insects** that are **voracious feeders** which make them the most common pests for plants.
- Most caterpillars have **cylindrical bodies** consisting of multiple segments.

Recent findings/Why in News?

- Four species of caterpillars: **cinnabar moth, scarce vapourer moth, European peacock butterfly, and common wasp**, can detect their predators by sensing the static electricity they emit.



Monsoon Croaks' Project

About Monsoon Croaks Project:

- This is a **four-month project encouraging public participation in documenting frogs' presence** in various habitats using the **iNaturalist app**.
- The information gathered will be added to the **Global Biodiversity Information Facility (GBIF)**, supporting research on **climate change, habitat conservation, and biodiversity awareness**.

About Global Biodiversity Information Facility (GBIF):

- **2001:** Established through **Memorandum of Understanding** between **Participating governments**.
- It is an **international network** and data infrastructure funded by the world's governments and aimed at providing anyone, anywhere, open access to data about all types of life on Earth.



- It is an observer of the **Cooperation and Partnerships (CSP)**.
- **GBIF** contributes directly to **Aichi Biodiversity Targets**.

Why in News:

- **Monsoon Croaks Bioblitz 2024** is a citizen science initiative of the **Kerala Forest Research Institute** that aims to catalog the **species of frogs** found in Kerala during the monsoon.

Eco-Sensitive Areas

About Eco-Sensitive Areas (ESA):

- These are regions recognized for their **ecological importance** and **vulnerability**, requiring special protection measures.
- **Aim:** To **safeguard fragile ecosystems, wildlife habitats, and natural resources** from **human activities** and development pressures.
- ESAs are identified based on **scientific criteria**, including **biodiversity richness, presence of endangered species**, and susceptibility to human impacts.
- ESAs are notified by the **Ministry of Environment, Forest and Climate Change (MoEFCC) under the Environment Protection Act of 1986**.
- Lands falling within **10 km of the boundaries of national parks and sanctuaries** should be notified as **eco-fragile zones** under **section 3(v) of the Environment (Protection) Act, 1986**.

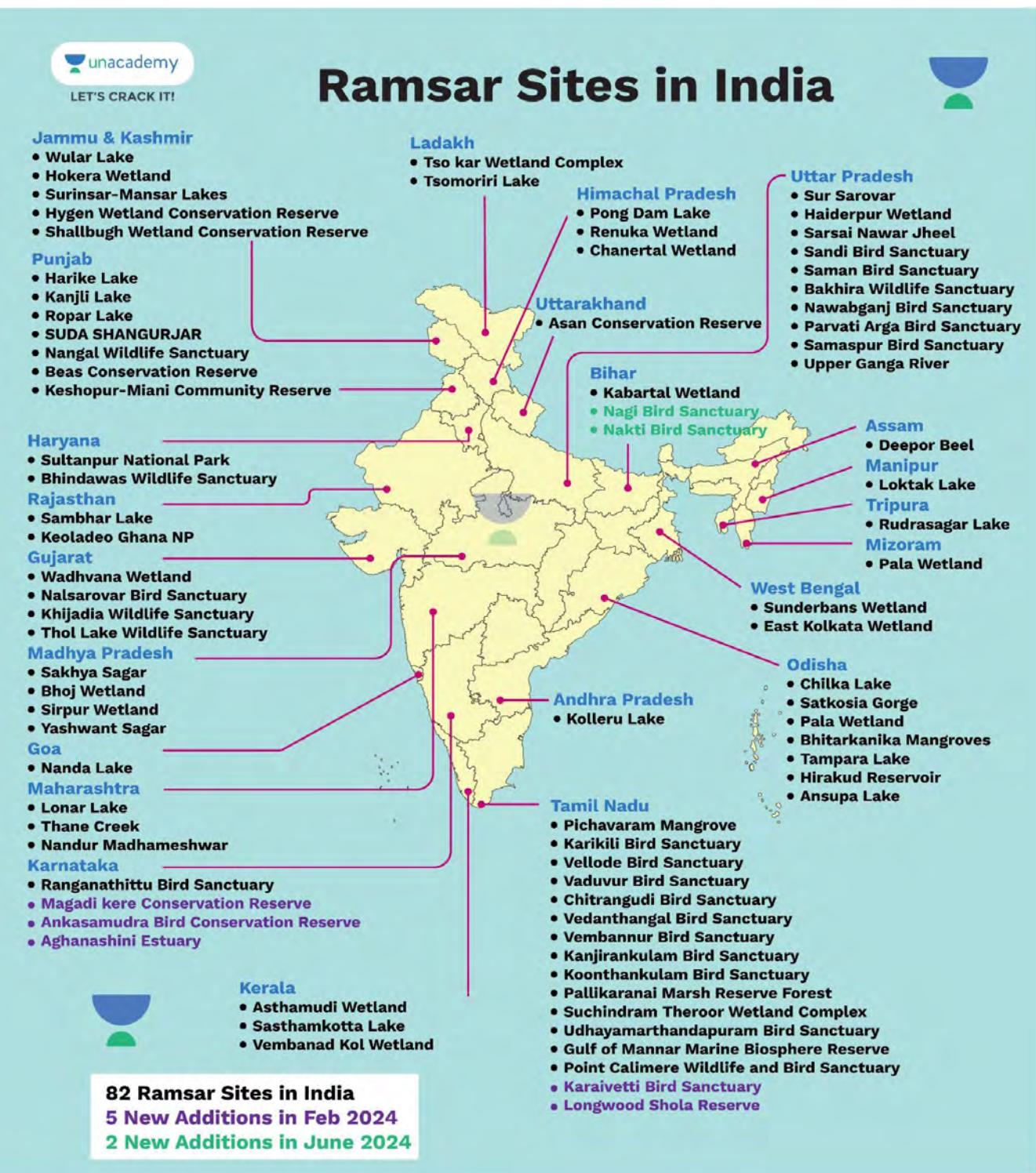
Activity around ESAs:

- **Prohibited Activities:** Include commercial mining, sawmills, noise-producing businesses, air, water, and soil pollution, large hydropower projects, and commercial wood use.
- **Permitted Activities:** Include ongoing agricultural or horticultural practices, rainwater harvesting, organic farming, use of renewable energy sources, and adoption of green technology.

Why in News?

- Karnataka, Maharashtra, and Goa seek reductions in Eco-Sensitive Areas (ESAs) to ease development operations.

Two New Additions in Ramsar Sites in India



Why in News?

- Recently, India added two new Ramsar sites, the Nagi and Nakti bird sanctuaries in Bihar, taking the tally of wetlands of international importance to 82.



Climate Change

Why Does India Need to Build Disaster Resilience in its Critical Infrastructure?

About Critical Infrastructure:

- Refers to assets, systems, and networks, whether physical or virtual, that are essential for the functioning of a society and economy.
- Key Sectors:** Energy, Water, Transportation, Information Technology, Healthcare, Financial Services, Food and Agriculture, Government Facilities, Emergency Services and Defense Industrial Base.

Reasons for India to Build Disaster Resilience in Critical Infrastructure:

- Surge in Demand, Vulnerable Systems** like Power, telecommunications, transportation, health etc., **Service Breakdown, Economic Losses** like over **Rs 1.5 lakh crore spent between 2018-2023 on disaster aftermath.**, and **Significant Long-Term Costs**.

About Coalition for Disaster Resilient Infrastructure (CDRI):

- 2019:** International partnership initiative launched by the Indian Prime Minister of India at the UN Climate Action Summit.
- Aim:** To bring together countries, organizations, and stakeholders committed to enhancing the resilience of infrastructure against natural disasters and climate change impacts.

Why in News?

- The CDRI recently carried out a study which highlighted the need to protect critical infrastructures from disasters and natural calamities.

Water Crisis in Maharashtra

The Recent Drought in Marathwada:

- Marathwada received less than 75% of its average rainfall last year.
- Many wells and reservoirs in the Beed and Dharashiv districts are dry.

About Rain Shadow Region:

- The region situated on the **leeward side of the mountain** is known as the **rain-shadow area**. Where receives significantly **less rainfall as compared to regions on the windward side** of the Western Ghats.
- The western side gets **heavy rainfall (2,000-4,000 mm)**, while **Marathwada** receives **only 600-800 mm**, causing frequent droughts and water scarcity.



Why in News?

- The Marathwada region of Maharashtra, which is in the **rain shadow of the Western Ghats**, is experiencing an extreme water crisis.



Pollution

Hybrid engines: ‘A Powerful Way’ to cut emissions, transition to full electrification

About Hybrid Engine:

- Combines two or more distinct types of power sources to propel the vehicle.
- Typically, it combines an internal combustion engine (ICE) with one or more electric motors.

Types of Hybrid Engines:

- **Mild Hybrid (MHEV):** Uses a small electric motor to assist the internal combustion engine, enhancing efficiency and performance.
- **Full Hybrid (HEV):** Can run on the internal combustion engine, electric motor, or a combination of both.
- **Plug-in Hybrid (PHEV):** Similar to a full hybrid but with a larger battery that can be recharged by plugging into an external power source.
- **Series Hybrid:** Internal combustion engine generates electricity to power the electric motor, which drives the wheels.
- **Parallel Hybrid:** Both the internal combustion engine and the electric motor can independently power the vehicle’s wheels.

Why in News?

- India’s leading car producers argued that strong hybrid engine vehicles offer a very powerful way to curb oil imports and reduce carbon emissions.

The “Painting with Light” air pollution Project

Project and Approach

- The “**Air of the Anthropocene**” program involves taking pictures to initiate conversations on air pollution.
- The research results were released in the journal **Nature Communications Earth & Environment**.
- The research showed the worldwide scope of air pollution problems by covering cities in **Ethiopia, India, and the United Kingdom**.

Studies in India

- Two Indian playgrounds were used for the photos: one in the city of **Delhi** and another in the rural area of **Palampur**.
- In comparison to **Delhi**, the **PM2.5** levels in **Palampur** were at least **12.5 times lower**.

About PM2.5 and its Effects on Health

- **Size and Composition:** PM2.5 particles are **tiny**, with a diameter smaller than **2.5 micrometers**, making them small enough to be inhaled deeply into the lungs.
- They are composed of a **mixture of solid particles** and **liquid droplets** suspended in the **air**, including **dust, pollen, soot, smoke**, and **various chemicals**.
- **PM2.5** has an adverse effect on **physical health**, contributing to illnesses like **cancer, heart disease, and stroke**.



- **Sources:** Originate from both **Natural** (wildfires, volcanic eruptions, and dust storms) and **Man Made** (vehicle emissions, industrial processes, construction activities, burning of fossil fuels) sources.

Why in News?

Researchers and artists have collaborated for a project called “Air of the Anthropocene” project, which uses inexpensive sensors and digital light painting to illustrate air pollution in India.

Arsenic in groundwater

About Arsenic:

- Occurs **naturally in the earth's crust** and can **enter water supplies**.
- Arsenic occurs in both **organic** and **inorganic** form.
 - **Organic arsenic compounds:** Those found in **seafood**, are **less harmful to health**.
 - **Inorganic arsenic compounds:** Those found in **water**, are **highly toxic**.
- Toxic in various forms, exposure can lead to **health issues** like **cancer**, **skin lesions**, and **cardiovascular diseases**.
- Commonly found in **groundwater**, especially in areas with favourable geological characteristics for its release.
- Remediation methods include **filtration**, **chemical treatment**, and **biological processes**.

Sources of Arsenic

Natural Sources: Sedimentation and redox conditions influence its release into groundwater.

Human Activities: Mining, industrial activities, and arsenic-containing insecticides, herbicides, rodenticides or pesticides can also locally contaminate groundwater.

The Novel three-step process of IISc to remediate groundwater contamination:



Why in News?

- Recently, Researchers at the **Indian Institute of Science (IISc)** have developed a patent-pending **three-step process to remediate groundwater contaminated** with heavy metals like **arsenic**.



Ozone-Depleting Substances (ODS)

About ODS:

- These are chemicals that lead to the depletion of the stratospheric ozone layer, which protects Earth by absorbing most of the sun's harmful ultraviolet radiation.
- Examples:** chlorofluorocarbons (CFCs), halons, carbon tetrachloride, and methyl chloroform, used in refrigerators, air conditioners, fire extinguishers, and aerosols.

International Convention	
Montreal Protocol (1987)	<ul style="list-style-type: none"> Aims to protect the ozone layer by phasing out ODS, including CFCs, with a global ban since 2010. Led to the phase-out of almost 99% of ozone-depleting substances.
Kigali Amendment (2016)	<ul style="list-style-type: none"> Targets a global phase-down of HFCs, substitutes for harmful ODS like HCFCs and CFCs. Aims to avoid emissions of over 70 billion tonnes of CO₂ equivalent by 2050.

Why in News?

- Research signals a major milestone in cutting harmful gases that deplete ozone and worsen global warming with significant reduction in atmospheric levels of harmful ODS hydrochlorofluorocarbons (HCFCs).

Flora and Fauna

Eucalyptus Planting in Kerala

About Eucalyptus Trees:

- An invasive plant.** These trees are **tall, evergreen trees endemic to southeastern Australia, Tasmania.**
- Commonly known as **southern blue gum or blue gum.**
- These species of flowering plant in the family **Myrtaceae.**
- Eucalyptus trees are also known for their **ability to absorb groundwater**, which can **influence local hydrology.**
- They are commonly known as **eucalyptus or “gum trees”.**
- Eucalyptus oil is extracted from the leaves and used for medicinal, antiseptic, and industrial purposes.
- They are highly adapted to fire, with many species regenerating quickly after wildfires.
- Eucalyptus trees can release chemicals from their leaves and roots that inhibit the growth of other plants around them, a phenomenon known as **allelopathy.**





Why in News?

- Recently, the Kerala government issued an order allowing the Kerala Forest Development Corporation (KFDC) to plant **eucalyptus trees**.

Assam Gibbon



About Hoolock Gibbon:

- Hoolock Gibbon is the only ape found in India.
- Gibbons, the **smallest and fastest** of all apes, live in **tropical** and **subtropical forests**.
- Native to **eastern Bangladesh, Northeast India, Myanmar** and **Southwest China**.
- They are primarily **arboreal**, which means they **live in trees**.
- It is categorized into:

Western Hoolock Gibbon	Eastern Hoolock Gibbon
<ul style="list-style-type: none"> Found in all the states of the north-east, restricted between the south of the Brahmaputra River and east of the Dibang river. Outside India, it is found in eastern Bangladesh and north-west Myanmar. 	Found in Arunachal Pradesh and Assam in India and in Southern China and northeast Myanmar outside India.
IUCN Status: Endangered	IUCN Status: Vulnerable

- In **India**, both species are listed on **Schedule I of the Indian (Wildlife) Protection Act 1972**.

Why in News?

- Recently, the **Northeast Frontier Railway (NFR)** has allocated funds to **construct canopy bridges for India's only ape** to move across a railway track bifurcating its prime habitat in eastern Assam.



Largest Leopard Safari in BBP



About Leopard Safari in Bannerghatta Biological Park (BBP)

- Bannerghatta Biological Park (BBP) was separated from Bannerghatta National Park (BNP) in 2004, which was designated a national park in 1974.
- BBP is home to free-ranging leopards (*Panthera Pardus*).
- It covers the valley of the Champakadhamma hills located at Karnataka

Leopard

- Belongs to the *Panthera* genus, known for its ability to adapt and its secretive nature.
- IUCN Status: **Vulnerable**

Why in News?

- South India's first and India's largest leopard safari was inaugurated recently at the Bannerghatta Biological Park (BBP) in Karnataka.

Mainland Serow



About Mainland Serow:

- **Scientific Name:** *Capricornis sumatraensis* thar
- **Habitat:** Himalayas, China, Southeast Asia, Bhutan (**Phisboo Wildlife Sanctuary & Royal Manas National Park**)
- **Behaviour:** Lives alone or in small groups.
- **IUCN Status:** Vulnerable



Why in News?

- A Mainland Serow was spotted for the first time near human habitation at the lowest elevation in Assam's Raimona National Park, outside of Bhutan.

Disaster Management

Fire Safety Regulations in India

Fire Safety Norms in India:

- Model Building Bye Laws 2016:** It issued by the **Ministry of Housing and Urban Affairs**, offers guidance to **states** and **Union Territories (UTs)** in formulating building bylaws to **address fire protection and safety requirements**.
- National Building Code (NBC):** It was published by the **Bureau of Indian Standards (BIS) in 1970** and updated in 2016, providing comprehensive **guidelines for construction, maintenance, and fire safety protocols in buildings**.
- Responsibility of State:** Fire Service is a **State subject** and has been included as a **Municipal function in the XII Schedule** of the Constitution of India under **Article 243 (W)**.
- The Central Government **does not maintain** any data related to fire accidents/incidents in States centrally.
- National Disaster Management Authority (NDMA):** It **requires public buildings, such as hospitals, to meet certain fire safety standards**. These include having open safety areas, evacuation protocols, designated stairways, and evacuation drills.

Why in News?

- The recent tragic fire accidents that occurred in Vivek Vihar, Delhi, and Rajkot, Gujarat, raised serious worries about the safety of public buildings and the implementation of regulations.

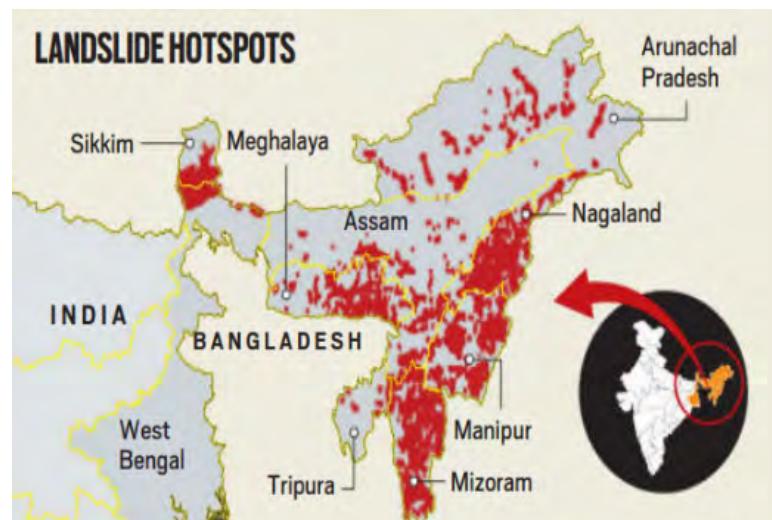
Danger from Landslides

About Landslide:

It is the movement of rock, earth, or debris down a slope due to gravity. It can be triggered by natural causes or human activities.

Types of Landslides:

- Falls:** Sudden drop of rock or debris from a steep slope.
- Slides:** Movement of material along a defined surface, including rotational slides (slumps) and translational slides.
- Flows:** Movement of material in a fluid-like manner, such as mudflows and debris flows.
- Topples:** Forward rotation of rock or debris out of a slope.





Areas Prone to Landslides:

- **Mountainous Regions:** Steep slopes and heavy rainfall make areas like the Himalayas and Western Ghats prone to landslides.
- **Coastal Areas:** Cyclone-prone coastal regions with hilly terrains, such as parts of the Eastern Ghats, are vulnerable.
- **Deforested and Developed Slopes:** Areas where vegetation cover has been removed or where construction activities are ongoing.
- **Mitigation and Management:** Land Use Planning, Early Warning Systems, Bioengineering methods, Community Awareness, Disaster Response etc.

Why in News?

- **Cyclone** Remal triggered landslides in the North-East spotlights the need for building resilience to multi-hazard disasters.

Limitations of Disaster Database

About Missing Data and Limitations of Disaster Database:

- **Missing Insured Losses and Economic Damage:**
 - Between 1990 and 2020, more than 40% of disasters lacked estimates of monetary damages.
 - In 88% of disaster reports, insured damages were absent, and 96% required documentation of reconstruction expenses.
- **Past Records' Biases and Gaps:**
 - The majority of major disasters were recorded in earlier records, whereas smaller incidents were sometimes left out.
 - In low-income regions like Sub-**Saharan Africa and South Asia**, where economic losses from disasters are often **underreported**, data coverage is especially inadequate.
- **Heat Events and Their Health Effects Are Not Covered:**
 - Relatively few nations register heat-related incidents, which could mean that other regions are not being adequately reported.
 - Extreme temperature-related indirect health impacts, like a higher risk of cardiovascular disease, are difficult to measure and frequently go unrecognized.

Why in News?

- **The Food and Agricultural Organization (FAO) of the United Nations** reported that the number of **worldwide disasters increased from approximately 100 per year in the 1970s to approximately 400 in recent years.**

Heat Action Plan

About Heat Action Plans (HAP):

- It is a detailed strategy developed by governments or organizations to reduce health risks during extreme heat events by protecting vulnerable groups, providing resources, and coordinating responses during heatwaves.
- Odisha initiated its HAP in 1999 after over 2,000 heatwave deaths in 1998. Ahmedabad developed the first city-level plan in 2013 after a severe heatwave in 2010.



- Currently, 23 states, with support from the NDMA (national Disaster Management Authority) and IMD (Indian Meteorological Department), are developing HAPs, though there is no centralized database.

Why in News?

- Various non-profit organizations have expressed concerns regarding heat action plans (HAP) for nine cities and five districts, noting a lack of clear assessment regarding the impact of heat on the local population.

Probable MCQs

1. Which of the following statements about Eucalyptus trees are correct?

1. These are deciduous trees native to South America.
2. These trees are known for their significant water uptake which can substantially alter local hydrological patterns.
3. They exhibit remarkable skill of fire adaptation and rapid regeneration after fire.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3 only

Ans: (b)

2. Consider the following statements about Urban Heat Islands:

1. Urban heat islands result from complex interactions between built environments and natural factors.
2. Heat Action Plans are strategies developed by urban local bodies to prepare for and mitigate the effects of heatwaves.

Which of the above statements is/are correct?

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

Ans: (c)

3. Consider the following statements about Eco-Sensitive Areas (ESAs) and Eco-Sensitive Zones (ESZ):

1. Both ESAs & ESZ are notified by the Ministry of Environment, Forest and Climate Change.
2. ESAs are regions notified under the Wildlife Protection Act, with the aim of protecting and conserving ecologically fragile ecosystems.

Which of the above statements is/are correct?

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

Ans: (c)



4. Consider the following statements regarding the Indian National Centre for Ocean Information Services (INCOIS) launched Bayesian Convolutional Neural Network (BCNN):

1. INCOIS utilizes the Bayesian Convolutional Neural Network tool to enhance its oceanographic data analysis and forecasting capabilities.
2. BCNN tool is primarily used by INCOIS to monitor air quality and provide meteorological forecasts.

Which of the statements given above is/are correct?

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

Ans: (a)

5. Consider the following statements about the Coalition for Disaster Resilient Infrastructure (CDRI):

1. It was launched by India at the UN Climate Action Summit in 2015.
2. The primary focus areas of CDRI include both greenfield and brownfield infrastructure projects, with an emphasis on developing countries.

Which of the above statements is/are correct?

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

Ans: (b)

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Space Technology

China's Chang'e-6 Landing on Moon's Far Side

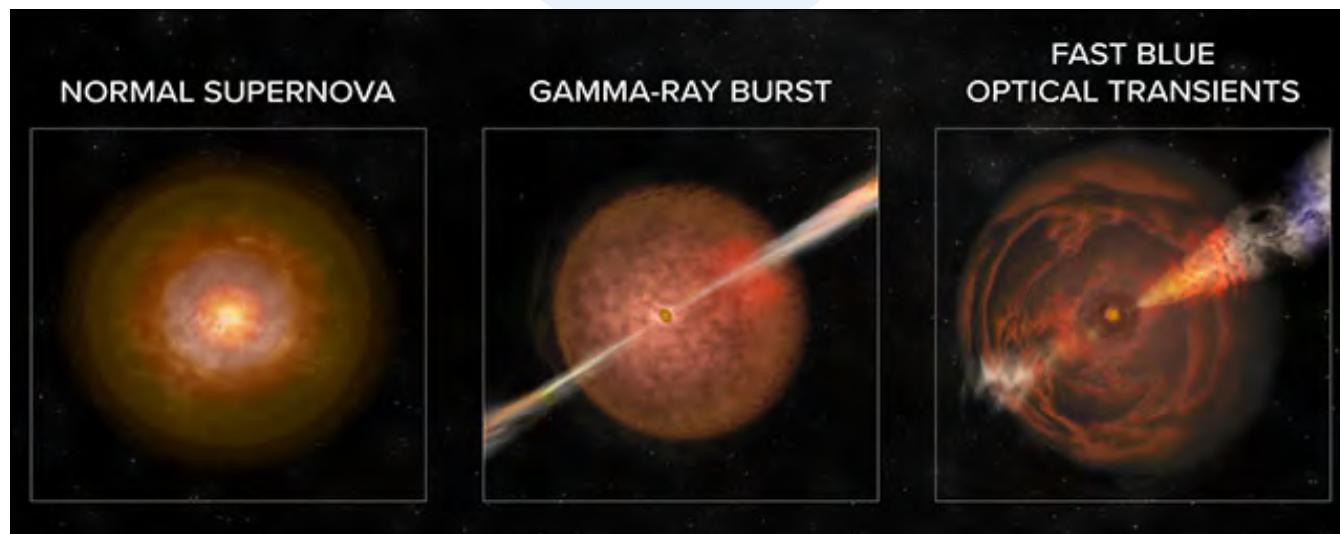
About Chang'e-6:

- It was launched by a **Chinese Long March-5 rocket** from **Wenchang Space Launch Center** on the southern island of Hainan before 53 days.
- Chang'e-6** consists of **an orbiter**, a **returner**, a **lander and an ascender**.
- It has made significant progress toward realizing critical technologies for intelligent and quick sampling and has made strides in the **design and control of the lunar retrograde orbit**.
- It is the **second mission** to successfully land on the moon's far side. **2019 saw China achieved** that remarkable feat for the **first time with its Chang'e-4 probe**.
- The mission aims to **collect precious rock and soil from** this region for the **first time in history**.

Why in News?

- Recently, the Chang'e-6, an uncrewed spacecraft, successfully landed in the South Pole-Aitken Basin on the back of the moon.

Astronomical Transients



About Transients:

- A transient in astronomy is any **celestial object whose brightness varies quickly**.
- Transients include phenomena like **supernovae**, **active galactic nuclei**, and **mysterious fast radio bursts**, shedding light on violent cosmic events.
 - Supernovae** occur when large stars explode, and emitting intense light.
 - Active galactic nuclei (AGN)** are **another type of supermassive black holes** located at the centers of galaxies that radiate light from their active consumption of matter.
 - Fast radio bursts (FRBs)**, discovered in 2007, are mysterious transients emitting huge energy in milliseconds.



Why in News?

- Recently, **Astronomer Shrinivas Kulkarni**, who is **Indian-American**, won the 2024 Shaw Prize for Astronomy in recognition of his **studies on celestial transients**—objects whose **brightness varies quickly**.

MOND Theory: Alternative Theory to Explain Spinning Galaxy

Background:

- In astrophysics, scientists are puzzled by how galaxies move. They spin much faster than expected based on traditional physics, suggesting there's invisible mass.
- To explain this, scientists proposed "dark matter," invisible material.
- An alternative concept is known as MOND theory, which modifies the laws of gravity.

Dark Matter Theory: It states that dark matter, an **invisible substance**, is what **keeps galaxies together**. Despite its success, dark matter has not yet been directly observed.

About MOND Theory:

- A different theory to describe behaviour of galaxies is called **Modified Newtonian Dynamics (MOND), which was proposed by Mordehai Milgrom in 1982**.
- It implies that the **behavior of gravity is altered at low accelerations, especially in areas within galaxy boundaries**.
 - It implies that in weak locations, such as galaxy margins, gravity functions differently.

Why in News?

- With several space missions exploring far corners of the universe and aiming to explain the behaviour of galaxies, the MOND Theory is being talked about.

New Findings may Improve the Ability to Forecast Solar Storms

About Solar storms:

- The Sun's outer 30% consists of an "ocean" of churning gases plunging more than 210,000 km below the solar surface.

New findings:

- Sun's magnetic field is generated near the top of this ocean – less than 5% inward, or about 32,000 km, rather than near the bottom, as long hypothesised.
- improved ability to forecast solar storms & guard against potential damage to electricity grids, radio communications and orbiting satellites.

Why in News?

- Recent studies have highlighted where solar storms originate from.

Starship Project

About Starship Project:

- It is a completely **reusable** mode of transportation intended to **transport crew and cargo to**



Mars, the Moon, and Earth orbit.

- Up to 250 metric tonnes of reusable cargo and 150 metric tonnes of totally reusable cargo can be transported by Starship.
- Liquid oxygen (LOX) and liquid methane (CH₄)** power the Raptor engines that powered the Starship Super Heavy.
- The first stage booster is powered by 33 Raptor engines in total.

Why in News?

- Recently, **SpaceX's Starship rocket** achieved a significant first by successfully completing a hypersonic return from orbit, with a smooth landing in the Indian Ocean.

ISRO Reusable Launch Vehicle Pushpak aces Final Landing Test

About Reusable Launch Vehicle (RLV):

- Spacecraft are designed to be launched, recovered, and reused multiple times.
- Key Features**
 - Reusability:** The core feature is the ability to recover and refurbish the vehicle for multiple launches.
 - Cost-Effectiveness:** Reduces the per-launch cost by spreading the expense of the vehicle over many missions.
 - Sustainability:** Minimizes space debris and environmental impact compared to single-use rockets.



Historical Context:

- Space Shuttle Program (1981-2011):** NASA's Space Shuttle was the first partially reusable launch vehicle, with a reusable orbiter and solid rocket boosters.
- Notable Examples:** SpaceX Falcon 9, Blue Origin New Shepard, NASA's Space Shuttle, ISRO's RLV named Pushpak.

Why in News?

- ISRO successfully demonstrated the landing capability of the Reusable Launch Vehicle (RLV), named Pushpak, for the third time, bringing it one step closer to using the vehicle for an orbital mission.

Zero Debris Charter

About Zero Debris Charter:

- 2023: launched** in Seville meeting, as an **initiative of the European Space Agency (ESA)**.
- Recently, **Austria, Belgium, Cyprus, Estonia, Germany, Lithuania, Poland, Portugal, Romania, Slovakia, Sweden, the United Kingdom, and the European Space Agency** pledged to adhere to the **Zero Debris Charter**.
- The Zero Debris Charter is a **non-legally binding agreement** aimed at achieving debris-neutral space activities by 2030.



About European Space Agency (ESA):

- intergovernmental organization dedicated to the exploration of space.
- **1975:** Established by 22 member states of the European Union.

Key Programs and Achievements

- **Ariane Program:** ESA's flagship program for developing and launching rockets. The Ariane family of launch vehicles has been critical in placing satellites into orbit.
- **Galileo:** Europe's own global navigation satellite system, providing highly accurate global positioning services.
- **Copernicus:** An Earth observation program aimed at monitoring the environment and climate change.
- **Rosetta Mission:** The historic mission that successfully landed the Philae probe on a comet in 2014.
- **International Space Station (ISS):** ESA contributes to the ISS, providing modules, technology, and astronauts.

Why in News?

- Recently, **twelve nations** signed the **Zero Debris Charter** at the **European Space Agency (ESA)/ EU Space Council** to achieve **debris-neutral space activities by 2030**.

Information Technology and Artificial Intelligence

IT/ITeS policy revamp to push sector's GDP share, exports

About proposed National Information Technology Policy, 2024:

- **Goals and Targets:**
 - **Exports Growth:** Aim to expand software exports from \$200 billion to \$400 billion by 2030.
 - **Revenue Growth:** Increase total software industry revenues from \$254 billion to \$500 billion by 2030.
 - **Employment Generation:** Create direct and indirect employment opportunities for 10 million people.
- **Global Capability Centres (GCCs):** Plan to double the number of GCCs in India from 1,600 to 3,200 by 2030.
- **Collaborative Effort: IT Ministry and Industry Bodies & Private Sector.**
- **Current IT Sector Statistics:**
 - **Employment:** The IT sector employs 5.43 million professionals, including a 36% share of women employees.
 - **Revenue Estimates for FY24:** Projected to reach \$254 billion, with \$200 billion from exports and \$54 billion from the domestic tech sector.

Why in News?

- The Centre has initiated discussions with the private sector to revamp its decade-old national information technology policy with the aim of boosting the IT sector's contribution to India's GDP.

World's first 3D-Printed Rocket Agnibaan SOrTeD Engine

About Agnibaan Sub Orbital Technology Demonstrator (SOrTeD):

- It is a **single-stage launch vehicle** powered by **AgniKul's** patented **Agnilet engine**.
- It is India's first **semi-cryogenic engine**, developed **indigenously**.
- The rocket engine will burn **kerosene-liquid oxygen** and can be directly used in the rocket, making it highly efficient.
- It can carry a **100-kg payload** up to a **height of 700 km**.
- To ensure its compatibility with multiple launch ports, **Agnikul has designed a launch pedestal called 'Dhanush'**.

Why in News?

- Recently, the Agnikul Cosmos Pvt. Ltd. Launched the **world's first rocket - Agnibaan Sub Orbital Technology Demonstrator (SOrTeD)** — with a **single-piece 3D-printed engine** from Sriharikota.



Magnetic Resonance Imaging (MRI)

About Magnetic Resonance Imaging (MRI):

- MRI is a **non-invasive** diagnostic procedure used to obtain images of **soft tissues within the body**.
- It is particularly beneficial for imaging complex structures like the **brain, heart, spinal cord, muscles, joints, liver, and arteries**.
- **Application of MRI:**
 - MRI is used in medical applications. MRI is a reliable method of identifying diseases and health issues in the human body.
 - MRI is utilized for treating brain tumors, heart attacks, strokes, head or neck injuries, brain and spinal cord defects, joint and bone issues, liver and stomach problems, and women's uterine irregularities, among others.
- **Advantages:**
 - Provides high-resolution images without radiation exposure.
 - Offers excellent contrast resolution for distinguishing between different types of tissues.
- **Disadvantages:**
 - **Expensive equipment** and maintenance costs.
 - Some patients may experience **claustrophobia during the procedure**.
 - Requires patients to remain still for extended periods.

Why in News?

- Recently, scientists have designed a **magnetic resonance imaging (MRI)** scanner that costs a fraction of existing machines, setting the stage for improving access to this widely used diagnostic tool.



AI strategy, called “Apple Intelligence”

About Apple Intelligence:

- Apple Intelligence uses generative AI and personal context to provide personalized, context-aware responses.
- **Features:**
 - **Personalized Experience:** Uses generative AI to modify responses based on user context.
- **Applications:** Core ML, Siri, Health Monitoring, Email Management, Writing Tools

Why in News?

- Apple introduced **“Apple Intelligence,”** a generative AI system that is incorporated into iOS 18, iPadOS 18, and macOS Sequoia into iPhones, iPads, and Macs.

Claude 3.5 Sonnet

About Claude 3.5 Sonnet:

- It is Anthropic’s advanced AI language model, part of the Claude 3 family including Haiku, Opus, and Sonnet versions, operates twice as fast as Claude 3 Opus.

Chat GPT-4o ‘omni’:

- It is OpenAI’s advanced AI model, known for its superior language understanding and generation capabilities.

Why in News?

- Anthropic launched Claude 3.5 Sonnet, which the AI startup says outperforms its previous AI models and OpenAI’s recently launched GPT-4o.

Tera Operations per Second (TOPS)

About Tera Operations per Second (TOPS)

- TOPS (Tera Operations per Second) measures computational performance, crucial in AI and machine learning.
- It quantifies a processor’s ability to perform one trillion operations per second, commonly used to evaluate AI accelerators, GPUs, and specialized processors.

NPU (Neural Processing Unit):

- It accelerates AI and machine learning tasks by optimizing neural network computations, fundamental to various AI algorithms.

Why in News?

- Microsoft has upgraded its new AI Chatbot Copilot+ PCs with various Artificial Intelligence features which require up to 40 TOPs (Tera Operations per Second) for NPU (Neural Processing Unit).

AI anchors named AI Krish and AI Bhoomi

About AI Krish and AI Bhoomi:

- These AI anchors will serve as **information hubs for farmers**, delivering updates on topics like:



Price fluctuations and trends, weather forecasts, and details of government schemes.

- They read the news **365 days** a year and **speak 50 different languages**.

Doordarshan Kisan:

It is an Indian **state-owned agriculture channel**, founded by the **Ministry of Information and Broadcasting**.

Why in News?

- Recently, **Doordarshan Kisan**, the nation's **first government TV network** introduced two **AI anchors**, named **AI Krish** and **AI Bhoomi**.

eSakshya App

About eSakshya App:

- Developed by: **National Informatics Centre (NIC), Ministry of Electronics & Information Technology**.
- The aim is to **help police record scenes of crime, search and seizure in a criminal case** and upload the file on the cloud-based platform.
- The police official will have to upload a selfie after the procedure is complete.
- **Features:**
 - Streamline the communication between law enforcement agencies.
 - It allows police to record audio-visual evidence at the crime scene (maximum of 4 minutes).
 - Multiple files can be uploaded for each First Information Report (FIR) to a cloud-based platform.

Why in News?

- The Union Ministry of Home Affairs is conducting trials of the **eSakshya mobile app** in preparation for the **implementation of three new criminal laws**.

Biotechnology

Microcephaly

About Microcephaly:

- It is a medical condition where a baby's head is significantly smaller than normal.
- Researchers believe the roots of the condition lie in the peak phase of brain development in the embryo.
- Microcephaly can be diagnosed before birth using foetal ultrasound and MRI.
- **Possible Causes:**
 - **Infections during pregnancy:** include toxoplasmosis (from a **parasite** in undercooked meat), **campylobacter pylori, rubella, herpes, syphilis, cytomegalovirus, HIV, and Zika virus**.
 - Exposure to toxic chemicals such as **arsenic and mercury**, along with alcohol, radiation, and smoking.
 - Severe malnutrition during fetal life.



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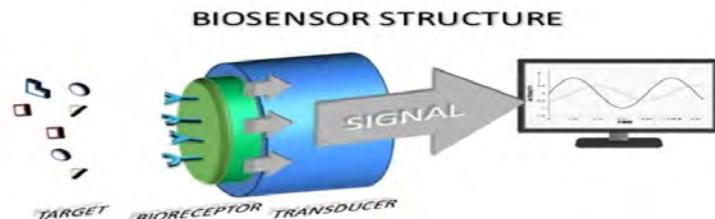
Why in News?

- A gene called **SASS6 (Spindle Assembly Abnormal Protein 6)** and its variants have been found to play a key role in a developmental process that causes “**Microcephaly**”.

New light-based Tool Detects Viral Infections

How does it work?

- A virus that infects a cell causes it to change in size, shape, and characteristics. The scientists introduced light-bearing pig testicular cells to **pseudorabies virus infection**, then observed the resulting chromatic aberrations.
- The instrument makes use of **diffraction patterns**, which are produced **when light waves refract** after going around small objects or through constricted spaces.



Significance

- The procedure costs roughly a tenth of the conventional method and can diagnose viral infections in about two hours. This lessens reliance on supply chains and chemical reagents and increases accessibility.
- As a result of bird flu outbreaks that killed over 131 million chickens in 2022 and 2023, prompt detection is key.
- The new technique can identify **viral infections generally**, enabling prompt preventive interventions, although **current approaches (PCR and antigen testing)** are specific to individual viruses.

Why in News?

- Recently, researchers have developed a new tool that **can detect viral infections** in cells using **only light and basic physics**.

‘Green-beard’ genes could explain how altruism arose in nature

About Green-beard genes:

- Green beard genes are a theoretical concept in evolutionary biology.
- Character and Action:** It proposes that a single gene causes both a visible trait (like a green beard) and behavioural trait (like altruistic behavior) who possess the same trait.

About Altruism:

- Altruism is a behavior where an individual acts to benefit another individual or group, without expecting any direct reward or benefit in return.

About Altruistic Amoebae:

- Dictyostelium discoideum** is a **free-living, fast-growing, unicellular amoeba**. In the wild, it feeds on bacteria that grow on decaying vegetation.
- When the bacteria run out, the amoebae stop multiplying and gather in the hundreds of



thousands to form **multicellular aggregates** visible to the naked eye.

- About **20% of the amoebae in an aggregate altruistically** sacrifice themselves to form the stalk. The **remaining 80% become the spores.**

Why in News?

- The **Green-beard genes** use to **produce altruism plus the corresponding ability to keep altruistic amoebae** from being exploited by greedy ones.

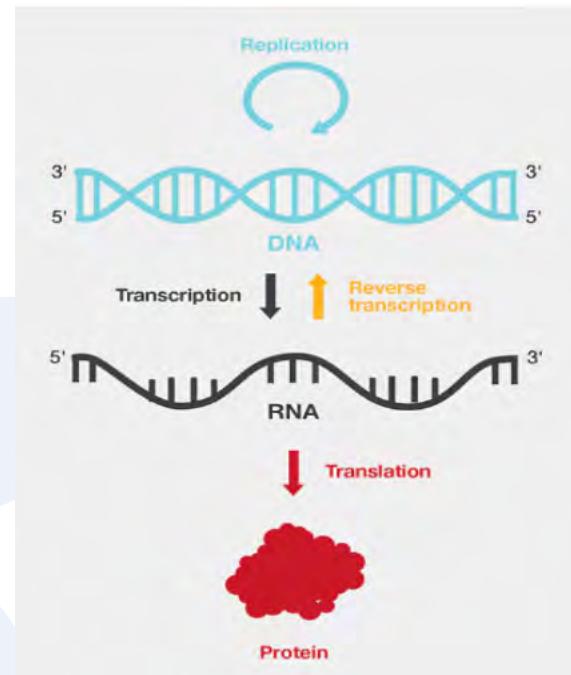
Bacteria that write new genes to cope with infections

About Reverse transcriptase (RT):

- A reverse transcriptase is an enzyme used to **convert RNA genome to DNA**, a process termed reverse transcription.
- RT also known as **RNA-dependent DNA polymerase**, is a DNA polymerase enzyme that **transcribes single-stranded RNA into DNA**.

About Rise of Reverse Transcriptase during the COVID-19:

- The COVID-19 pandemic revealed a previously unknown **enzyme called reverse transcriptase** and caused unprecedented challenges.
- This enzyme was utilized by labs all over the world to provide **accurate diagnostic tests for the SARS-2 virus.**



Identifying Reverse Transcriptase

- It is remarkable that the **reverse transcriptase** was found on its own by scientists in two distinct labs.
- **In 1970**, both groups reported their results in the magazine Nature.
- According to one of the researchers, the vesicular stomatitis virus **reverse-transcribes RNA to DNA through a protein called RNA polymerase.**
- **“Reverse transcriptase” was first used by the editor of Nature in an article about the noteworthy discovery.**

Defense of Bacteria using Reverse Transcriptase:

- According to research, non-coding RNA with certain sequences that bind to reverse transcriptase and produce DNA is used by bacteriophages to infect **Klebsiella pneumoniae**.
- This DNA copy contains several copies of a gene that codes for a particular protein.
- The protein, called **“Neo” for “never-ending open-reading frame,”** may stop an infection by preventing the bacterial cell and the bacteriophage from replicating.

Why in News?

- During the COVID-19 pandemic, **reverse transcriptase** became well-known for its function in molecular diagnostics, which **allowed for quick identification and tracking of the SARS-2 virus.**



Ethanol and Methanol Production

About Ethanol and Methanol Production:

Ethanol	Methanol
<p>Fermentation: Ethanol is commonly produced by fermenting sugars from agricultural crops (like corn, sugarcane) or cellulosic feedstocks (like wood or agricultural waste).</p>	<p>Gasification: Methanol is typically produced by gasifying carbon-based feedstocks such as natural gas, coal, or biomass.</p>
<p>Distillation: The fermented mixture undergoes distillation to separate ethanol from water and other components.</p>	<p>Catalytic Conversion: The gases produced through gasification undergo catalytic reactions to convert carbon monoxide and hydrogen into methanol.</p>
<p>Ethanol, also known as ethyl alcohol, is a clear, colorless liquid with a characteristic odor. It is highly flammable.</p>	<p>It is a colorless, volatile liquid with a mild odor, and is highly flammable.</p>

Why in News?

- Recently, more than 50 people died in the Kallakurichi illegal alcohol disaster, often caused by **Methanol consumption in India.**

Health

Mifepristone: Abortion Pill

About Mifepristone (also known as RU-486):

- It is used with misoprostol tablets to induce abortion up to 10 weeks into a pregnancy, and is only available through a certified doctor's prescription.
- Mifepristone blocks the hormone progesterone, and misoprostol induces uterine contractions, resulting in a process similar to miscarriage.
- In several countries, including India and Mexico, mifepristone can be purchased without a prescription.

Why in News?

- Recently the US Supreme Court has rejected a petition by anti-abortion groups seeking to undo the Food and Drug Administration's (FDA) approval of a commonly available abortion pill, called **mifepristone.**

Inflammatory Bowel Disease (IBD)

About Inflammatory bowel disease (IBD):

- IBD is a chronic condition where the **body's immune system** mistakenly attacks the **cells of the digestive tract**, causing **inflammation and ulcers.**
- Symptoms:** fever, stomach pain, diarrhea (sometimes bloody), and weight loss.
- Types:** There are **two main types of IBD:**
 - Ulcerative Colitis:** Affects only the large intestine (colon).



- **Crohn's Disease:** Can affect any part of the digestive tract, from the mouth to the anus.
- **Causes of IBD:**
 - Immune System Dysregulation, Genetics, Gut Microbiota, Environmental Factors.

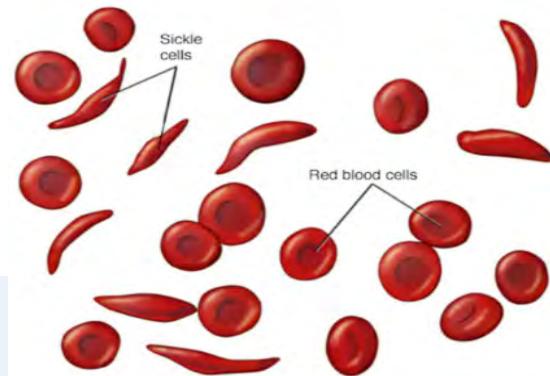
Why in News:

- The rising diagnosis and knowledge of **Inflammatory Bowel Disease (IBD)** in youngsters in India has brought attention to the illness.

Sickle Cell Disease (SCD)

About Sickle Cell Disease (SCD):

- **SCD** is a **genetically inherited** red blood cells (RBC) disorder, meaning it's **passed from parents to children through genes**.
- Because of the **abnormal hemoglobin**, red blood cells get **sickle-shaped, sticky, and rigid**.
- **Acute chest syndrome, stroke, discomfort**, and infections are among the consequences of this abnormality.
- SCD occurs in various forms, with **HbSS, HbSC**, and **HbS beta thalassemia** having variable degrees of severity.
- SCD is most common in people of **African, Hispanic, Mediterranean, and Middle Eastern descent**.



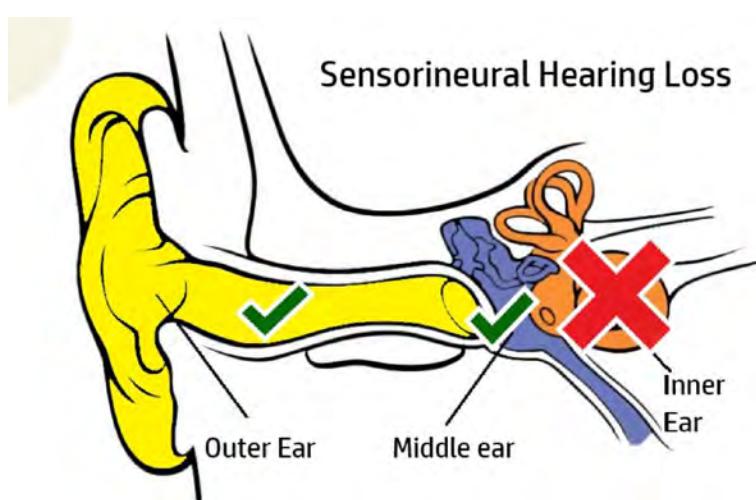
Why in News?

- The **Indian Council Medical Research (ICMR)** is working towards **pediatric oral formulation** to treat **sickle cell disease in India**.

Sensorineural deafness

Sensorineural Deafness

- A type of hearing loss due to damage to the inner ear or auditory nerve. It affects the cochlea, where sound waves are converted to electrical signals in the human ear.
- **How is it different from Common Deafness?**
 - Occurs in the inner ear, unlike external hearing loss (outer or middle ear).
 - May not be curable if not addressed promptly.





- **Causes:**
 - Viral infections, Meningitis, mumps, measles, Ear or head injury, Prolonged exposure to loud noises.

Why in News?

- Renowned Indian Singer Alka Yagnik has announced that she is suffering from a condition called sensorineural deafness.

Fatty Liver Disease

About Fatty Liver Disease (FLD):

- **It is a condition where fat get accumulated in liver cells.**
- **Alcoholic Fatty Liver Disease (AFLD):**
Excessive alcohol consumption.
- **Non-Alcoholic Fatty Liver Disease (NAFLD):**
Not alcohol-related; linked to obesity, insulin resistance, diabetes, and metabolic syndrome.
- **Symptoms:** Fatigue, abdominal discomfort, jaundice (yellowing of the skin and eyes).



Why in News?

- Recently, experts have highlighted the rising cases of non-alcoholic fatty liver disease in India.

H5N2 Bird flu

About H5N2 variant:

- It is a **highly pathogenic** type of **Avian Influenza A** virus that mostly affects **birds**.
- **H5N2** has been **first reported** in poultry in **Mexico**.
- The Influenza Based on the proteins on their surfaces, viruses are subtyped and categorized.
 - There are **11 distinct neuraminidase (N)** subtypes, **including H5N2**, and **18 distinct hemagglutinin (H)** subtypes.
- **H5N2 Transmission to Humans:**
 - While human infections with H5N2 are rare, the virus could mutate to spread more easily among people while remaining severe, which is a big health risk.
- **Impact on Health:**
 - May cause mild to severe upper respiratory tract infections and can be fatal.
 - Conjunctivitis, gastrointestinal symptoms, encephalitis and encephalopathy have also been reported.
- **Treatment:**
 - Antiviral medications, such as neuraminidase inhibitors, have the ability to reduce the time that viruses replicate.



Why in News?

- Recently, the **World Health Organization** said a **person in Mexico had died** in the first confirmed human case globally of infection with the **H5N2 variant of bird flu**.

TB elimination Drive in India

About Tuberculosis TB:

- TB is an **infectious disease** caused by the bacterium **Mycobacterium tuberculosis**.
- Transmission:** It primarily spreads through the **air when an infected person coughs or sneezes**, releasing tiny droplets containing the bacteria.
- Symptoms:** Include a persistent cough, chest pain, weakness or fatigue, weight loss, fever, and night sweats.
- Types of TB:**
 - Pulmonary TB: Affects the lungs.
 - Extra-pulmonary TB: Affects other parts of the body, such as the brain, kidneys, or spine.
- Treatment:**
 - Antibiotics are used as a course of treatment over several months.
 - To ensure TB eradication and prevent antibiotic resistance, complete the full antibiotic course.

India's TB Target:

- India has set an ambitious goal to eradicate tuberculosis (TB) five years ahead of the global target, **by the year 2025**.
 - The **World Health Organization (WHO)** has a strategy to end the global tuberculosis (TB) epidemic by **2035**.
- In India, almost 80% of basic primary care is still provided by the commercial health sector.

TB CASES IN INDIA OVER THE YEARS

	India TB Report 2020	2023	2024
Estimated TB cases	26.9 lakh	27.4 lakh	27.8 lakh
Number of cases reported	24.04 lakh	24.2 lakh	25.5 lakh
Reporting from private sector	6.8 lakh	7.3 lakh	8.4 lakh
% cases from private sector	28.20%	30%	32.90%
Estimated mortality	4.36 lakh	3.2 lakh	3.2 lakh

Why in News?

- The Indian Council of Medical Research (ICMR) is looking at reworking the protocol for the TB-free initiative in India.

New Technology

New Portable Atomic Clock

About Atomic Clock:



- It is a highly precise **timekeeping device** based on the vibrations of atoms, usually components like Cs-133 are used to quantify time.
- Widely used in **scientific research, telecommunications, navigation systems (GPS), and space exploration.**
- It works by detecting the frequency of **electromagnetic radiation** that the atoms absorb or release when they change energy levels.
- The duration of a second is determined by the resonance frequency of these transitions.



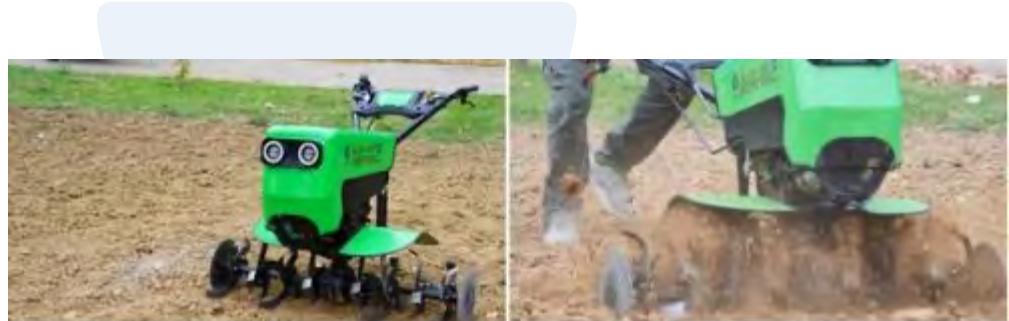
Why in News?

- Recently, researchers have developed a **portable optical Atomic Clock for shipboard use.**

CSIR-CMERI's Innovative Electric Tiller

About Electric Tiller:

- They break up soil, mix in compost or fertilizer, and prepare the ground for planting.
- The tiller is a powerful agricultural tool that offers **improved torque and field efficiency.**
- The electric tiller can **cut operational costs by up to 85%**, offering significant financial benefits to farmers.
- It is designed to meet the demands of **small-to-marginal farmers**, who make up **more than 80% of all farmers** in India with land **holdings of less than two hectares.**



Weeding operation using Rotavator



Why in News?

- Recently, the **Council of Scientific and Industrial Research (CSIR)-Central Mechanical Engineering Research** launched the Electric Tiller.



Probable MCQs

1. Recently MOND theory was in news, it is associated with:

- (a) Dark matter in galaxies
- (b) Black hole formation
- (c) Stellar nucleosynthesis
- (d) Quantum entanglement

2. Consider the following statements:

- 1. India aims to eradicate tuberculosis (TB) by the year 2025, ahead of the global target set by the WHO.
- 2. WHO aims to eliminate the TB epidemic by 2030 as part of its End TB Strategy.

Which of the above statements are correct?

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

Ans: (c)

3. With regard to the H5N2 variant of avian influenza, consider the following statements:

- 1. The H5N2 variant of avian influenza is a subtype of the Influenza A virus that has a high potential for pandemic outbreaks.
- 2. Neuraminidase inhibitors are used as antiviral medications to treat H5N2 infections.

Which of the statements given above is/are correct?

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

Ans: (c)

4. Recently Mifepristone is in the news, is associated with:

- (a) A treatment for diabetes.
- (b) An anti-inflammatory drug.
- (c) A medication for inducing abortion.
- (d) A vaccine for COVID-19.

Ans: (c)

5. Consider the following statements regarding the Zero Debris Charter:

- 1. It is an international initiative aimed at reducing space debris and promoting sustainable practices in space exploration.
- 2. The Zero Debris Charter specifically targets the reduction of oceanic plastic pollution by advocating for stricter regulations on plastic production and disposal.

Which of the statements given above is/are correct?

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

Ans: (a)

HISTORY IN NEWS: JUNE (2024)

PM VISITS VIVEKANANDA ROCK MEMORIAL IN KANYAKUMARI

GURUNG COMMUNITY: NEPAL'S HONEY GATHERERS

JAYA JAYAHE TELANGANA' STATE SONG

JAITKHAMB

GI TAG FOR DODOL

HMAR-KUKI-ZOMI TRIBES

KHEER BHAWANI TEMPLE

NEW CAMPUS OF NALANDA UNIVERSITY

POPULARITY OF DAKHNI LANGUAGE

THIS DAY IN HISTORY

LEARN HISTORY FROM THE BEST EDUCATORS

Sources of History

Archaeological Sources

- Stone Tools
- Inscriptions
- Coins
- Monuments
- Pottery

Artefacts

- Artefacts
- Prasasti
- Nature?
- Eg. Religious
- Didatic
- Admin
- Commerce
- Eulogistic
- Votive
- Denotative
- Literary

- Metal
- Type
- Punch-marked
- Figure-Impressioned

- Stupa
- Pillars
- Caves
- Temples
- Sculpture
- Seals

- Material
- Colour
- Paintings Etc.

Ancient History- Pratik Nayak ©

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- Salma Yes
- Ayush joined
- Sajid Weapons?
- Garima yes sir
- Ashish fossils
- Divya Ji SIR
- Ankita Yes sir
- Satyajit Ok kanishk
- Ashish yes sir
- Rishabh Ji

JUMP TO LATEST

6 History and Culture



PM Visits Vivekananda Rock Memorial in Kanyakumari

Why in News?

- Prime Minister Narendra Modi visited Bhagavati Amman temple and Vivekananda Rock Memorial in Kanyakumari, Tamil Nadu, to mark the culmination of Lok Sabha election campaign.

About Kanyakumari, An Ancient temple town:

- Located at the southern tip of mainland India, Kanyakumari is an ancient temple town named after the virgin goddess Devi Kanyakumari.
- It finds mention in the Greco-Roman text **Periplus of the Erythraean Sea**.



About Bhagavati Amman temple:

- Dedicated to goddess Kanyakumari.
- One of 51 Shakti Peethas, shrines dedicated to various forms of Parashakti – across India.

About Vivekananda Rock Memorial in Kanyakumari, Tamil Nadu:

- In 1892, Swami Vivekananda swam from the shores of Kanyakumari to the rocky islet to meditate, where he is believed to attain enlightenment.
- The Vivekananda Rock is a tiny rocky islet located some 500 metres from Kanyakumari's **Vavathurai beach**.
- There are legendary tales of Goddess Kanyakumari praying to Lord Shiva on this rock.
- The memorial features two primary structures: the **Vivekananda Mandapam**, which houses an impressive bronze statue of the revered Swami Vivekananda, and the **Shripada Mandapam**, which contains footprints believed to belong to Goddess Kanyakumari.

Gurung Community: Nepal's Honey Gatherers

About Gurung Community:

- The Gurungs are a **Nepalese ethnic group** who live in the **Himalayan foothills**.
- They are **migrated from Tibet to Nepal** around the **sixth century**.
- The **folklore of Gurungs** goes back to the tales of "Ghale raja" (King of ghale).
- Gurung people predominantly live in Nepal. They are also scattered across **India in Sikkim, Assam, Delhi, West Bengal**.

Why in News?

- It is being reported that the rising temperatures in the Himalayas could disrupt honey production by the Gurung community.



'Jaya Jayehe Telangana' state song

About 'Jaya Jayehe Telengana' Song:

- The song was composed by Indian poet and lyricist Ande Sri.
- Celebrated: **June 2nd** (annually)
- Objective:** To commemorate Telangana's establishment as an independent state in India.
- The Andhra Pradesh Reorganization Act of 2014 divided Andhra Pradesh into two distinct states: Andhra Pradesh (residuary) and Telangana.

Why in News?

- Recently, the Telangana government has declared "**Jaya Jayehe Telengana**" the state song.

Jaitkhamb



About Jaitkhamb:

- Also known as the **Victory Pillar**, holds significant importance for the **Satnami community in Chhattisgarh**.

About Satnami Community:

- 1657: Birbhan** established the Satnami community in **Narnaul** (Present day Haryana)
- The Bhakti poet **Kabir** popularized the term "**true name**," or "**sat naam**," in the **fifteenth century**.
- Three principles are given priority by the sect:
 - Adorn the attire of a Satnami devotee.
 - Do not tolerate any injustice or oppression in any form.
 - Earn money through proper means.
- The sect **opposes caste based discrimination** and strong **emphasis on social equality**.

Why in News?

- The desecration of a **Jaitkhamb (a religious structure)** was met with violent protests by the **Satnami community in Chhattisgarh**.



GI Tag for DODOL

About Dodol:

- Dodol is a traditional sweet of Goa, made from rice flour, coconut milk, and black palm jaggery.
- Traditionally, during Christmas, Christian families send sweets to relatives and neighbors.



Benefits of a GI Tag:

- A GI tag identifies goods as coming from a certain area and highlights their special features.
- Act as a trademark in the global market, protecting authors from duplication and assisting buyers in recognizing genuine goods.
- In order to sell sweets with the GI stamp on the box, bakers and retailers must register.

Why in News?

- Recently, The government of Goa has submitted an official application to designate the **Geographical Indication (GI) tag for traditional Sweet dodol.**

Hmar-Kuki-Zomi Tribes

About Hmar-Kuki-Zomi tribes:

- Scheduled tribe ethnic group** from the states of **Manipur, Mizoram, Assam, and Meghalaya** in **Northeast India**.
- They belong to the **Chin-Kuki-Mizo group** of tribes and are recognised as **Scheduled Tribe under the Constitution of India**.



About Indigenous Tribes Advisory Council:

- Established under the **Fifth Schedule** of the Indian Constitution.
- It advises on Scheduled Tribes' welfare, comprises legislative members mainly from Scheduled Tribes, and is consulted by the Governor.

Why in News?

- Recently, the **Indigenous Tribes Advisory Council** reported that recent violence has completely separated the **Hmar-Kuki-Zomi tribal people of Jiribam from the Meitei community in the district of Manipur**.



Kheer Bhawani temple

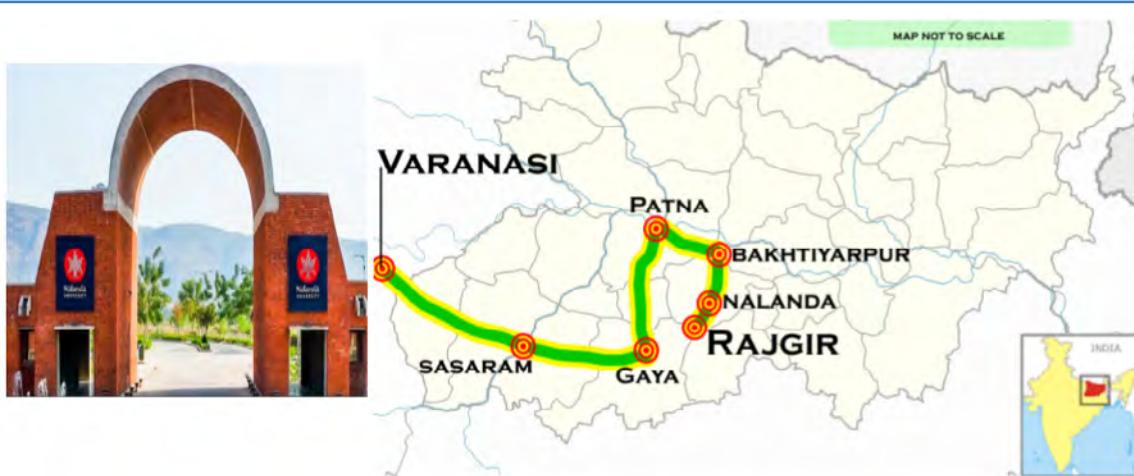
About Kheer Bhawani Temple:

- Located in Ganderbal district, Kashmir Valley, Jammu and Kashmir.
- This temple is one of the most important temples for Kashmiri Pandits.
- **Deity: Goddess Ragnya Devi**, an incarnation of **Goddess Durga**.
- The temple is named after the offering of ‘kheer’ (rice pudding) by devotees.
- **Annual Festival:** Zhestha Ashtami, attracting thousands of devotees.

Why in News?

- Thousands of Kashmiri Pandits gathered at the **Kheer Bhawani temple** in Ganderbal district for the annual Zhestha Ashtami festival.

New Campus of Nalanda University



About Nalanda:

Aspect	Details
Founded By	Kumara Gupta of the Gupta dynasty in the 5th century C.E. in Bihar.
Subjects Offered	Theology, grammar, logic, astronomy, medicine etc.
Architecture	<ul style="list-style-type: none"> - Spread over 14 hectares. - Included temples, monasteries (viharas), classrooms, meditation halls, and libraries. - Libraries called “Dharmaganja” with collections in Ratnasagara, Ratnadadhi, and Ratnaranjaka.
Famous Scholars	<ul style="list-style-type: none"> - Aryabhata, the mathematician and astronomer. - Xuanzang (Hiuen Tsang) and Yijing, Chinese travelers.
Decline and Destruction	<ul style="list-style-type: none"> - Destroyed in the 12th century by Bakhtiyar Khilji. - Libraries burned and the university abandoned.
Revival Efforts	<ul style="list-style-type: none"> - Nalanda University Act 2010 established a new university near the ancient site. - New campus is spread across 455 acres in Rajgir, 12 km from the ancient ruins.



Why in News?

- Recently, the campus of Nalanda University was formally inaugurated by the Prime Minister of India in Rajgir, Bihar.

Popularity of Dakhni Language

About Dakhni Language:

- It is also known as **Deccani or Dakhnani**, is a language spoken in the **Deccan region of India**.
- It is a variant of **Urdu, influenced by Marathi, Telugu, Kannada, and Arabic**.
- Its origins can be traced to the 14th century when the Deccan and Bahmani Sultanates were in power.
- Muhammad Quli Qutb Shah**: A 16th-century poet and the founder of Hyderabad, known for his Dakhni ghazals and couplets.
- Ibrahim Adil Shah II**: The Sultan of Bijapur, who was a patron of arts and literature and wrote in Dakhni.

Why in News?

- Recently, the campaign to the Lok Sabha elections in Telangana, especially in Hyderabad, was full of quips and comebacks in the **Dakhni language**.

This Day in History

Date	Year	Event
June 1	1972	<ul style="list-style-type: none"> Shimla Agreement signed between India and Pakistan <ul style="list-style-type: none"> It was signed on July 2, 1972, between India and Pakistan. It followed the 1971 Indo-Pak War that led to the creation of Bangladesh.
June 2	2014	<ul style="list-style-type: none"> Telangana officially became the State of India. <ul style="list-style-type: none"> Telangana officially became the 29th state of India on June 2, 2014. It was formed by splitting the existing state of Andhra Pradesh.
June 3	1947	<ul style="list-style-type: none"> Mountbatten Plan announced, outlining the partition of India. <ul style="list-style-type: none"> It is also known as the 3 June Plan, which was announced on June 3, 1947. It was presented by Lord Louis Mountbatten, the last Viceroy of British India. It outlined the process for the partition of British India into two independent nations: India and Pakistan
June 7	1893	<ul style="list-style-type: none"> Mahatma Gandhi ejected from a train in South Africa, a pivotal moment. <ul style="list-style-type: none"> This incident is widely regarded as a turning point in Gandhi's life to fight against discrimination. This incident was took place at Pietermaritzburg station in South Africa.



June 18	1983	<ul style="list-style-type: none"> India won its first Cricket World Cup under the Captainship of Kapil Dev. <ul style="list-style-type: none"> It took place in Lord's Cricket Ground, London, England India defeated the two-time defending champions West Indies in finals and clinched the title.
June 21	2015	<ul style="list-style-type: none"> First International Day of Yoga celebrated worldwide. <ul style="list-style-type: none"> 2014: The United Nations General Assembly declared June 21 as International Day of Yoga.
June 23	1757	<ul style="list-style-type: none"> Battle of Plassey, marking the beginning of British rule in India. <ul style="list-style-type: none"> It was a decisive conflict between the British East India Company and the Nawab of Bengal, Siraj-ud-Daulah. The British East India Company emerged victorious.
June 25	1975	<ul style="list-style-type: none"> Prime Minister Indira Gandhi declared a state of emergency under Article 352 of the Indian Constitution. <ul style="list-style-type: none"> Lated from 21 months June 1975 to March 1977 Issued by President Fakhruddin Ali Ahmed
June 27	1806	<ul style="list-style-type: none"> Sepoy Mutiny at Vellore Fort against the British East India Company. <ul style="list-style-type: none"> Soldiers raised the flag of Tipu Sultan (former ruler of Mysore)

Probable MCQs

1. With reference to the historical places in India, Consider the following pairs:

Name of Historical places	Location
Kheer Bhawani temple	Ganderbal, Jammu & Kashmir
Vivekananda Rock Memorial	Ramanathapuram, Tamilnadu
Jaitkhamb	Ranchi, Jharkhand

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

Ans: (a)

2. The Dakhni language is a variant of which language?

- (a) Hindi
- (b) Urdu
- (c) Bengali
- (d) Gujarati

Ans: (b)

3. Which one of the following relates to Dodol, that was recently in the news?

- (a) A traditional dance form of Goa performed during Christmas festivities.
- (b) A traditional sweet of Goa made from rice flour, coconut milk, and black palm jaggery.



- (c) A historic fort in Goa known for its Christmas celebrations.
(d) A religious festival observed by Christians in Goa during December.

Ans: (b)

4. Consider the following statements about ancient Nalanda University:

1. The original Nalanda University was founded in the 5th century C.E. by Kumara Gupta of the Gupta dynasty.
 2. The Chinese traveller Fa-Hien visited Nalanda University in the 7th century.
- Which of the above statements is/are correct?
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Ans: (a)

5. The Gurung community is primarily associated with which country?

- (a) India
(b) Nepal
(c) Tibet
(d) Bhutan

Ans: (b)

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CURRENT AFFAIRS IN NEWS: JUNE (2024)

AWARDS AND PRIZES

BOOKS IN NEWS

PERSON IN NEWS

PLACES IN NEWS

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Net International Investment Position (NIIP)

The net claims of nonresidents on India increased by \$34.3 billion during the second quarter (Q2) of FY23 and stood at \$389.6 billion in September, according to data released by the Reserve Bank of India on India's International Investment Position (IIP).

- The **net international investment position** is the difference in the external financial assets and liabilities of a country. External debt of a country includes government debt and private debt.
- External assets publicly and privately held by a country's legal residents are also taken into account when calculating NIIP.

Vibrant Village Programme (VVP)

Union Home Minister asks border-guarding forces to strengthen **Vibrant Village Programme** and ensure welfare programmes are implemented

- It was announced in the 2022-23 budget with an aim to enhance infrastructure in border villages along **India's border with China**.
- This objective will be met by strengthening infrastructure across villages located near the **Line of Actual Control (LAC)**.
- Activities include Housing, Tourism promotion, Road Infrastructure, Renewable Energy, livelihood generation etc.

Community knowledge in the border management



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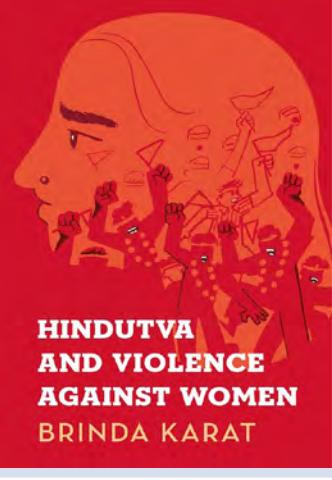




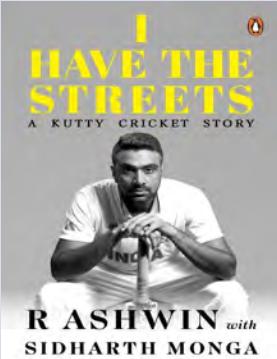
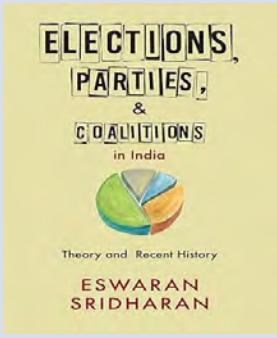
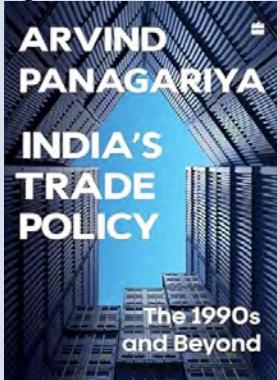
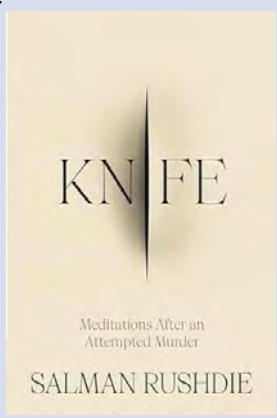
Awards and Prizes

Awards	Brief Description
PEN Pinter Prize 2024	<ul style="list-style-type: none"> • Arundhati Roy Awarded for her outstanding literary work and unwavering commitment to political activism and human rights. • Arundhati Roy is celebrated for her literary excellence, notably for her novels “The God of Small Things” and “The Ministry of Utmost Happiness.”
RBI Awarded “Risk Manager of the Year Award”	<ul style="list-style-type: none"> • For 2024, Awarded by Central Banking, a distinguished organization that is headquartered in London, United Kingdom.
2024 Kavli Prize	<ul style="list-style-type: none"> • Eight well known scholars from American colleges honored for great work in neuroscience, astrophysics, and nanoscience. <ul style="list-style-type: none"> ○ ASTROPHYSICS: David Charbonneau and Sara Seager ○ NANOSCIENCE: Robert Langer, Armand Paul Alivisatos, and Chad Mirkin ○ NEUROSCIENCE: Nancy Kanwisher, Winrich Freiwald, and Doris Tsao made

Books in News

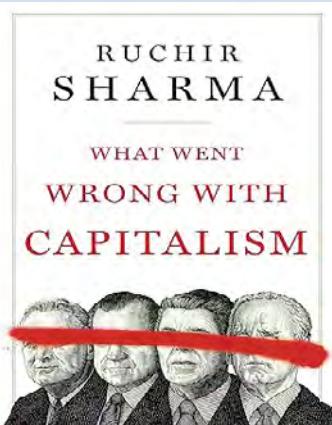
Book Title	Author(s)	Brief Description
Hindutva and violence against women  <p>HINDUTVA AND VIOLENCE AGAINST WOMEN BRINDA KARAT</p>	Brinda Karat	<p>It discusses social, political, and cultural implications of Hindutva & violence against women.</p>



I have the Streets 	R. Ashwin & Sidharth Monga	<ul style="list-style-type: none">It covers R. Ashwin's journey from street cricket to international stardom.
Elections, Parties, and Coalitions in India 	Eswaran Sridharan	<ul style="list-style-type: none">It analyzes India's electoral system, political parties, coalition governments, and the complexities of Indian democracy's evolution and voting patterns.
India's Trade Policy: The 1990s and Beyond 	Arvind Panagariya	It examines India's trade policies post-1990s liberalization, analyzing their impact on economic growth, global trade positioning, and future directions.
Knife 	Salman Rushdie	<ul style="list-style-type: none">It explores themes like violence, identity, or cultural conflict with magical realism and complex narratives.



What went wrong with Capitalism



Ruchir Sharma

- It likely critiques global capitalism, analyzing economic trends, inequality, and systemic issues, possibly proposing alternative economic models.

Person in News

Claudia Sheinbaum Pardo



- She is elected **Mexico's first female President**.

Pandit Rajeev Taranath



About Pt Rajeev Taranath (1932-2024):

- He was born in Bangalore, began studying music, song, and poetry with his father from a young age.
- He was honored with the Padma Shri and the Sangeet Natak Akademi award by the Government of India.
- **1998:** received the Chowdiah Memorial Award in Karnataka.
- Distinguished disciple of the great sarod maestro Ustad Ali Akbar Khan.

Mark Rutte



- NATO has named Dutch Prime Minister Mark Rutte as its next Secretary-General.



Places in News

Places	Brief Description
<p>Lipulekh Pass</p>  <p>Lipulekh pass (Kalapani) Lowest point 11,980 ft Highest point 20,280 ft Uttarakhand Dharchula INDIA NEPAL CHINA</p>	<ul style="list-style-type: none">high-altitude mountain pass located in the Kumaon region of Uttarakhand, near the tri-junction of India, Nepal, and China.connects Uttarakhand with the Tibet region of China.first Indian border post to open for trade with China in 1992, followed by Shipki La in 1994 and Nathu La in 2006.
<p>Rafah Crossing</p>  <p>Rafah Crossing Jerusalem GAZA ISRAEL Mediterranean Sea GAZA ISRAEL Khan Younis EGYPT Rafah Crossing Erez Crossing Gaza City Evacuation area Wadi Gaza Kerem Shalom goods crossing Legend: — Israeli-declared evacuation road — Urban areas — Refugee camps</p>	<ul style="list-style-type: none">It's the southernmost post of exit from Gaza and borders Egypt's Sinai peninsula.Under a 2007 agreement between Egypt and Israel, Egypt controls the crossing but imports through the Rafah crossing require Israeli approval.

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