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CA CAPSULE
JULY THIRD WEEK
UPSC/MPSC 2025-26

UPSC/MPSC

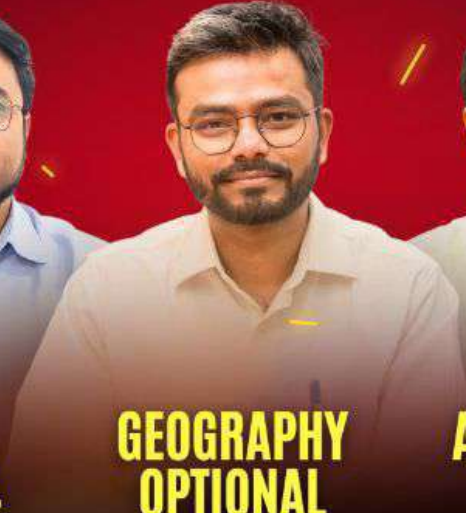
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Table of Contents

1. General Studies I..... 1

1.1 Indian Society- Protecting India's Linguistic

Secularism..... 1

Linguistic Diversity Landscape of India 1

Constitutional Safeguards for Linguistic

Secularism in India..... 1

Contemporary Challenges to Linguistic

Harmony in India 1

Way Forward for Strengthening Linguistic

Harmony 2

Conclusion 3

Question for Practice: - 3

Trends and Milestones in India's Defence

Export Growth..... 10

Operation Sindoor as a Catalyst for India's

Defence Export Growth 10

Indigenous Weapons and Systems Used in

Operation Sindoor 10

Key Factors Fuelling India's Defence Export

Rise 11

Hurdles in India's Defence Export Expansion

..... 11

Way Forward 11

Conclusion 12

Question for Practice: - 12

2. General Studies II 4

2.1 Resignation of Vice-President 4

About Vice-President of India:..... 4

Constitutional Provisions for the Vice

President of India:..... 4

Election and Eligibility:..... 4

Role of Vice-President:..... 5

Criticism: 5

Scholarly & Committee Observations:..... 5

Conclusion: 5

Mains question for practice: 5

2.2 Women in the STEM Sector 5

The STEM Paradox in India: 6

Need for Gender Inclusion in STEM 6

Challenges Faced by Women in STEM: - 6

Government Initiatives: - 7

Way Forward: - 7

Conclusion: - 7

Question for Practice:..... 7

PRAYAAS Shorts- UPSC & MPSC..... 13

1.Nominated members of Rajya Sabha 13

2. Three-day national seminar (13-15 July 2025) to

mark Sushruta Jayanti..... 13

2.1 Other Notable personalities associated

with ayurveda in Ancient India 13

3. Flue Gas Desulphurisation (FGD) 13

4. Appointment of Governor 15

5.One District One Product (ODOP) Scheme 15

5.1 PM Formalisation of Micro Food

Processing Enterprises (PMFME) scheme 15

6. National Pharmaceutical Pricing Authority

(NPPA)..... 15

7. Behdeinkhlam Festival 16

8.RhoDIS India Programme 16

8.1 Indian Rhino 16

8.2 Wildlife Institute of India (WII)..... 16

9. Carbon Fibre 17

10. Cabo Delgado..... 17

11. Kaziranga Releases First Grassland Bird Survey

Report..... 17

11.1 Passive Acoustic Recording Monitoring

(PARM) Technology 17

11.2 Kaziranga National Park – Assam 18

12. Swachh Survekshan 2024-25 Awards 18

13.ADEETIE Scheme 18

13.1 Bureau of Energy Efficiency (BEE) 18

14.Prime Minister Dhan-Dhaanya Krishi Yojana

(PMDDKY)..... 19

3. General Studies III..... 8

3.1 Fifth Generation Fighter Jet..... 8

What is fifth Generation Fighter jet? 8

Key Features of 5th Generation Fighter Jets: .. 8

Advanced Medium Combat Aircraft:..... 8

Key Features & Capabilities..... 8

Significance of Fifth-Generation Fighter Jets: . 9

Challenges in Developing and Operating Fifth-

Generation Fighter Jets: 9

Conclusion: 9

Mains question for practice: 9

3.2 India's Defence Exports 10

15. Mitochondrial Replacement Therapy (MRT)	19
16. Global Findex 2025	19
16.1 World Bank	19
17. Netra MkII - Next-generation Airborne Early Warning and Control System (AWACS)	20
18. Banni Grassland in Gujarat Ready for Cheetah Reintroduction.....	20
19. Glass Grid Rapid Technology	20
20. European Free Trade Association (EFTA).....	20

PRAYAAS Shorts- MPSC Specific.....21

1. National News	21
1.1 India's second longest cable-styled bridge in Karnataka's Shivamogga	21
1.2 Traditional Knowledge Digital Library.....	21
1.3 Prime Minister Dhan-Dhaanya Krishi Yojana.....	21
1.4 Vice President Jagdeep Dhankhar resigns	21
2. State News	22
2.1 India's first Digital Nomad Village	22
2.2 India's First Ro-Ro Ferry Service.....	22
3. Maharashtra	22

3.1 Tesla opens first India showroom at Mumbai's BKC.....	22
3.2 Maharashtra becomes 1st State in India to Grant Agricultural Status to Livestock & Poultry Farming	22
3.3 First campus of IICT.....	22

4. Award	22
4.1 2025 UN Population award*	22
4.2 Kalinga Ratna Award.....	22
4.3 'Swachh Survekshan' awards*	23

5. Defence	23
5.1 India joins bilateral military exercise in Australia.....	23
5.2 Akash Prime	23
5.3 'Prachand Shakti' Exercise	23
5.4 SIMBEX exercise.....	23

6. Appointment.....	24
6.1 Senior IPS officer Sonali Mishra first woman to lead RPF.....	24

PRAYAAS

MAINS FOCUS

1. General Studies I

1.1 Indian Society- Protecting India's Linguistic Secularism

News Context

- Recent **linguistic unrest in Maharashtra** has brought India's commitment to linguistic secularism and constitutional unity into sharp focus.

Syllabus of Mains – GS 1- Society- Regionalism & Secularism

Linguistic Diversity Landscape of India

- According to the 2011 Census**, India has 121 languages and 270 mother tongues.
- Around 96.71% of the population speaks one of the 22 scheduled languages as their mother tongue.
- The **Eighth Schedule of the Constitution currently lists 22 languages**, granting them official recognition.
- The **remaining 99 languages are classified as non-scheduled languages**, lacking formal constitutional status.
- This classification reflects both India's vast linguistic diversity and the need for inclusive language policy.

Constitutional Safeguards for Linguistic Secularism in India

- Unlike Western secularism, which emphasizes strict separation between religion and state, **Indian secularism is inclusive**, embracing both religious and linguistic plurality.
- The Indian Constitution provides several safeguards to uphold linguistic diversity and unity; these are as follows: -

1. Article 343:

- Declares **Hindi in Devanagari script as the official language** of the Union.
- Permits States to adopt their own official languages, recognizing regional linguistic identities.

2. Article 29:

- Ensures that minority communities have the **right to conserve their distinct language**, script, and culture.

3. Eighth Schedule of the Constitution:

- Lists 22 scheduled languages**
- Reflects the Constitution's commitment to protect and promote linguistic diversity.

Contemporary Challenges to Linguistic Harmony in India

Identity Politics and Linguistic Violence

- Attacks on non-Marathi speakers in Maharashtra **highlight the politicization of linguistic identity** under the **guise of cultural preservation**.
- Similar tensions have emerged in Assam over Assamese language primacy in official communication.

Fears of Language Imposition

- Resistance to Hindi promotion in non-Hindi states, especially Tamil Nadu, Karnataka, and parts of the Northeast, over **concerns of diluting local languages**.
- Opposition intensified during **debates on the National Education Policy (NEP) language** provisions.

Marginalization of Smaller Languages

- Several tribal and minority languages face declining speaker base due to dominance of regional majority languages (e.g., Gondi, Bodo).
- Lack of institutional support accelerates linguistic erosion.

Language Purism Movements Turning Intolerant

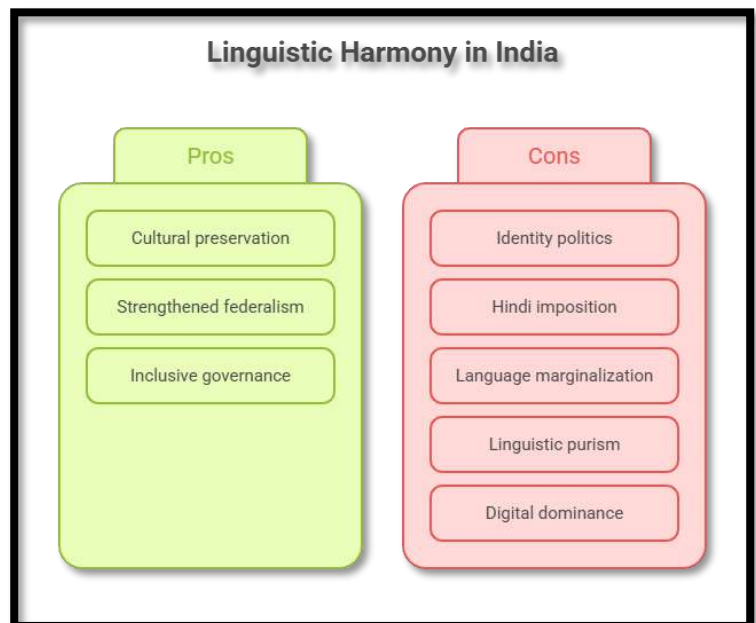
- Campaigns like **Meitei linguistic purism in Manipur**, aimed at removing loanwords, have created cultural gatekeeping and suppressed natural linguistic evolution.

Undermining Federal Pluralism

- Political use of language identity to exclude or intimidate **erodes trust in India's multilingual federal framework**.
- Reduces space for cooperative cultural coexistence between states.

Digital and Market Dominance of Certain Languages

- English and Hindi dominate digital platforms, e-governance tools, and mainstream media, **sidelining regional languages** in technology adoption.
- Limits access for non-speakers to government schemes and online education.



Inadequate Mother-Tongue Education Implementation

- Despite NEP 2020's emphasis on mother-tongue instruction till Grade 5, many states face shortage of teaching material and trained teachers in local languages.

Way Forward for Strengthening Linguistic Harmony

Constitutional Safeguards in Action

- Implement **provisions under Articles 29 and 30** to protect linguistic minorities.
- Strengthen the role and outreach of the Commissioner for Linguistic Minorities.

Political Accountability

- Political leaders **must avoid language-based divisive rhetoric** for electoral advantage.
- Promote inclusive narratives that celebrate India's linguistic diversity.

Promotion of Multilingualism

- Encourage multilingual education through the three-language formula** with flexibility for regional contexts.
- Increase regional language content in media, entertainment, and public communication.

Support for Non-Scheduled Languages

- Extend **policy and financial support to preserve and promote languages** outside the Eighth Schedule.
- Document, digitize, and integrate endangered languages into school curricula.

Policy Safeguards for Equity

- Ensure **equitable use of multiple languages in administration**, education, and e-governance.
- Mandate bilingual or multilingual signage in public spaces.

Civic Engagement and Public Awareness

- Promote linguistic respect through inclusive classroom activities, cultural exchanges, and community festivals.
- Encourage citizens to use and learn multiple Indian languages.

Institutional Oversight and Monitoring

- Regular review of language policy compliance at state and central levels.
- Use technology to track and promote the availability of public services in regional languages.

Conclusion

- **Justice V.R. Krishna Iyer's words**, "I am all for Hindi as a personal preference, but I am all against Hindi by compulsion. Linguistic militancy will alienate and divide, but federal pluralism is democratic sensitivity," capture the essence of India's linguistic ethos.
- The **country's strength lies in its ability to embrace multiple languages, faiths, ideas, and ways of life with openness**. In an interconnected and globalising world, retreating into linguistic or cultural insularity risks fragmenting society and eroding the secular fabric. Upholding linguistic harmony through voluntary acceptance, not coercion, is not just a constitutional responsibility but a democratic necessity for India's unity in diversity.

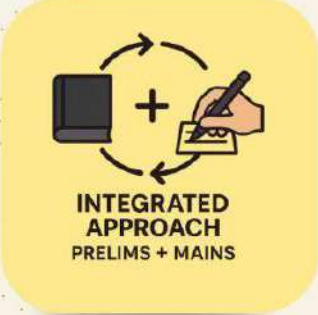
Question for Practice: -

- In a multilingual society like India, linguistic harmony is essential for social cohesion and national integration. In this context, critically analyse the concept of 'linguistic secularism' and the challenges it faces in contemporary India. (10 Marks, 150 Words)




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2.General Studies II

2.1 Resignation of Vice-President

News Context:

- The 14th Vice-President of India Mr. Jagdeep Dhankhar leaves office with two years left in his term; decision comes on the first day of Monsoon Session of Parliament; stepping down to abide by medical advice.

Syllabus of Mains – GS-2- Structure, Organization and Functioning of the Executive and the Judiciary— Ministries and Departments of the Government; Pressure Groups and Formal/Informal Associations and their Role in the Polity.

About Vice-President of India:

- The Vice President is the **second-highest constitutional office in India** and serves as the **ex-officio Chairman** of the Rajya Sabha (the Upper House of Parliament).
- The **Vice President takes over as Acting President if the President dies, resigns, is removed**, or is incapacitated up to six months or until a new President is elected.
- Lifetime term is five years**, with eligibility for re-election, though the incumbent continues until a successor assumes office.
- Election is conducted indirectly** by an **electoral college of members of both houses of Parliament** via proportional representation with a single transferable vote and secret ballot.
- The Vice President also **holds chancellorships** and other ceremonial roles at certain universities and institutions.

Constitutional Provisions for the Vice President of India:

- Article 63** – The Vice-President of India. "There shall be a Vice-President of India."
- Article 64** – The Vice-President to be ex officio Chairman of the Council of States (Rajya Sabha).
- Article 66** – Election of Vice-President.
- Article 67** – Term of Office and Removal.
- Article 68** – Time of Holding Election to Fill Vacancy.

Election and Eligibility:

- Electoral College:**
Members of both Houses of Parliament (Lok Sabha and Rajya Sabha). **Includes nominated members** (which is different from the Presidential election).
- Voting Method:**
The election uses a **Proportional Representation System** by means of a Single Transferable Vote (STV), and voting is done by secret ballot.
- How it works:**
 - Each MP ranks the candidates in order of preference.
 - To win, a candidate must get more than 50% of the valid votes.
 - If no one gets this in the first round, the candidate with the least votes is eliminated, and second preferences are counted — this continues until a winner is found.
- Conduct of Election:**
 - The election is conducted by the Election Commission of India.
 - The schedule is usually announced a few weeks before the Vice President's term ends or when there's a vacancy.
 - All rules, ballot papers, counting, and results are handled under the guidance of the Election Commission.
- Eligibility:**
To be eligible to contest the election for Vice President, a person must meet the following conditions as per Article 66 of the Constitution:
 - Citizen of India
 - At least 35 years old
 - Qualified to be elected as a member of the Rajya Sabha
 - That means he/she must meet the same qualifications required for being a member of the upper house.
 - Not hold any office of profit

- f. The candidate should not be holding a salaried government job or post, unless permitted by the Constitution.

Role of Vice-President:

- **Constitutional Role and Functions:**

A] Ex-officio Chairman of the Rajya Sabha:

1. The Vice President presides over the proceedings of the Rajya Sabha, ensuring discipline, impartiality, and adherence to rules.
2. He/she can cast a deciding vote in case of a tie.
3. Though not a member of the House, the Vice President plays a key role in shaping legislative debates.

B] Acting as President:

1. In case of vacancy, resignation, removal or death of the President, the Vice President assumes the role of Acting President.
2. Performs all functions of the President for a maximum period of 6 months until a new President is elected.

C] Symbol of Continuity and Stability:

1. The Vice President serves as a constitutional backup, ensuring there is no vacuum in the executive leadership during crises.
2. Enhances the resilience of the Indian political system.

Criticism:

- **Largely Ceremonial Role:** The Vice President has limited active powers. Outside of chairing the Rajya Sabha and acting as President in rare cases, **there is no meaningful day-to-day constitutional role.**
- **Limited Involvement in Governance:** Unlike the U.S. Vice President or the Indian President, the Indian **Vice President does not participate in cabinet meetings, policymaking, or administration.** This raises concerns about under-utilization of a high constitutional office.
- **Lack of Wider Mandate:** Elected only by MPs, the Vice President **lacks a broader democratic mandate** unlike the President (elected by MPs + MLAs). This reduces the legitimacy of the office in the eyes of the public.
- **Perceived Partisanship as Rajya Sabha Chairperson:** The **office is expected to maintain neutrality, but Vice Presidents are often former party politicians.** This sometimes leads to biased conduct, disruption in proceedings, and erosion of parliamentary impartiality.
- **Short-Term or Standby Role as President:** The Vice President steps in as **acting President only temporarily and cannot complete the President's term.** This makes the "stand-in" function limited in real impact.
- **Cost vs Utility Debate:** Critics argue that maintaining a separate Vice President's office, staff, and residence may not be justified given the narrow scope of responsibilities.

Scholarly & Committee Observations:

- Constitutional experts like **H.M. Seervai** have pointed out that the Vice President's role, **though constitutionally valid, is functionally weak.**
- **Second ARC (Administrative Reforms Commission)** did not specifically recommend reforming this office, but called for **improved neutrality and efficiency in parliamentary functioning**, which includes the Rajya Sabha Chair.
- **Dr. B.R. Ambedkar supported the creation of the office, stating:** "The Vice-President occupies a position analogous to that of the Vice-President of the United States. His normal function is to preside over the Council of States."

Conclusion:

- The Vice President holds a vital and multifaceted role in government, serving as both a key executive leader and a constitutional officer. While the position is often seen as a step below the President, the Vice President plays a critical role in ensuring continuity of leadership, presiding over the Senate, and representing the administration's policies both domestically and internationally.

Mains question for practice:

- "The office of the Vice President of India is a unique blend of legislative and constitutional responsibility, yet it remains largely ceremonial in political practice." Evaluate (10 Marks, 150 words).

2.2 Women in the STEM Sector

Context (TH):

- **Women in India continue to face enduring challenges** that limit their access to careers in Science, Technology, Engineering, and Mathematics (STEM).

Syllabus of Mains – GS-2- Issues relating to development and management of Social Sector/Services relating to Health, Education, **Human Resources**.

The STEM Paradox in India:

- Although women **make up 43% of STEM graduates in India**—one of the highest percentages among leading global economies—they account for **only 27% of the STEM workforce**.
- As per the **Periodic Labour Force Survey (PLFS) 2023–24**, the Female Labour Force Participation Rate (FLFPR) in India has **risen to 41.7%**. **Rural women show a higher participation rate (47.6%) compared to urban women (25.4%)**. Despite these improvements, a wide gender gap persists within STEM careers.
- India demonstrates a **clear “leaky pipeline” issue, where women leave the STEM workforce** at various stages due to factors such as unfriendly work environments, prevailing societal expectations, and the disproportionate burden of caregiving responsibilities.

Need for Gender Inclusion in STEM

- **Economic Advancement:** As per the **McKinsey Global Institute**, enhancing women’s participation in the Indian workforce has the **potential to increase the country’s GDP by as much as \$700 billion by 2025**. Additionally, **World Bank estimates indicate** that achieving a 50% female workforce participation rate could lead to a 1% rise in GDP growth.
- **Enhanced Innovation:** Gender-diverse teams offer a **broader range of perspectives**, contributing to more effective and **creative problem-solving** in science and technology fields.
- **Promoting Social Justice:** Increasing women’s representation in STEM **not only empowers individuals but also creates role models, challenging traditional gender roles** and encouraging future generations to pursue diverse careers.
- **Bridging the Talent Gap:** The global tech and scientific sectors are facing a talent shortage. Including more women in STEM fields can help fill this gap, **improving overall productivity** and competitiveness.
- **Improved Governance and Research Outcomes:** Studies show that gender-balanced research teams are more likely to **consider gender-sensitive issues in their work**, leading to more inclusive policies, technologies, and outcomes—especially in healthcare, AI, and climate science.
- **Global Commitments and SDGs:** Promoting gender inclusion in STEM aligns with **India’s commitment to Sustainable Development Goals** (SDG 5 – Gender Equality, SDG 4 – Quality Education, and SDG 8 – Decent Work and Economic Growth).
- **Workplace Culture and Ethics:** Greater female representation often **leads to more empathetic, ethical, and inclusive workplace environments**, reducing issues like harassment, discrimination, and toxic competitiveness.
- **Harnessing Full Demographic Dividend:** With a young population, India cannot afford to leave half of its talent pool underutilized. Encouraging women's participation in STEM is essential for sustainable and inclusive development.

Challenges Faced by Women in STEM: -

- **Gender Stereotypes and Societal Norms:** Long-standing cultural beliefs that STEM fields are more suited for men, coupled with societal expectations around caregiving and domestic responsibilities, discourage many girls from pursuing or continuing in STEM careers.
- **Workplace Barriers:** The absence of inclusive workplace environments, gender-sensitive policies, flexible work hours, and adequate maternity support often leads to attrition. Safety concerns, especially in fieldwork or late hours, and poor work-life balance further limit women’s growth in STEM.
- **Limited Career Awareness and Exposure:** In rural and marginalized communities, girls often lack access to information about STEM opportunities, role models, and hands-on exposure. This results in fewer women entering the STEM pipeline, despite having the aptitude and interest.
- **Skill-Employment Mismatch:** While a significant number of women graduate in STEM disciplines, many face difficulty in securing relevant employment. Weak industry-academia linkages, lack of internship opportunities, and outdated curricula lead to a gap between skills acquired and those demanded by the job market.
- **Lack of Mentorship and Networking:** The underrepresentation of women in senior roles leads to fewer mentors and role models for young women. This isolation limits access to professional networks, sponsorship opportunities, and career guidance.

- **Unconscious Bias and Evaluation Gaps:** Women often face subtle biases in hiring, promotion, and peer evaluation. Their contributions may be undervalued or overlooked, and leadership potential underestimated, affecting career progression.
- **Attrition in Mid-Career Stage (Leaky Pipeline):** Many women leave STEM fields mid-career due to caregiving responsibilities, lack of re-entry support, or burnout, resulting in underrepresentation at leadership levels despite a strong start.

Government Initiatives: -

- **New Education Policy (NEP) 2020:** It promotes STEM, gender inclusion, experiential learning, and integrates early life skills & technical training to enhance career readiness, especially for girls.
- **Gender Budgeting:** The share of the gender budget in the total national Budget has **increased from 6.8% in 2024-25 to 8.8% in 2025-26, with ₹4.49 lakh crore.**
- **'Beti Bachao, Beti Padhao':** A nationwide campaign aimed at improving the status of girls through education and empowerment, encouraging girls to pursue higher education, including STEM.
- **Skill India Mission:** Offers technical and vocational training, with a growing focus on skilling women in non-traditional domains, including electronics, IT, and mechanical trades.
- **Digital India:** It promotes digital literacy, e-governance, and entrepreneurship, creating pathways for women to enter the technology and innovation sectors.
- **STEM-Focused Scholarships and Fellowships:** Programmes like **Vigyan Jyoti and KIRAN support** women researchers and encourage them to pursue careers in science.

Way Forward: -

- **Strengthen Industry-Academia Linkages:** Build robust partnerships between industry and educational institutions to align STEM curricula with evolving technological demands. This includes promoting internships, live projects, and industry-led training modules that enhance employability.
- **Promote Gender-Sensitive Workplaces:** Implement and enforce inclusive workplace policies that prioritize women's safety, offer flexible work arrangements (like remote or hybrid models), and provide support systems such as paid maternity leave, childcare facilities, and return-to-work frameworks.
- **Expand Mentorship and Role Models:** Create structured mentorship programs connecting aspiring women professionals with experienced female leaders in STEM. Visibility of successful women in leadership roles helps dismantle stereotypes and motivates younger generations.
- **Enhance Career Awareness and Early Exposure:** Conduct STEM awareness campaigns in schools, especially in rural and underserved regions, to encourage girls to pursue science and technology fields from an early age. Integrating hands-on learning, robotics, and coding in school curricula can also foster interest.
- **Invest in Re-skilling and Re-entry Programmes:** Launch targeted upskilling and refresher courses for women returning after career breaks. Encourage private and public sector collaboration to create returnship programs, skill vouchers, and hiring incentives to support second-career women.
- **Encourage Policy-Level Interventions:** Governments should incorporate gender budgeting in science and technology initiatives, monitor diversity metrics in public R&D institutions, and mandate inclusion targets in STEM-related schemes like Atal Innovation Mission and Digital India.

Conclusion: -

- Bridging the gender gap in STEM is **not merely a question of equity, but a necessity for sustainable and inclusive growth.** Women bring unique perspectives, talents, and innovations that are essential in addressing the complex challenges of our time—from climate change to artificial intelligence.
- **As John Stuart Mill rightly stated: "The emancipation of women, and their full employment in all forms of work and public life, is one of the chief means of human improvement."**
- India, with its demographic advantage and growing knowledge economy, must empower its women in STEM fields to unlock this full potential. **In the words of Jawaharlal Nehru: "You can tell the condition of a nation by looking at the status of its women."**
- Promoting gender inclusion in STEM is **thus not only a moral imperative but a strategic one**—vital for economic progress, scientific advancement, and social transformation.

Question for Practice: -

- Despite having one of the highest shares of women STEM graduates globally, India continues to witness low female participation in the STEM workforce. Examine the reasons for this paradox and suggest a roadmap to improve gender inclusion in the STEM sector. (250 Words)

3.General Studies III

3.1 Fifth Generation Fighter Jet

News context:

- In a significant push towards enhancing India's indigenous defence capabilities and fostering a robust domestic aerospace industrial ecosystem, **Raksha Mantri Shri Rajnath Singh has approved the Advanced Medium Combat Aircraft (AMCA) Programme Execution Model**. The Aeronautical Development Agency (ADA) is set to execute the programme through Industry partnership.

Syllabus of Mains – GS-3- Indigenization of Technology and Developing New Technology. Internal Security

What is fifth Generation Fighter jet?

- Fifth-generation fighter jets are the most advanced fighter aircraft designed with cutting-edge stealth, agility, situational awareness, and networked warfare capabilities.
- They represent a significant evolution from earlier generations in terms of both air superiority and multirole capability.

Key Features of 5th Generation Fighter Jets:

- Stealth Technology:** Radar cross-section reduction (RCS), Internal weapons bay, Radar-absorbent materials (RAM).
- Super cruise:** Ability to fly at supersonic speeds without afterburners, enhancing fuel efficiency and combat endurance.
- Advanced Avionics & Sensor Fusion:** Real-time data integration from radar, infrared, electronic warfare systems. Pilot receives a 360-degree situational view.
- Network-Centric Warfare:** Full integration with satellites, drones, ground and naval systems. Enables coordinated multi-platform operations.
- Highly Agile Airframe:** High thrust-to-weight ratio and advanced flight control systems. Manoeuvrability for both dogfights and missile evasion.
- Multirole Capability:** Air-to-air, air-to-ground, electronic warfare, and reconnaissance roles.



Advanced Medium Combat Aircraft:

- Overview & Strategic Context:** The AMCA is **India's indigenous 5th generation, twin engine stealth multirole combat aircraft, being developed by ADA DRDO** for the IAF and future Indian Navy use. It's intended as a replacement for modern generation fighters such as the Sukhoi Su 30MKI, MiG 29, and Mirage 2000, thereby enhancing air superiority and strike capabilities.
- Timeline & Development Phases:** In March 2024, the Cabinet Committee on Security (CCS) granted approval for the prototype development phase, with funding of approximately ₹15,000 crore for five prototypes.

Key Features & Capabilities

- Stealth features:** Diverter less supersonic inlets, "S shaped" air intakes, internal weapon bays, extensive use of radar absorbent composites (~38–40%) and meta-material cloaking systems such as IIT Kanpur's Anālākṣhya.
- Performance:** Approximate MTOW of 25 tonnes, Mach speed up to 2.15, combat range ~1,600 km, internal fuel capacity ~6,500 kg.

- **Avionics & Mission systems:** AESA radar ("Uttam"), AI-based electronic pilot, sensor fusion and net-centric warfare capabilities; multi-role missions including air supremacy, SEAD, ground strike, and electronic warfare.

Significance of Fifth-Generation Fighter Jets:

- **Stealth Dominance in Air Superiority:** Fifth-gen fighters are built with stealth technology (low radar cross-section, IR signature reduction), allowing deep penetration into enemy territory without detection. **Example:** The F-22 Raptor and F-35 Lightning II of the U.S. have changed the dynamics of air combat due to their invisibility to radar and network-centric warfare capabilities.
- **Force Multiplication through Network-Centric Warfare:** Equipped with advanced sensors, AESA radars, data links, and AI-based fusion systems, 5th-gen jets act as command nodes.
- **Survivability and Lethality:** With super-cruise (sustained supersonic speed without afterburners), stealth, and internal weapons bays, they offer both high survivability and precision lethality.
- **Strategic Deterrence and Power Projection:** Possessing 5th-gen fighters signals a nation's technological prowess and military deterrence.
- **Technological Sovereignty & Industrial Capability:** Indigenous 5th-gen programs (like India's AMCA) foster self-reliance in defence technology, reduce import dependency, and catalyse the domestic aerospace ecosystem.
- **Operational Flexibility & Multi-Role Capability:** 5th-gen fighters are multi-role: capable of air-to-air, air-to-ground, SEAD (Suppression of Enemy Air Defences), electronic warfare, and intelligence missions — all in one sortie.

Challenges in Developing and Operating Fifth-Generation Fighter Jets:

- **Technological Complexity:** Developing stealth technology (e.g., radar-absorbing materials, IR signature reduction) requires advanced research and long-term testing. **Example:** India's AMCA faces difficulties in mastering diverterless supersonic intakes and internal weapons bay design.
- **Engine Development Bottlenecks:** A major weakness in India's defence ecosystem is the lack of a powerful indigenous jet engine. Development of a 110 kN-class engine for AMCA Mk-2 (with foreign collaboration) is still in early stages.
- **High Costs and Budget Overruns:** 5th-gen fighters are extremely expensive to develop, test, manufacture, and maintain. Estimated cost for AMCA development: ₹15,000 crore+, with full program cost potentially much higher.
- **Lack of Industrial Ecosystem:** India still lacks a mature military-grade aerospace industrial base, Inadequate supply chains, Limited private sector integration.
- **Delayed Timelines:** Complex R&D and bureaucratic delays push project timelines far into the future. AMCA's first flight is expected by 2028–29, with operational induction after 2035—by then, 6th-gen jets may be operational elsewhere.

Conclusion:

- As **Prime Minister Narendra Modi aptly stated during Aero India 2023**, "We are moving ahead with the vision of making India a hub of defence manufacturing. We aim not just to reduce imports but to become exporters of modern defence platforms." The development of a fifth-generation fighter jet like the Advanced Medium Combat Aircraft (AMCA) represents not just a technological leap but a strategic imperative for India.

Mains question for practice:

- "Indigenous development of fifth-generation fighter aircraft is no longer a strategic choice, but a necessity for India." Discuss in the context of the AMCA programme and evolving regional security dynamics. (15 Marks, 250 words)

3.2 India’s Defence Exports

News Context

- In the wake of **Operation Sindoor**, global interest in India’s advanced defence platforms — from hypersonic missiles and stealth fighters to laser-based weapons witnessed a significant surge.

Syllabus of Mains – GS 3- Internal Security: Various Security Forces and Agencies and their Mandate.

Trends and Milestones in India’s Defence Export Growth

- Record Expansion:** Exports surged from ₹686 crore in 2013–14 to ₹23,622 crore in 2024–25.
- Rising Private Sector Role:** Private firms contributed ₹15,233 crore, accounting for ~65% of total exports.
- PSU Performance Boost:** Defence PSUs recorded 42.85% growth, aided by streamlined export approval processes.
- Diverse Global Markets:** Exports reached ~80 countries, with major buyers including the USA, France, and Armenia.
- Broad Product Portfolio:** Exported platforms ranged from BrahMos and Akash missiles to UAVs, artillery systems, radars, and Dornier aircraft.

Operation Sindoor as a Catalyst for India’s Defence Export Growth

- Combat-Proven Credibility:** Weapons like BrahMos missiles, Akash SAMs, swarm drones, and Akashteer air-defence systems were used successfully in real combat, boosting global buyer trust.
- Market Confidence:** Defence stocks gained ~21% during operation week, reflecting strong investor faith in India’s defence industry.
- Technological Showcase:** Akashteer achieved 100% interception success; BrahMos precision strikes drew interest from countries like the Philippines and Indonesia.
- Comparative Advantage:** Indian systems outperformed Chinese-origin weapons in Pakistani use, strengthening India’s competitive image in defence markets.
- Policy Acceleration:** Government reduced procurement timelines from 6 to 2 years and advanced plans for ammunition self-reliance by end-2025.
- Private Sector Boost:** States like Tamil Nadu and Uttar Pradesh reported 5× rise in defence equipment export inquiries post-operation.
- Global Outreach:** India conducted diplomatic briefings in ~70 nations showcasing Sindoor-deployed systems, increasing market penetration.

Indigenous Weapons and Systems Used in Operation Sindoor

Weapon/System	Category	Operational Role in Operation Sindoor
SWATHI Radar	Weapon Locating Radar	Detected and tracked enemy artillery positions, enabling precise counter-battery fire.
Akash Missile	Short-Range Surface-to-Air Missile (SAM)	Intercepted and neutralised aerial threats, including drones and incoming missiles.
Pinaka MBRL	Multi-Barrel Rocket Launcher	Delivered targeted retaliatory strikes on terror infrastructure across the LoC.
LCA Tejas	Light Combat Aircraft	Ensured air superiority, conducted precision strikes, and reinforced strategic deterrence.

Key Factors Fuelling India's Defence

Export Rise

- **Opening the Market to Private Players:** Relaxed policies have allowed private companies to enter and expand in the export space, adding agility and innovation to production.
- **Simplified Clearances:** Digital approvals, removal of certain licensing requirements, and faster processing have made the export process smoother and more predictable.
- **Price Advantage:** India's ability to manufacture at lower costs and in large volumes has made its defence products competitive in global tenders.
- **Diplomatic Leverage:** Direct government-to-government arrangements have strengthened trust and facilitated large-scale deals.
- **Financing Edge:** Affordable credit lines from EXIM Bank have reduced the financial burden on importing nations.
- **Rising Global Demand:** Defence budget hikes after the Ukraine conflict have pushed many countries to seek dependable, cost-effective alternatives to Western arms.
- **Boost from Indigenisation:** With three-fourths of the capital defence budget going to domestic procurement, India's production ecosystem has become more robust and export-ready.



Hurdles in India's Defence Export Expansion

- **Humanitarian Compliance Deficit:** Absence of a mandatory legal or ethical review mechanism to assess potential buyers' human rights track record and conflict involvement creates reputational risks.
- **Technology Gaps:** Continued reliance on imported engines, advanced sensors, propulsion systems, and electronics limits the ability to export fully indigenous, high-end platforms.
- **Intense Global Competition:** Established exporters such as the US, Russia, France, and China maintain strong market dominance, backed by entrenched alliances and long-term contracts.
- **Regulatory Bottlenecks:** Multi-layered procurement and export authorisation processes often slow decision-making, reducing industry responsiveness to emerging opportunities.
- **Industrial Weaknesses:** Fragmented supply chains, inadequate maintenance/after-sales infrastructure, and slow-moving PSUs reduce global competitiveness.
- **Geopolitical Sensitivities:** Arms sales to politically volatile or diplomatically sensitive regions risk diplomatic backlash or straining strategic partnerships.
- **Limited Marketing Presence:** Inadequate participation in global defence expos and absence of aggressive brand positioning hinder visibility in competitive markets.
- **R&D Underinvestment:** Relatively low investment in cutting-edge areas such as AI-enabled combat systems, next-gen propulsion, and autonomous platforms affects technological leadership.
- **Export Financing Limitations:** While EXIM Bank support exists, the scale and coverage of financing remain insufficient compared to international competitors offering extensive credit and insurance packages.

Way Forward

- **Deepen Technology Self-Reliance:** Accelerate indigenous development of propulsion systems, sensors, avionics, and electronics through targeted R&D funding and strategic industry-academia partnerships.
- **Strengthen Global Market Presence:** Increase participation in international defence exhibitions, appoint defence attachés with export promotion mandates, and set up dedicated marketing arms for major product lines.
- **Streamline Regulatory Processes:** Introduce a single-window clearance mechanism for defence exports, with defined timelines to improve responsiveness to foreign procurement cycles.
- **Build Industrial Depth:** Develop robust tier-2 and tier-3 supplier networks, incentivise private-public partnerships in after-sales servicing, and modernise PSU production units for efficiency.
- **Expand Export Financing:** Scale up EXIM Bank credit lines and explore sovereign-backed export insurance to match competitor nations' financial packages.
- **Focus on High-Demand Segments:** Prioritise competitive, high-demand categories such as UAVs, missile systems, electronic warfare, and coastal defence platforms for targeted marketing.
- **Forge Strategic Export Alliances:** Pursue co-development and joint production agreements with friendly nations to secure long-term market access.

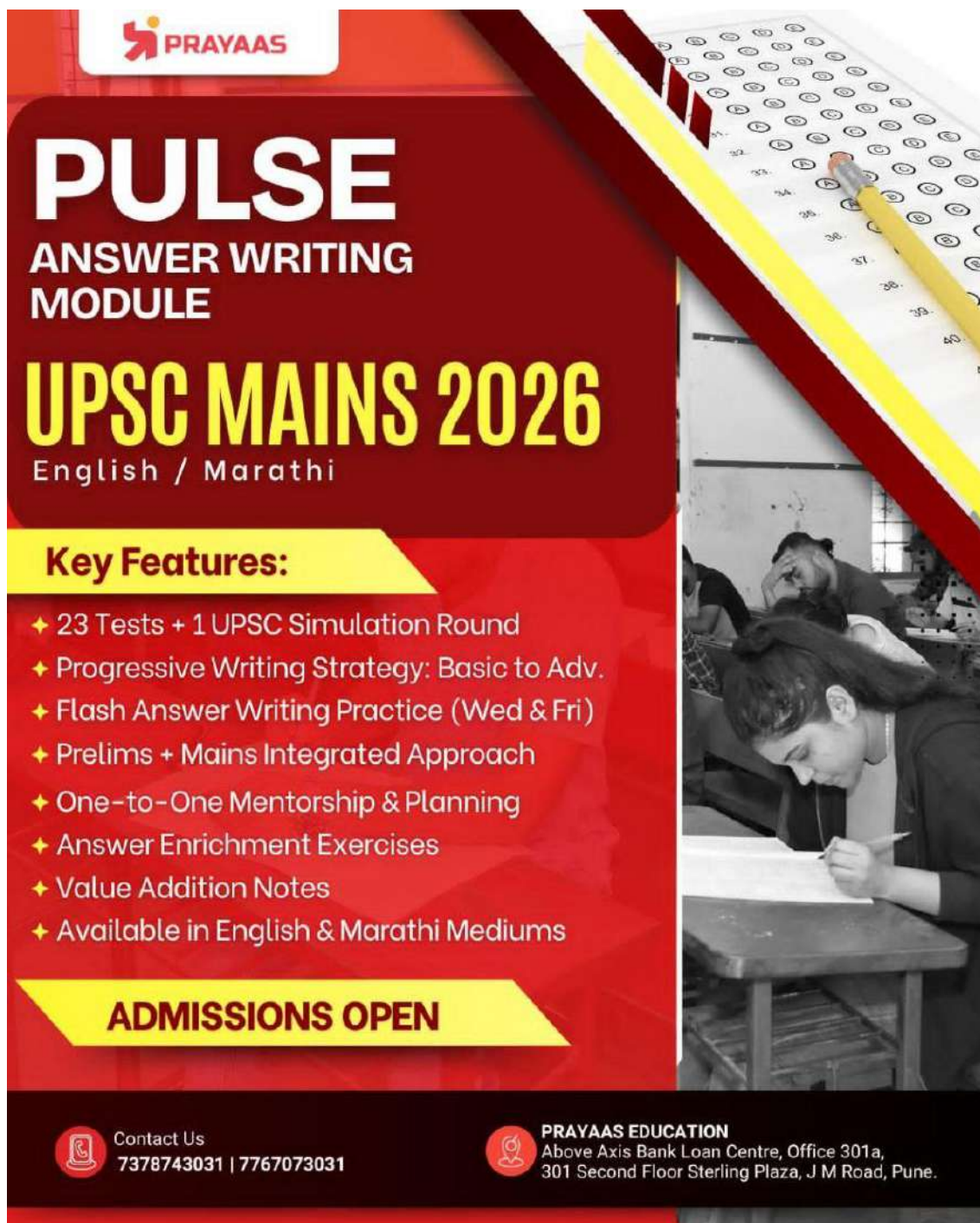
- **Leverage Geopolitical Opportunities:** Align export strategies with India's Indo-Pacific and Global South outreach to consolidate new markets amid shifting global defence procurement patterns.

Conclusion

- As PM Modi aptly stated, **"India will not just be a market for defence products, but a maker of defence power."** This is no longer a distant aspiration but a demonstrated reality with indigenous systems proving their mettle in operations like Sindoor and gaining traction in global markets. Sustained policy support, technological innovation, and strategic diplomacy can ensure that India's rise as a defence exporter is both irreversible and globally influential.

Question for Practice: -

- India's recent surge in defence exports reflects both strategic intent and industrial transformation. Discuss the factors driving this growth, the challenges that remain, and the measures needed to sustain India's position as a competitive global defence exporter. (15 Marks, 250 Words)



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PRAYAAS Shorts- UPSC & MPSC

1. Nominated members of Rajya Sabha

Context:

- On July 13, 2025, President Droupadi Murmu, exercising powers under Article 80(1)(a) and 80(3) of the Constitution, nominated four eminent individuals to the Rajya Sabha.

Constitutional Provisions for Rajya Sabha Nominations:

- Article 80(1)(a): Empowers the President to nominate 12 members to the Rajya Sabha.
- Article 80(3): Such members are selected for their special knowledge or practical experience in literature, science, art, or social service.
- Nominations are non-electoral and made by the President on the advice of the Council of Ministers.
- The provision for nominated members in Rajya Sabha is inspired by the Irish Constitution.

2. Three-day national seminar (13-15 July 2025) to mark Sushruta Jayanti

Context (PIB):

- The All-India Institute of Ayurveda (AIIA), New Delhi is hosting Shalyacon 2025, a three-day national seminar (13-15 July 2025) to mark Sushruta Jayanti (15th July).

About Sushruta and his contributions:

- Acharya Sushruta (~600 BCE): Known as the Father of Surgery; compiled the Sushruta Samhita, a key text on ancient surgical science.
- Sushruta Samhita is associated with the Atharva Veda tradition.
- It describes advanced surgical procedures like cataract removal, caesarean section, bone setting, and plastic surgery.
- Ashtavidha Shastra Karma refers to eight fundamental surgical procedures described in Ayurveda, particularly in the Sushruta Samhita.
- Ashtavidha Shastra Karma** – 8 types of surgical procedures: **Chedya** (excision), **Bhedya** (incision), **Lekhya** (scraping), **Vedhya** (puncturing), **Eshya** (probing), **Aharanya** (extracting), **Vsraya** (draining), and **Sivya** (suturing).
- Sushruta Samhita translated into Arabic (**Kitab-i-Susrud**) during the Abbasid Caliphate (8th century CE).

2.1 Other Notable personalities associated with ayurveda in Ancient India

1. Charaka

- ~800 BCE (Later Vedic period)
- Author of Charaka Samhita
- Focus: Kaya Chikitsa (Internal medicine)
- Detailed diagnosis, prognosis, treatment methods
- Elaborated Tridosha theory (Vata, Pitta, Kapha)

2. Vagbhata

- Author of **Ashtanga Hridayam** and **Ashtanga Sangraha**
- Synthesized Charaka's medicine and Sushruta's surgery
- Language: Sanskrit (Hridayam), Sanskrit + Prakrit (Sangraha)
- Presented Ayurveda in simple verses for memorization
- Helped spread Ayurveda to South-East Asia

3. Flue Gas Desulphurisation (FGD)

Context:

- The Environment Ministry has eased norms for installing Flue Gas Desulphurisation (FGD) systems in Thermal Power Plants.

About:

- A scrubbing technique using an alkaline reagent (usually sodium- or calcium-based) to remove Sulphur Dioxide (SO₂) from flue gas.
- Flue gas is a byproduct of fossil fuel combustion, containing pollutants like CO₂, SO₂, NO_x, and particulate matter.
- FGD units specifically target SO₂ emissions in flue gas.
- SO₂ is an acidic gas that is neutralised with a basic compound in the FGD unit.
- Three main types of FGD systems are used: **Dry Sorbent Injection, Wet Limestone Treatment, and Seawater Treatment.**

Sulphur Dioxide as a Pollutant

- SO₂ exposure can cause respiratory problems such as bronchitis.
- It contributes to acid rain affecting soil and water ecosystems.
- Major sources include fossil fuel burning by power plants and industrial facilities.
- Other sources include industrial metal extraction and natural emissions from volcanoes.

4. Appointment of Governor

Context:

- Recently, the President appointed Kavinder Gupta as Lieutenant Governor of Ladakh, Ashim Kumar Ghosh as Governor of Haryana, and P. Ashok Gajapathi Raju as Governor of Goa.

About:

- The Governor is appointed by the President of India under Article 155 of the Constitution.
- The appointment is made on the advice of the Union Council of Ministers, particularly the Prime Minister.
- Article 156(1): Governor holds office during the pleasure of the President.
- Tenure: Normally 5 years but can be removed earlier or transferred.
- Same person can be appointed as Governor for two or more states (Article 153).
- Provision for appointing state governors by the central government was borrowed from the Canadian Constitution

Qualifications (Article 157 & 158):

- Must be a citizen of India.
- Must have completed 35 years of age.
- Should not be a member of Parliament or State Legislature (if such, deemed resigned).
- Should not hold any office of profit.

5. One District One Product (ODOP) Scheme

Context:

- The 2nd edition of the One District One Product (ODOP) Awards was announced by the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry.

About One District One Product (ODOP) scheme

- A Central Government initiative aimed at promoting products that are unique to each district in India.
- It is under the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry.
- Objective is to boost manufacturing, market access, and exports of identified products.
- Implemented through convergence of central and state schemes.
- Products range from handicrafts, handlooms, agricultural products, processed foods, to industrial goods.

- Linked with **PM Formalisation of Micro Food Processing Enterprises (PMFME)** scheme for capacity building and credit support.
- Facilitates participation of ODOP products in national and international trade fairs.

5.1 PM Formalisation of Micro Food Processing Enterprises (PMFME) scheme

- PMFME scheme, is a centrally sponsored scheme **launched by the Ministry of Food Processing Industries (MoFPI) under the Aatmanirbhar Bharat Abhiyan.**
- Its primary goal is to enhance the competitiveness of existing individual micro-enterprises in the unorganized food processing sector in India.
- The scheme aims to achieve this by providing financial, technical, and business support for the upgradation of existing and new micro food processing units.

6. National Pharmaceutical Pricing Authority (NPPA)

Context:

- The Centre has fixed prices of 71 key drug formulations through the National Pharmaceutical Pricing Authority (NPPA).

About:

- Independent regulator under the Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers.
- Established in 1997 to implement and enforce the provisions of the Drugs (Prices Control) Order (DPCO).
- Responsible for fixing/revising prices of **scheduled drugs** and monitoring prices of **non-scheduled drugs**.
- Ensures availability of medicines at affordable prices while maintaining supply.
- Advises the government on issues related to drug pricing policy.
- Functions are in line with the Essential Commodities Act, 1955.

Scheduled vs Non-scheduled drugs

Aspect	Scheduled Drugs	Non-scheduled Drugs
Definition	Drugs listed in the Schedule-I of the Drugs (Prices	Drugs not listed in Schedule-I of the DPCO.

	Control) Order (DPCO).	
Price Control	Prices are fixed/revise d by NPPA .	Prices are not fixed by NPPA but are monitored .
Objective	To ensure essential medicines are affordable and accessible.	To prevent excessive price increase beyond permissible limits.
Price Increase Limit	As per government's set price; manufacturers cannot exceed it.	Annual increase allowed up to 10% in a 12-month period.
Examples	Life-saving drugs, essential antibiotics, anti-cancer medicines.	Most branded formulations outside essential drug list.

7. Behdeinkhlam Festival

Context:

- The sacred Behdeinkhlam Festival was celebrated in Meghalaya.

About:

- Name means "driving away the plague", symbolising spiritual cleansing and community resilience.
- Most important dance festival of the Pnars (Jaintias).
- Celebrated annually in July after the sowing season.
- Involves young men symbolically driving away evil spirits, plague, and disease by beating the roof of each house with bamboo poles.

8. RhoDIS India Programme

Context:

- A specialised team has begun genetic analysis of 2,573 **rhino** horn samples, which will be added to the RhoDIS India DNA data library.

About:

- Launched in 2016 by MoEFCC in partnership with **Wildlife Institute of India (WII)**, forest departments of Assam, West Bengal, Uttar Pradesh, and WWF India.
- RhoDIS** = Rhino DNA Index System – a wildlife forensics tool developed to investigate wildlife crime cases involving rhinos.
- Uses DNA indexing to create a unique genetic signature for each individual rhino.

8.1 Indian Rhino



- Commonly known as the Greater One-Horned Rhinoceros.
- Scientific Name: *Rhinoceros unicornis*
- Found mainly in India and Nepal.
- Habitat: Alluvial grasslands, riverine forests, and swampy areas.
- Major Indian Habitats: Kaziranga, Pobitora, Orang, Manas National Parks
- IUCN Conservation Status: Vulnerable

Other notable Rhino Species:

- White rhino – Northern and Southern Africa (Near Threatened)
- Black rhino – Eastern and Southern Africa (Critically Endangered)
- Javan rhino – also called Sunda rhino or lesser one-horned rhino (Java, Indonesia) (Critically Endangered)
- Sumatran rhino – Sumatra Island, Indonesia (Critically Endangered)

8.2 Wildlife Institute of India (WII)

- Established: 1982
- Location: Dehradun, Uttarakhand
- Type: Autonomous institution under the Ministry of Environment, Forest and Climate Change (MoEFCC).
- Primary Role: Research, training, and capacity building in wildlife conservation and management.

Functions:

- Conducts wildlife research in areas like biodiversity, endangered species, habitat ecology, and climate change.

- Provides training to forest and wildlife managers, scientists, and researchers.
- Offers advisory services to the government on wildlife policies and management strategies.
- Engages in wildlife forensics and assists in legal wildlife crime investigations.

9. Carbon Fibre

Context:

- Recently, the first 'Make in India' cost-effective advanced carbon fibre foot prosthesis, indigenously designed and developed by Defence Research and Development Laboratory (DRDL) and AIIMS-Bibinagar, was unveiled.

About:

- A strong, lightweight material made from thin strands of carbon atoms bound together in a crystalline structure.
- Typically combined with resins or polymers to form carbon fibre-reinforced composites.
- **Properties include** - High strength-to-weight ratio, High tensile strength, High stiffness and Low thermal expansion
- **Uses:** Aerospace, defence, sports equipment, automotive, medical prosthetics, wind turbine blades.
- **Advantages over metals:** Lighter yet stronger, fatigue-resistant, and adaptable to complex shapes.
- Limitations: Expensive production process, brittle nature compared to metals.

10. Cabo Delgado

Context:

- A recent study found that four proposed Liquefied Natural Gas (LNG) projects in Mozambique's Cabo Delgado region could consume at least 17% of the world's remaining carbon budget.



About:

- Province in the northernmost part of Mozambique, located along the Indian Ocean coast.
- **Capital:** Pemba.

- Rich in offshore natural gas reserves, especially in the Rovuma Basin.
- Hosts major LNG projects led by multinational companies.
- Also known for significant ruby and other mineral deposits.
- Has faced insurgency and armed conflict since 2017, involving extremist groups.
- Strategically important for Mozambique's economy due to energy export potential.
- Ecologically rich with coastal and marine biodiversity but threatened by climate change and resource exploitation.

11. Kaziranga Releases First Grassland Bird Survey Report

Context:

- Recently, Kaziranga National Park released its first Grassland Bird Survey Report, aimed at conserving grassland-dependent bird species of the Brahmaputra floodplains.

About the survey:

- Species Count: 43 grassland bird species recorded across Eastern Assam, Biswanath, and Nagaon wildlife divisions.
- The survey prioritised 10 species that are either globally threatened or endemic to the Brahmaputra floodplains.
- The prioritised species are : Bengal Florican (Critically Endangered), Swamp Francolin (Vulnerable), Finn's Weaver (Endangered), Swamp Grass Babbler (Endangered), Jerdon's Babbler (Vulnerable), Slender-billed Babbler (Vulnerable), Black-breasted Parrotbill (Vulnerable), Marsh Babbler (Vulnerable), Bristled Grassbird (Vulnerable), Indian Grassbird (Vulnerable).
- The use of **passive acoustic recording monitoring** was the highlight of the survey

11.1 Passive Acoustic Recording Monitoring (PARM) Technology

- Non-invasive method to monitor wildlife/environmental sounds.
- Uses hydrophones (underwater) or microphones (terrestrial).
- Records ambient natural sounds without emitting signals.
- Applications: marine mammal monitoring, bird/amphibian surveys, biodiversity studies, anti-poaching, habitat change tracking.
- Advantages: continuous long-term monitoring, minimal disturbance, access to remote areas.

11.2 Kaziranga National Park – Assam

- **Location** – Assam, along Brahmaputra River.
- **UNESCO World Heritage Site** – Inscribed in 1985.
- **Established** – 1905 as reserve forest; declared NP in 1974.
- **Famous For** – Largest population of Indian one-horned rhinoceros (*Rhinoceros unicornis*).
- **Other Fauna** – • Other Fauna – Tiger (Endangered) (Tiger Reserve since 2006), swamp deer (Vulnerable), wild water buffalo (Endangered), elephants (Endangered), hog deer (Least Concern).
- **Birdlife** – **Important Bird Area (IBA)** – migratory birds like pelicans, storks, herons.

12. Swachh Survekshan 2024-25 Awards



Context:

- Recently, Hon'ble President of India, Smt. Droupadi Murmu, conferred the Swachh Survekshan 2024-25 Awards at Vigyan Bhawan, New Delhi, in an event hosted by the Ministry of Housing and Urban Affairs (MoHUA).

About:

- Total Awards: 43 national awards, with special recognition for Mahakumbh.
- Following the "One City, One Award" principle, 34 cities were recognized as Promising Swachh Shehars.
- Launched Swachh City Partnership initiative – top 78 performing cities to mentor one low-performing city each.
- Announced Accelerated Dumpsite Remediation Programme (1-year, starting 15 Aug 2025) to fast-track legacy waste clearance and increase scientific waste processing capacity.

About Swachh Survekshan Awards

- Conducted as part of the Swachh Bharat Mission (Urban) since 2016.
- Ranks cities, towns, and States/UTs based on cleanliness indicators and citizen feedback.
- Evaluates solid waste management, sanitation sustainability, and public participation.



13.ADEETIE Scheme

Context:

- The Assistance in Deploying Energy Efficient Technologies in Industries & Establishments (ADEETIE) Scheme was officially launched by the Union Ministry of Power.

About:

- Flagship initiative of the **Bureau of Energy Efficiency (BEE)** under the Ministry of Power.
- Aims to promote energy-efficient technologies among MSMEs, enhancing competitiveness and contributing to India's climate goals.
- Duration: 3 years (FY 2025-26 to FY 2027-28).
- **Financial Support:** Interest subvention – 5% for Micro & Small Enterprises, 3% for Medium Enterprises on loans for adopting energy-efficient technologies.
- **Technical Support:** End-to-end assistance, including energy audits, technology identification, and monitoring of implementation.

Eligibility for availing benefits under this scheme

- Must be Udyam-registered MSMEs.
- Should belong to one of the 14 energy-intensive sectors: Brass, Bricks, Ceramics, Chemicals, Fishery, Food Processing, Forging, Foundry, Glass, Leather, Paper, Pharma, Steel Re-rolling, and Textiles.
- Entities must demonstrate a minimum of 10% energy savings from the implemented technologies.

13.1 Bureau of Energy Efficiency (BEE)

- Established – 2002 under the Energy Conservation Act, 2001.
- Nodal Ministry – Ministry of Power.
- Headquarters – New Delhi.
- It helps to develop policies & strategies for energy efficiency in India

Key Programmes under BEE

- Standards & Labelling Programme – Energy Star rating for appliances.
- Perform, Achieve and Trade (PAT) – Market-based mechanism to improve industrial energy efficiency.
- Market Transformation for Energy Efficiency (MTEE) – Promotion of energy-efficient appliances.
- State Energy Efficiency Index.

14. Prime Minister Dhan-Dhaanya Krishi Yojana (PMDDKY)

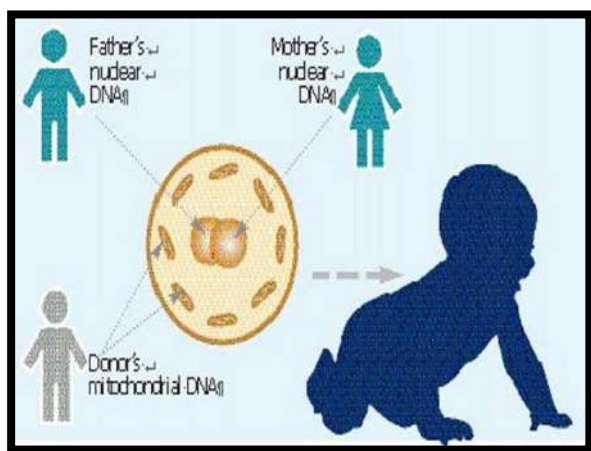
Context:

- The Cabinet has approved the Prime Minister Dhan-Dhaanya Krishi Yojana (PMDDKY).

About:

- Approved on July 16, 2025, targeting 100 low-performing Agri-districts.
- Annual outlay: ₹24,000 crore for 6 years.
- Aims to enhance productivity, promote crop diversification, improve irrigation and storage, and ensure credit access.
- Focus exclusively on agriculture and allied activities.
- Ensures saturation-based convergence of 36 schemes from 11 ministries, directly benefiting 1.7 crore farmers.
- District-level plans to be prepared by district collectors with support from agricultural universities and NITI Aayog.
- Digital dashboard, farmer app, and district ranking system to ensure transparency, access, and accountability.

15. Mitochondrial Replacement Therapy (MRT)



Context:

- A new clinical trial successfully protected eight babies at high risk of inheriting mitochondrial diseases from their mothers through mitochondrial

donation, also known as Mitochondrial Replacement Therapy (MRT).

About:

- A reproductive technology used to prevent the transmission of mitochondrial diseases from mother to child.
- Involves replacing defective mitochondria in the mother's egg with healthy mitochondria from a donor egg.
- **The resulting embryo contains:** 1. Nuclear DNA from the intended mother and father and 2. Healthy mitochondrial DNA from a donor woman.
- Often called a **"three-parent baby"** technique due to DNA contribution from three individuals.
- Goal: Prevent disorders affecting organs with high energy demand (e.g., brain, heart, muscles).

Methods used for MRT

- Maternal Spindle Transfer (MST) – replacement before fertilisation.
- Pronuclear Transfer (PNT) – replacement after fertilisation.

Mitochondrial Diseases

- **Leigh Syndrome** – severe neurological disorder.
- **MELAS** (Mitochondrial Encephalomyopathy, Lactic Acidosis, and Stroke-like episodes).
- **LHON** (Leber's Hereditary Optic Neuropathy) – vision loss.
- **MERRF** (Myoclonic Epilepsy with Ragged-Red Fibers).

16. Global Findex 2025

Context: -

- The World Bank released the **Global Findex 2025 report**, showcasing progress in digital and financial inclusion.

India-Specific Highlights: -

- Account ownership is at or near 90%.
- 16% of account owners have inactive accounts (compared to 4% average in other low- and middle-income economies).
- Share of women and men with only inactive accounts declined between 2021 and 2024.

16.1 World Bank

- Established in 1944 during the Bretton Woods Conference.
- Headquarters: Washington, D.C., USA.
- Members: 189 countries (India is a founding member).
- Comprises **International Bank for Reconstruction and Development (IBRD)** (lends to middle-income/creditworthy low-income countries) and

International Development Association (IDA)
(gives concessional loans/grants to poorest countries).

- Provides loans, grants, technical assistance, and policy advice.
- Governed by a Board of Governors and Board of Executive Directors.
- Funded through member contributions and international market borrowings.
- Publishes reports like World Development Report, Global Economic Prospects, and Global Findex.

17. Netra MkII - Next-generation Airborne Early Warning and Control System (AWACS)

Context:

- The government has approved the production of the next-generation Airborne Early Warning and Control System (AWACS) India programme, also known as Netra MkII.

About:

- Will be mounted on the Airbus A321 platform.
- Designed to detect, track, and monitor threats over vast distances.
- Functions as a flying command centre, enhancing national surveillance capabilities.
- Equipped with Active Electronically Scanned Array (AESA) radars and mission control systems.

18. Banni Grassland in Gujarat Ready for Cheetah Reintroduction

- Located on the southern edge of the Rann of Kutch, Gujarat.
- Comprises arid grassland ecosystem with seasonal wetlands.
- Home to nomadic pastoral communities like the **Maldharis**.
- Rich in wildlife – supports species such as chinkara, nilgai, desert fox, and various migratory birds.
- Known for Banni buffalo, a hardy indigenous breed.
- Faces ecological threats from **Prosopis juliflora (invasive species)**, overgrazing, and climate change.
- Plays a crucial role in livelihood security and ecological balance in arid Kutch.

19. Glass Grid Rapid Technology

Context:

- The National Highways Authority of India (NHAI) has tested Glass Grid Rapid Technology, developed by IIT Madras, on the Bengaluru–Chennai Expressway to prevent cracks.

About:

- Innovative road construction technology using glass fibre grids.
- Placed between asphalt layers to provide reinforcement and distribute load.
- Helps prevent cracks caused by thermal expansion, contraction, and heavy traffic.
- Enhances durability and lifespan of roads.
- Allows for rapid construction while maintaining strength.
- Aims to reduce maintenance costs and improve pavement performance.

20. European Free Trade Association (EFTA)

Context:

- India's Free Trade Agreement (FTA) with the four-nation European bloc, EFTA, will come into effect from 1st October, as announced by the Union Minister of Commerce and Industry.

About:

- Formed in 1960 through the Stockholm Convention as an alternative to the European Economic Community.
- Works to encourage free trade and deeper economic integration among members and globally.
- Original members included Austria, Denmark, Norway, Portugal, Sweden, Switzerland, and the UK.
- Later expansions saw Iceland join in 1970, Finland in 1986, and Liechtenstein in 1991.
- Several members left after joining the European Union — Denmark and the UK (1973), Portugal (1986), and Austria, Finland, Sweden (1995).
- Current membership: Iceland, Liechtenstein, Norway, Switzerland.

PRAYAAS Shorts- MPSC Specific

1. National News

1.1 India's second longest cable-styled bridge in Karnataka's Shivamogga

- The bridge **across the Sharavathi backwaters** between Ambaragodlu-Kalasavalli in Sagara taluk has been built at a cost of Rs 472 crore.
- This bridge will **reduce the distance from Sagara town to Sigandur** where the famous Chowdeshwari temple is situated.
- The bridge **has a 16-metre-wide deck**, which includes an 11-metre carriageway and 1.5-metre-wide footpaths on either side. The bridge between Sagara and Marakutika covers 2.44 kms

1.2 Traditional Knowledge Digital Library

- In a significant milestone for **global healthcare innovation**, the **World Health Organization (WHO)** has released a technical brief titled **"Mapping the Application of Artificial Intelligence in Traditional Medicine"**, acknowledging **India's pioneering efforts** in integrating Artificial Intelligence (AI) with traditional medicine systems, particularly Ayush systems.
- The release follows India's proposal on the subject, leading to the development of WHO's first-ever roadmap for applying AI in traditional medicine

About Traditional Knowledge Digital Library (TKDL):

- It is an **Indian initiative aimed at preserving and digitising traditional knowledge while promoting the responsible use of the country's indigenous medical heritage.**
- It uses AI-powered tools to catalogue and analyse ancient texts, making them more accessible and easier to understand.
- TKDL was **established in 2001 through a collaboration between the Council of Scientific and Industrial Research (CSIR) and the Ministry of AYUSH.**

1.3 Prime Minister Dhan-Dhaanya Krishi Yojana

- The Union Cabinet, **chaired by Prime Minister Narendra Modi**, approved the **"Prime Minister Dhan-Dhaanya Krishi Yojana"** in 2025 for a **period of six years** starting from the financial year 2025-26.
- The scheme aims to **cover 100 districts across India.**
- This scheme is **inspired by NITI Aayog's Aspirational District Programme** and is the first of its kind to focus exclusively on agriculture and allied sectors.

- The **main objectives of the scheme** are to enhance agricultural productivity, promote crop diversification, adopt sustainable agricultural practices, improve post-harvest storage infrastructure at the panchayat and block levels, expand irrigation facilities, and ensure the availability of both short-term and long-term agricultural credit.
- The 100 districts will be selected based on three main criteria: low agricultural productivity, low cropping intensity, and limited credit disbursement.
- **NITI Aayog will review and guide district plans**, while Central Nodal Officers will be assigned to each district for regular monitoring and support of the scheme's implementation.

1.4 Vice President Jagdeep Dhankhar resigns

- **Under Article 67** of the Constitution, which deals with the term of office of the Vice President, the Deputy Chairman Harivansh Narayan Singh will manage the day-to-day affairs until a new Vice President is elected.
- On the other hand, **Article 67(a) says that before the expiry of his term, the Vice President may resign by submitting his resignation to the President in writing.**
- **He is India's sixth Vice President to resign after VV Giri, R Venkataraman, Shankar Dayal Sharma, KR Narayanan, and Bhairon Singh Shekhawat.** While the first four stepped down ahead of becoming the President, Shekhawat resigned after losing the presidential election.
- Dhankhar will also go down in history as the **only vice president against whom the opposition brought a notice of removal for "partisan" conduct** as the chairman of the Upper House.

About Vice-President Jagdeep Dhankhar:

- **Birth:** Born 18 May 1951 in Kithana village, Jhunjhunu district, Rajasthan, to Gokal Chand and Kesari Devi.
- **Law Degree:** Completed LLB in 1978-79 from the University of Rajasthan; enrolled as an advocate in the Rajasthan Bar Council in November 1979.
- **Legal Career:** Designated as a Senior Advocate by Rajasthan High Court in March 1990. Practiced extensively in the Supreme Court, representing cases in steel, coal, mining and international arbitration.
- **Elected to Lok Sabha (9th) in 1989 from Jhunjhunu, Rajasthan on a Janata Dal ticket. Appointed Minister of State for Parliamentary Affairs.**

- **Contested on a Congress ticket and served as MLA** from Kishangarh in the Rajasthan Assembly (1993–98).
- Post-1998, **returned to full-time legal practice** in the Supreme Court.
- Appointed Governor of West Bengal in July 2019 by the Central Government. (2019–2022)
- Vice President of India (2022–2025)

Kisan Credit Cards (KCCs), in accordance with the provisions like the Panjabrao Deshmukh Interest Subsidy.

- Also, Gram Panchayats (GPs) will now have the power/authority to levy agricultural tax rates on livestock and poultry farms, which will further reduce the local tax burdens on farmers.
- The animal husbandry sector contributes 24% to the Gross State Domestic Product (GSDP), twice the 12% share from the agriculture sector.

2. State News

2.1 India's first Digital Nomad Village

- **Yakten**, a village in Sikkim's Pakyong district, was officially **declared India's first digital nomad village**.
- A **collaboration between** the district administration and NGO Sarvahitey under the 'Nomad Sikkim' initiative, the project aims to transform strategic locations in the Himalayan State into year-round hubs for digital professionals across India and abroad, while ensuring sustainable income opportunities for homestay owners.
- **Location:** Himalayan village in Pakyong district, East Sikkim.

2.2 India's First Ro-Ro Ferry Service

- On 14 July 2025, Goa inaugurated India's first Roll-On / Roll-Off (Ro-Ro) ferry service between Chorao Island and Ribandar across the Mandovi River.
- The two ferries named "Gangotri" and "Dwarka" were launched by Goa Chief Minister Dr. Pramod Sawant, with key state leaders like River Navigation Minister Subhash Phal Desai present.

3. Maharashtra

3.1 Tesla opens first India showroom at Mumbai's BKC

- The showroom was **inaugurated on July 15, 2025, by Maharashtra CM Devendra Fadnavis**, with Deputy CM Eknath Shinde also actively endorsing the event—Shinde even drove the vehicle into Vidhan Bhavan
- This is a big step for Elon Musk's company, as it takes its first formal step into one of the fastest-growing EV markets in the world.

About Tesla:

- Headquarters of Tesla – Austin, Texas, USA
- Tesla CEO – Elon Musk

3.2 Maharashtra becomes 1st State in India to Grant Agricultural Status to Livestock & Poultry Farming

- The livestock farmers will now receive a maximum 4% interest subsidy on project loans taken through

3.3 First campus of IICT

- Union Minister of Information & Broadcasting, Ashwini Vaishnaw, and Maharashtra Chief Minister Devendra Fadnavis jointly **inaugurated the first campus of the Indian Institute of Creative Technology (IICT) at the NFDC Complex in Mumbai on 18 July 2025**.
- IICT is **India's first national centre of excellence for the AVGC XR sector covering Animation, Visual Effects, Gaming, Comics, and Extended Reality**.

4. Award

4.1 2025 UN Population award*

- Indian women's rights activist **Varsha Deshpande** has been awarded the 2025 United Nations Population Award in the individual category, in **recognition of her decades-long work promoting gender equality and reproductive rights**.
- The announcement was **made by the United Nations in New York** on Thursday (July 10, 2025), marking the **40th edition of the prestigious global honour**.
- Deshpande **became the third Indian to win the award after former Prime Minister Indira Gandhi (1983) and industrialist philanthropist J.R.D. Tata (1992)**.

About Varsha Deshpande:

- Ms. Deshpande, **secretary of the Maharashtra-based Dalit Mahila Vikas Mandal**, was recognised for her pioneering work over more than 35 years to combat gender-based violence and discrimination, particularly gender-biased sex selection.

About UN Population Award:

- The award was **established by the United Nations General Assembly (UNGA) in 1981**, in resolution 36/201, and was 1st presented in 1983.
- Each year, the Committee for the UN Population Award **honours individuals and institutions** for contributions to reproductive health.

4.2 Kalinga Ratna Award

- The **President of India, Smt Droupadi Murmu, graced the birth anniversary celebrations of**

Adikabi Sarala Das and presented the Kalinga Ratna Award-2024 to Union Minister for Education, Shri Dharmendra Pradhan, at Cuttack, Odisha, today (July 15, 2025).

- **Organized by the Sarala Sahitya Sansad** at Jawaharlal Nehru Indoor Stadium in Cuttack.
- **Presented By:** Sarala Sahitya Sansad, a literary organization dedicated to preserving and promoting the Odia language and culture.
- **Instituted:** Around 2007, awarded annually since then.
- **Purpose:** Honors remarkable achievements by Odisha natives or those promoting Odia heritage across various sectors like education, culture, public service, and literature.

4.3 'Swachh Survekshan' awards*

- President Droupadi Murmu will present the 'Swachh Survekshan Awards 2024-25' on July 17, marking the 9th edition of the annual urban cleanliness survey.

Super Swachh League (Cities with Population >10 lakh):

- **Indore ranked 1st**, marking its eighth consecutive victory.
- **Surat secured 2nd place**, recognized for its exemplary solid waste management.
- **Navi Mumbai claimed the 3rd position.**

Swachh Shehar (Population >10 lakh):

- Ahmedabad was **declared the cleanest large city, followed by Bhopal and Lucknow.**
- Lucknow earned the third position in this category, receiving a 7-star rating for efficient waste segregation and cleanup drives.

Other National & ULB Awards:

- Dewas (50k-3 lakh population) won the Five-Star Presidential award and a "Water Plus" certificate.
- In Jharkhand, Jamshedpur (3-10 lakh) and Bundu Nagar Panchayat received top honors.
- Chhattisgarh ULBs also featured, with Bilaspur's Belha becoming the cleanest small town, and Raipur named a Promising Swachh City.

5. Defence

5.1 India joins bilateral military exercise in Australia

- India, along with 18 other nations, is **participating in Talisman Sabre 2025**, a major **bilateral military drill led by Australia.**
- **India joined the 11th edition of Exercise** Talisman Sabre, Australia's largest bilateral military exercise, for the first time, marking a key step in strengthening India-Australia defence ties in the Indo-Pacific region.

- The joint exercise, held from July 13 to August 4, 2025, is being conducted across multiple locations in Australia, with extended operations also hosted in Papua New Guinea, reflecting growing regional collaboration.

Background:

- The Exercise Talisman Sabre **began in 2005 as a biennial joint exercise between the United States of America (USA) and Australia.**
- The objective of the exercise is to enhance military interoperability between allies and partners, strengthen command and control structures and contingency response, to demonstrate commitment to regional security in the Indo-Pacific.

5.2 Akash Prime

- India, on July 16, 2025, achieved a significant milestone by successfully destroying two Aerial High Speed Unmanned targets at high-altitude in Ladakh by Akash Prime, the upgraded variant of Akash Weapon System for the Indian Army.
- The Akash Prime surface-to-air missile system at an altitude exceeding 15,000 ft in Ladakh.
- Range – 25 KM

5.3 'Prachand Shakti' Exercise

- The Indian Army's elite "Ram Division" (part of the Kharga Corps) conducted a high intensity military exercise titled "Prachand Shakti" at the **Field Firing Ranges in Meerut, Uttar Pradesh.**
- It aimed to demonstrate modern warfare capabilities, simulate deep-strike offensive operations, and integrate disruptive technologies into combat scenarios.
- This exercise aligns with the **Indian Army's declaration of 2025 as the "Year of Tech Absorption"**, promoting self-reliance in defence (Atmanirbhar Bharat).

5.4 SIMBEX exercise

- The **Indian Navy will participate** in the 32nd edition of exercise SIMBEX as part of its engagement with the Singapore Navy.
- It is one of the longest uninterrupted maritime exercises for India.
- The **Singapore India Maritime Bilateral Exercise (SIMBEX) is conducted annually** by the Indian Navy and the Republic of Singapore Navy (RSN). It will be held in Singapore later this month.
- It was **previously known as Exercise Lion King.**

6. Appointment

6.1 Senior IPS officer Sonali Mishra first woman to lead RPF

- First woman **Director General of the Railway Protection Force (RPF)**.
- The **Appointments Committee of the Cabinet has approved** Mishra's appointment as DG, RPF, until her superannuation on October 31, 2026.
- She will take charge of the post from incumbent Manoj Yadava, who is due to superannuate on July 31.

About Sonali Mishra:

- She is a **1993 batch Indian Police Service (IPS) officer** of the Madhya Pradesh cadre.
- In July 2021, **she became the first woman commander to lead a Border Security Force (BSF) formation** along the India-Pakistan border in Punjab.
- She has also **headed the BSF Intelligence Wing** in the Kashmir Valley as Inspector General (IG).
- In 2023, she took **charge as ADG of Eastern Command**, BSF, in Kolkata, West Bengal (WB).
- In 2020, Sonali Mishra was **conferred with the President's Police Medal for Distinguished Service (PPMDS)** while serving as IG, BSF Intelligence and Kashmir Frontier Commander.

PRAYAAS