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for

IAS EXAMINATION



From

9th To 14th Feb 2026

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1.1. REMOVAL PROCESS OF THE LOK SABHA SPEAKER

Context:

Recently, opposition parties in the Lok Sabha submitted a formal notice of a resolution to remove the Speaker, Shri Om Birla, from his office. This move followed days of parliamentary deadlock and was initiated after the Opposition alleged that the Speaker had acted in a partisan manner by disallowing the Leader of the Opposition from speaking and making unsubstantiated allegations against woman MPs.



1. Constitutional Provisions

- **Article 94:** This article specifies that a Speaker may be removed from office by a resolution of the House of the People (Lok Sabha) passed by a **majority of all the then members of the House**.
- **Article 96:** This article deals with the Speaker's right to participate in proceedings but prohibits them from presiding while a resolution for their removal is under consideration.

2. Procedural Requirements

The removal process is governed by both the Constitution and the **Rules of Procedure and Conduct of Business in Lok Sabha**:

- **14-Day Advance Notice:** A resolution for removal can only be moved after giving at least **14 days' notice** of the intention to move the resolution.
- **Support of 50 Members:** Under the Lok Sabha rules, the motion for leave to move the resolution must be supported by at least **50 members** before it can be listed for discussion.
- **Specific Charges:** The resolution must be specific and based on definite charges. It should not contain arguments, inferences, or defamatory statements.

3. Voting and Majority Required

- **Effective Majority:** The resolution must be passed by a majority of all the **then members** of the House. This is technically known as an **Effective Majority** (Total strength of the House minus vacancies).
- **Not Simple Majority:** It is important to note that a simple majority (majority of members present and voting) is insufficient for the removal of the Speaker.

4. Rights of the Speaker During Removal

- **Right to Speak:** The Speaker has the right to speak in and otherwise take part in the proceedings of the House while the removal resolution is being considered.
- **Right to Vote:** The Speaker can vote in the **first instance** on such a resolution.

- **No Casting Vote:** Unlike regular proceedings where the Speaker only votes to break a tie (casting vote), during a removal resolution, the Speaker **cannot exercise a casting vote** in the case of an equality of votes.
- **Restriction on Presiding:** The Speaker cannot preside over the sitting of the House while the resolution for their removal is under consideration, even if they are present in the House.

5. Summary Table: Speaker's Status During Removal Motion

Feature	Status
Presiding Power	Cannot preside over the House.
Presence in House	Can be present and participate in discussions.
First Instance Vote	Allowed (can vote as a regular member).
Casting Vote	Not allowed (cannot vote to break a tie).
Presiding Authority	Usually, the Deputy Speaker or a member from the Panel of Chairpersons.

Q. With reference to the Speaker of the Lok Sabha, consider the following statements:

1. A resolution for the removal of the Speaker requires the support of at least 100 members to be admitted in the House.
2. The resolution for removal must be passed by a majority of the total membership of the House, including vacancies.
3. While a resolution for his removal is under consideration, the Speaker can vote in the first instance but cannot exercise a casting vote.

How many of the above statements are correct?

- A) Only one
- B) Only two
- C) All three
- D) None

Correct Answer: A (Only one)

Explanation:

- **STATEMENT 1 INCORRECT:** According to the Rules of Procedure of Lok Sabha, a motion for leave to move the resolution for the removal of the Speaker requires the support of **50 members**, not 100. (While the recent news mentioned 100 signatures, the legal requirement under the rules is 50).
- **STATEMENT 2 INCORRECT:** The resolution must be passed by a majority of **all the then members** (Effective Majority), which means the total strength minus vacancies. A "majority of total membership" (Absolute Majority) does not exclude vacancies.
- **STATEMENT 3 CORRECT:** Under Article 96, the Speaker can vote in the first instance but cannot exercise a casting vote when a resolution for his removal is being considered.

1.2. BONDED LABOUR SYSTEM (ABOLITION) ACT, 1976

Context:

Recently, India observed **Bonded Labour Abolition Day, marking 50 years** of the **Bonded Labour System (Abolition) Act, 1976**. While states like West Bengal and Tamil Nadu held awareness drives, reports revealed that modern debt bondage still persists, highlighted by the rescue of a family from a brick kiln in Nadia trapped in second-generation bondage for 17 years, pointing to serious gaps in identification and rehabilitation.



About Bonded Labour System (Abolition) Act, 1976

The Bonded Labour System (Abolition) Act, 1976, was enacted to give effect to **Article 23** of the Constitution, which prohibits "begar" and other similar forms of forced labour.

1. Constitutional Basis

- **Article 23:** Explicitly prohibits traffic in human beings, *begar* (forced labour without payment), and other similar forms of forced labour.
- **Article 21:** The Supreme Court has interpreted the **right to life** to include the right to live with human dignity, which is fundamentally violated by bondage.
- **Directive Principles: Article 42** (humane conditions of work) and **Article 46** (protection of SCs/STs from exploitation) provide the guiding philosophy for this Act.

2. Key Definitions and Features

- **Bonded Labour System:** A system of forced or partly forced labour where a debtor enters into an agreement with the creditor in consideration of an advance, a customary obligation, or an obligation devolving by succession.
- **Automatic Discharge of Debt:** On the commencement of the Act, every bonded labourer stands freed and discharged from any obligation to render bonded labour, and all bonded debts are deemed extinguished.
- **Restoration of Property:** Any property of the bonded labourer taken by the creditor as security must be restored to the labourer.
- **Punishment:** The Act provides for imprisonment for a term which **may extend to three years** and a fine for anyone who compels a person to render bonded labour or advances a bonded debt.

3. Institutional Mechanism

- **Vigilance Committees:** The Act mandates the constitution of Vigilance Committees at the **District** and **Sub-Divisional** levels.

- These committees consist of the District/Sub-Divisional Magistrate, persons belonging to SC/ST, social workers, and representatives of financial institutions.
- Their role is to advise the Magistrate on implementation and provide for the economic and social rehabilitation of freed labourers.
- **Executive Powers:** The **District Magistrate (DM) is the primary authority** responsible for the identification, release, and rehabilitation of bonded labourers.

4. Rehabilitation Framework

- **Central Sector Scheme:** This scheme provides financial assistance for rehabilitation.
- **Adult Males:** Eligible for ₹1 lakh.
- **Special Categories:** Women, children, and transgenders are eligible for higher assistance (up to ₹3 lakh).
- **Release Certificate:** This document, issued by the DM, is the legal proof required for the victim to claim statutory benefits and protection from creditors.

Q. With reference to the Bonded Labour System (Abolition) Act, 1976, consider the following statements:

1. Under the Act, a bonded debt is not extinguished but is converted into a formal loan to be repaid through the Public Distribution System (PDS).
2. The District Magistrate is empowered to perform the functions of a Judicial Magistrate for the trial of offences under the Act.
3. Vigilance Committees at the District level must include representatives from the Scheduled Castes or Scheduled Tribes.

How many of the above statements are correct?

- A) Only one
- B) Only two
- C) All three
- D) None

Correct Answer: B (Only two)

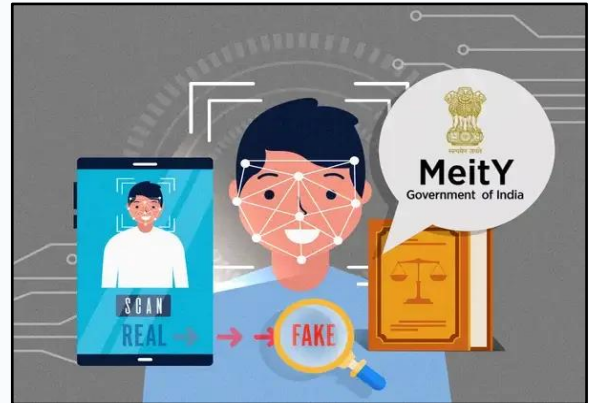
Explanation

- **STATEMENT 1 INCORRECT:** The Act explicitly states that upon its commencement, all bonded debts are **extinguished**, and no suit or other proceeding shall lie in any civil court for the recovery of such debt.
- **STATEMENT 2 CORRECT:** The Act allows the State Government to confer the powers of a Judicial Magistrate of the first or second class on a **District Magistrate** for the trial of offences under the Act.
- **STATEMENT 3 CORRECT:** The composition of the **Vigilance Committee** specifically requires the inclusion of persons belonging to Scheduled Castes or Scheduled Tribes residing in the district.

1.3. IT AMENDMENT RULES, 2026

Context:

Recently, the Ministry of Electronics and Information Technology (MeitY) notified the **IT (Intermediary Guidelines and Digital Media Ethics Code) Amendment Rules, 2026**. These rules mandate the clear labeling of **photorealistic AI-generated content** (deepfakes) to prevent the spread of synthetic misinformation and enhance digital accountability.



Key Highlights of the IT Amendment Rules, 2026

1. Definition of Synthetically Generated Information (SGI)

- **Scope:** Covers audio, visual, or audio-visual data created or modified using AI/algorithms.
- **Criterion:** Information that appears **authentic/real** to a reasonable person, making it indistinguishable from actual events or persons.

2. Mandatory Labeling & Metadata

- **Prominent Labels:** Platforms must ensure AI-generated content is clearly marked as "Synthetic" or "AI-generated."
- **Provenance:** Permanent **metadata** or digital watermarks must be embedded to track the origin and prevent the removal of identifiers.

3. Intermediary Obligations

- **User Declaration:** Platforms must provide a mechanism for users to self-disclose if their content is AI-generated.
- **Verification:** Intermediaries must use **automated tools** to detect and verify synthetic content that users fail to declare.

4. Tightened Compliance Timelines

Content Type	Previous Timeline	New 2026 Timeline
Illegal/Unlawful Content	36 Hours	3 Hours
Deepfakes/NCII	24 Hours	2 Hours
Grievance Redressal	15 Days	7 Days

5. Safe Harbour & Legal Liability

- Platforms retain **Safe Harbour** (Section 79, IT Act) only if they comply with these due diligence rules.
- Failure to label or remove content within the window leads to **loss of immunity**, making the platform legally liable for user-posted content.

6. Critical Exemptions

- **Routine Editing:** Automatic smartphone post-processing (e.g., color balance, noise reduction).

- **Accessibility:** Automated translations or search-optimization tags.
- **Good-Faith Use:** Academic research and hypothetical drafts that do not misrepresent reality.

Q. With reference to the IT Amendment Rules 2026, consider the following statements:

- I. The rules define Synthetically Generated Information (SGI) as any digital content that appears authentic but is algorithmically created.
- II. Under the new rules, intermediaries must remove illegal AI content within a 3-hour window of receiving a formal order.
- III. Automated color correction in smartphone cameras is strictly classified as SGI and requires a mandatory "AI-generated" label.

Which of the statements given above is/are correct?

- A) I and II only
- B) II and III only
- C) I only
- D) I, II, and III

Solution: A

- **STATEMENT I IS CORRECT:** SGI is legally defined as information created/modified via algorithms that a reasonable person would mistake for reality.
- **STATEMENT II IS CORRECT:** The 2026 amendment drastically reduced the takedown timeline for illegal content from 36 hours to 3 hours.
- **STATEMENT III IS INCORRECT:** Routine digital enhancements like color correction and noise reduction are specifically **exempted** from the labeling mandate.

1.4. NEW SEATS OF GOVERNANCE MEANT TO MEET PEOPLE'S ASPIRATIONS

Context:

Prime Minister Narendra Modi recently inaugurated the new Prime Minister's Office (PMO), named '**Seva Teerth**', and two buildings of the Central Secretariat, named '**Kartavya Bhavan**'.

These structures are part of the broader effort to **replace colonial-era architecture** (like the South and North Blocks) with buildings that reflect the aspirations of independent India and a "Viksit Bharat".



1. Architectural Elements (Art & Culture Focus)

The buildings incorporate traditional Indian architectural motifs, making them a significant topic for cultural heritage questions:

- **Materiality:** The structures are clad in **white and red sandstone**, referencing material traditions found in historic Indian civic and institutional architecture.
- **Stupa Influence:** The metal-clad domes are inspired by the **Buddha Stupa**, introduced as contemporary accent elements.
- **Temple Architecture (Entrance Portal):** The entrance portal draws inspiration from the **stone screen-work of Chalukyan temples** dating back to the 11th and 13th centuries.
- **Temple Architecture (Plinth):** The carved stone plinth band is inspired by the base mouldings of the **12th-century Chennakeshava Temple**.

2. Governance and Policy Milestones

On the occasion of the inauguration, several key administrative decisions and commemorative items were released:

- **PM RAHAT Scheme:** The Prime Minister signed files for this scheme, which provides **cashless treatment up to ₹1.5 lakh** for accident victims.
- **Lakhpati Didis:** The target for the Lakhpati Didi scheme (empowering women in Self-Help Groups) was doubled to **six crore**.
- **Agriculture Infrastructure Fund:** The target for this fund was doubled to **₹2 lakh crore**.
- **Commemorative Items:** A special **postage stamp and coin** were released to mark the occasion.

Key Facts About Chennakeshava Temple

Commissioned by: King **Vishnuvardhana** of the Hoysala Dynasty.

Year: Construction began in **1117 CE** to commemorate his victory over the Cholas in the Battle of Talakad.

Location: Situated on the banks of the **Yagachi River** in Belur, Hassan district, Karnataka.

Deity: Lord Vishnu (Chennakeshava literally means "Handsome Keshava").

Architectural Style: The temple is a masterpiece of the **Vesara style** (a hybrid of Nagara and Dravidian styles), characterized by:

- **Material:** Built using **Soapstone (Chloritic Schist)**, which is soft when quarried but hardens over time, allowing for extremely intricate carvings.
- **Stellate Plan:** The main shrine is built on a **star-shaped (stellate)** raised platform called a **Jagati**.
- **Shikara:** Interestingly, the original tower (Shikara) is now missing, giving the temple a flat-topped appearance today.

UNESCO Status

- In **2023**, it was declared a **UNESCO World Heritage Site** as part of the "**Sacred Ensembles of the Hoysalas**," which also includes:
 1. **Hoysaleswara Temple** (Halebidu)
 2. **Keshava Temple** (Somanathapura)

Q. With reference to Chennakeshava Temple situated near Hassan district of Karnataka State, consider the following statements:

- I. It is an Iconic monument and a world UNESCO heritage site declared in 2023, as part of the Sacred Ensembles of the Hoysalas.
- II. It is the only circular temple built in India.
- III. Its design has given rise to a popular belief that it was the inspiration behind the new Prime Minister Office 'Seva Teerth'

Which of the statements given above are correct?

- (a) I and II only
- (b) II and III only
- (c) I and III only
- (d) I, II, and III

Answer: C

Explanation:

Statement I is Correct: The Chennakeshava Temple at Belur (Hassan district) is indeed an iconic monument. In **September 2023**, the "Sacred Ensembles of the Hoysalas" (which includes the temples at Belur, Halebidu, and Somanathapura) was officially inscribed as a **UNESCO World Heritage Site**.

Statement II is Incorrect: The Chennakeshava Temple is not a circular temple; it is famous for its **stellate (star-shaped)** ground plan, a hallmark of **Hoysala architecture**. Furthermore, it is certainly not the "only" circular temple in India (others include the Chausath Yogini temples in Mitawali or Hirapur).

Statement III is Correct: According to the provided article, the new Prime Minister's Office, named '**Seva Teerth**', explicitly incorporates design elements from this temple. Specifically, the **carved stone plinth band** of the new complex is inspired by the **base mouldings of the 12th-century Chennakeshava Temple**.

INTERNATIONAL RELATIONS

2.1. INDIA-GREECE DEFENCE RELATIONS

Context:

Recently, on February 9, 2026, the Union Defence Minister of India, Rajnath Singh, held a high-level bilateral meeting with the Greek Minister of National Defence, Nikos Dendias, at the Manekshaw Centre in New Delhi.



1. Evolution of Strategic Ties

- **1998 MoU:** Bilateral defense cooperation is rooted in a Memorandum of Understanding signed in 1998, which was notably established despite international sanctions against India following the Pokhran-II nuclear tests.
- **Strategic Partnership (2023):** During PM Narendra Modi's visit to Athens in August 2023, the relationship was elevated to a **Strategic Partnership**, prioritizing security and defense.
- **Gateway to Europe:** Greece is increasingly viewed as India's primary strategic anchor in the Mediterranean and a gateway for the **India-Middle East-Europe Economic Corridor (IMEC)**.

2. Joint Military Exercises and Interoperability

- **Air Force Cooperation:**
 - **Exercise INIOCHOS:** The Indian Air Force (IAF) has become a regular participant in this multinational exercise hosted by the Hellenic Air Force at Andravida Air Base.
 - **Exercise Tarang Shakti (2024):** Greece participated in India's largest multinational air exercise with F-16 fighter jets, marking a significant upgrade in tactical synergy.

- **Naval Cooperation:**
- **Maiden Maritime Exercise (2025):** The Indian Navy (represented by **INS Trikand**) and the Hellenic Navy conducted their first bilateral exercise in the Mediterranean Sea near Salamis Naval Base.
- **Port Calls:** Regular visits of Indian warships to the **Souda Bay** in Crete, a vital NATO naval base, underscore the depth of maritime logistics cooperation.
- **Army Cooperation:**
- **Joint Services Staff Talks:** Institutionalized in early 2026 to coordinate long-term military-to-military engagement and training programs.

3. Defense-Industrial and Technology Collaboration

- **Joint Ventures:** Both nations are exploring collaboration in **drone technology, cybersecurity, and shipbuilding**.
- **Maintenance and Repair:** Discussions are underway for India to provide maintenance support for Greece's fleet, potentially leveraging the commonality in certain aerospace platforms.
- **Innovation:** The **MCP-2026** emphasizes cooperation in "Special Operations" and defense innovation hubs.

4. Strategic and Multilateral Alignment

- **Maritime Security:** Both nations advocate for a "Free and Open Indo-Pacific" and a rule-based order in the Mediterranean, adhering strictly to the **UNCLOS (United Nations Convention on the Law of the Sea)**.
- **Mutual Interests:** Greece consistently supports India on the **Kashmir issue** and its bid for a permanent seat in the **UNSC**, while India supports Greece on the **Cyprus issue**.
- **Counter-Terrorism:** Cooperation through intelligence sharing, specifically targeting transnational terror networks in the Mediterranean region.

5. Greece – Key Map Points

- Located in **Southeastern Europe** at the junction of **Europe–Asia–Africa**.
- Surrounded by **three seas**:
 - **Aegean Sea** (east)
 - **Ionian Sea** (west)
 - **Mediterranean Sea** (south)
- **Borders:**
 - **North** – Albania, North Macedonia, Bulgaria
 - **East** – Turkey
- **Important Straits:**
 - **Dardanelles** (connects Aegean Sea to Sea of Marmara)
 - **Bosporus** (connects Sea of Marmara to Black Sea)
(Together called the Turkish Straits – strategically vital)
- **Key Islands:**
 - **Crete** – largest island (southernmost)
 - **Rhodes** – near Turkey
 - **Cyclades & Dodecanese** groups (Aegean Sea)
- **Peninsulas:**

- **Peloponnese** – separated by **Corinth Canal**
- **Strategic importance:**
- Gateway between **Black Sea & Mediterranean trade routes**
- NATO & EU member

Q. With reference to the defense relations between India and Greece, consider the following statements:

1. *The first-ever bilateral maritime exercise between the Indian Navy and the Hellenic Navy was conducted in the Mediterranean Sea in 2025.*
2. *Greece is a signatory to the International Solar Alliance (ISA) and supports India's permanent membership in the UN Security Council.*
3. *'Exercise INIOCHOS' is a bilateral army exercise conducted annually between the Indian and Greek special forces.*

Which of the statements given above are correct?

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

Answer: A

Explanation:

- **STATEMENT 1 CORRECT:** *In September 2025, the Indian Navy (INS Trikand) and the Hellenic Navy successfully conducted their maiden bilateral naval exercise in the Mediterranean Sea.*
- **STATEMENT 2 CORRECT:** *Greece has ratified the ISA framework and consistently backs India's core foreign policy objectives, including UNSC reforms and the Kashmir issue.*
- **STATEMENT 3 INCORRECT:** *'Exercise INIOCHOS' is a **multinational air force exercise** hosted by Greece, not a bilateral army exercise. India participated in it with Su-30 MKI aircraft to enhance aerial combat interoperability.*

2.2. INDIA-MALAYSIA RELATIONS

Context:

Recently, Prime Minister Narendra Modi concluded a high-profile two-day official visit to Malaysia (February 7–8, 2026), marking his first foreign visit of the year. During this visit, India and Malaysia reaffirmed their **Comprehensive Strategic Partnership (CSP)**—originally elevated in August 2024—and signed 11 landmark agreements **spanning semiconductors, digital technologies, and defense.**



The visit was characterized by a "special" strategic alignment, with both nations agreeing to promote trade settlement in local currencies (**Indian Rupee and Malaysian Ringgit**) and formalizing a framework for semiconductor supply chain resilience.

1. Political and Strategic Framework

- **Comprehensive Strategic Partnership (CSP):** Elevated from a "Enhanced Strategic Partnership" in 2024, focusing on high-tech sectors and maritime security.
- **ASEAN Centrality:** Malaysia is a founding member of ASEAN and will hold the **ASEAN Chairmanship in 2025**, making it a vital partner for India's **Act East Policy**.
- **Global Platforms:** Both nations collaborate in the United Nations (UN), East Asia Summit (EAS), and the Indian Ocean Rim Association (IORA). Notably, Malaysia has expressed support for India's permanent membership in a reformed **UNSC**.

2. Economic and Trade Relations

- **Trade Volume:** Malaysia is India's **3rd largest trading partner within ASEAN**. Bilateral trade stood at approximately **\$19.86 billion** in 2024-25.
- **Trade Agreements:** Economic ties are governed by the **Malaysia-India Comprehensive Economic Cooperation Agreement (MICECA)** and the **ASEAN-India Trade in Goods Agreement (AITIGA)**, the latter currently being reviewed to reduce trade deficits.
- **Local Currency Settlement:** To reduce dependence on the US Dollar, both countries have operationalized mechanisms to settle trade in **INR and Ringgit**.
- **Palm Oil:** India remains the **world's largest importer of vegetable oils**, and Malaysia is its primary source of palm oil alongside Indonesia

3. Technology and Digital Cooperation

- **Semiconductors:** Malaysia is the world's **6th largest semiconductor exporter**. A new MoU focuses on R&D, assembly, and testing (OSAT), with major Indian firms like **Tata Electronics** exploring investment.
- **Digital Payments:** Integration between India's **UPI (via NIPL)** and Malaysia's **PayNet** was prioritized to facilitate low-cost cross-border remittances.
- **Energy:** Collaborative efforts in **Green Hydrogen** and **Green Ammonia** are being led by companies like PETRONAS and Gentari.

4. Defense and Security

- **Military Exercises:**
 - **Exercise Harimau Shakti:** A bilateral joint army exercise (5th edition held in Rajasthan, Dec 2025).
 - **Exercise Samudra Laksamana:** A bilateral naval exercise.
- **Strategic Platforms:** Cooperation via the **ADMM-Plus** (ASEAN Defence Ministers' Meeting Plus) and the co-chairing of the **Counter-Terrorism Working Group (2024-2027)**.
- **Defense Industry:** India has offered maintenance and life-extension programs for Malaysia's **Su-30 aircraft** fleet, given the commonality of the platform.

5. Cultural and Diaspora Links

- **The "Living Bridge":** Malaysia hosts the **second-largest Indian diaspora** (approx. 3 million people, largely of Tamil origin).
- **Institutional Links:** Establishment of the **Thiruvalluvar Chair** at the University of Malaya and the announcement of a new **Indian Consulate General in Sabah**.

6. Malaysia: Key Map Points

- Located in Southeast Asia, **near the Equator**.
- Divided into two parts: Peninsular Malaysia & East Malaysia (on Borneo Island), separated by the South China Sea.
- **Strait of Malacca lies on its west** → major global maritime chokepoint.
- Neighbours
- Thailand (north, land)
- Singapore (south, across strait/causeway)
- Indonesia (maritime + Borneo land border)
- Brunei (on Borneo, surrounded by Malaysia)
- Philippines (maritime, northeast)
- **Seas around:** South China Sea, Sulu Sea, Celebes Sea
- Highest peak: Mount Kinabalu (Sabah, Borneo)
- States on Borneo: Sabah & Sarawak
- **Capital: Kuala Lumpur**
- Administrative capital: Putrajaya

Q. With reference to India-Malaysia bilateral relations, consider the following statements:

- I. Malaysia is currently India's largest trading partner among all ASEAN member nations.*
- II. The two countries have agreed to establish a framework for settling bilateral trade in their respective local currencies.*
- III. 'Exercise Harimau Shakti' is a bilateral naval exercise conducted annually between the two nations.*

Which of the statements given above is/are correct?

- A) I and II only
B) II only
C) II and III only
D) I, II, and III

Solution: B

- **STATEMENT I INCORRECT:** Malaysia is India's 3rd largest trading partner in ASEAN; Singapore and Indonesia traditionally hold higher ranks in trade volume.
- **STATEMENT II CORRECT:** In 2024-2026, both nations formally agreed and operationalized mechanisms to promote trade settlement in the Indian Rupee (INR) and Malaysian Ringgit (MYR).

- **STATEMENT III INCORRECT:** 'Exercise Harimau Shakti' is a bilateral **Army/Military** exercise, not a naval exercise. The bilateral naval exercise is 'Exercise Samudra Laksamana'.

2.3. US-BANGLADESH TRADE PACT (2026)

Context:

Recently, the United States and Bangladesh have finalized a landmark **Agreement on Reciprocal Trade** on February 9, 2026. This pact follows closely on the heels of a similar Indo-US trade framework, signaling a significant shift in Washington's trade policy toward South Asia by offering Bangladesh competitive tariff advantages that directly impact India's export landscape.



Key Highlights of the US-Bangladesh Trade Pact (2026)

1. Tariff Structure and Reciprocal Rates

- **General Reduction:** The US has lowered the reciprocal tariff on Bangladeshi goods to **19%** (down from the previous 20% and the original 37%).
- **Comparison with India:** While India secured a slightly lower general rate of **18%** in its recent deal, the Bangladesh pact includes specific "carve-outs" that may offer deeper advantages in certain sectors.

2. The "Zero-Tariff" Textile Clause

- **Input-Linked Benefit:** The US will provide **zero-duty access** for a specific volume of Bangladeshi ready-made garments (RMG), provided they are manufactured using **US-produced cotton** or man-made fibers.
- **Strategic Shift:** This move is designed to incentivize Bangladesh to shift its raw material sourcing from India (traditionally its largest supplier) to the United States.

3. Market Access for US Goods

- **Agricultural Commitment:** Bangladesh has pledged to purchase approximately **\$3.5 billion** worth of US agricultural products, including wheat, soy, corn, and notably, cotton.
- **Energy Security:** The pact includes an agreement for Bangladesh to procure **\$15 billion** worth of US energy products over the next 15 years.
- **Industrial Goods:** Bangladesh will grant preferential access to US chemicals, medical devices, machinery, and automobiles, while recognizing **US FDA standards** and motor vehicle safety emissions.

4. Regulatory and Labor Reforms

- **Labor Rights:** Bangladesh has committed to an **11-point agenda** to modernize labor laws, enhance freedom of association, and prohibit forced labor, aimed at eventually regaining **GSP (Generalized System of Preferences)** benefits.

- **Digital Trade:** The agreement ensures the free transfer of data across borders and supports a moratorium on customs duties for electronic transmissions.

5. Implications for India

- **Textile Competition:** Indian exporters of garments and textiles face a "structural disadvantage" as the tariff gap between Indian and Bangladeshi goods in the US market has effectively vanished or reversed in specific categories.
- **Cotton Exports:** India, which exported nearly **\$1.6 billion** in cotton yarn to Bangladesh in 2024, may see a decline in demand as Dhaka pivots to US cotton to avail of zero-duty benefits.
- **Geopolitical Balancing:** The deal highlights Bangladesh's effort to balance its economic ties between India, China, and the US, especially following the recent cooling of India-Bangladesh bilateral relations.

Q. With reference to the US-Bangladesh Agreement on Reciprocal Trade (2026), consider the following statements:

- I. The agreement grants Bangladesh a universal zero-tariff entry for all its textile exports to the United States.
- II. Bangladesh has committed to purchasing \$15 billion worth of energy products from the US over a period of 15 years.
- III. To qualify for certain duty-free benefits under the pact, Bangladeshi manufacturers must utilize US-origin raw materials like cotton.

Which of the statements given above are correct?

- A) I and II only
- B) II and III only
- C) I and III only
- D) I, II, and III

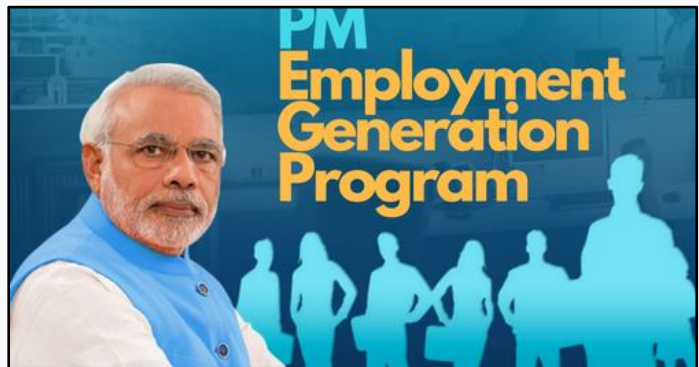
Ans. (b)

- **STATEMENT I IS INCORRECT:** The zero-tariff benefit is not universal; it is restricted to a "to-be-specified volume" (quota) and is strictly conditional upon the use of US-origin inputs.
- **STATEMENT II IS CORRECT:** The agreement explicitly includes a long-term energy procurement commitment valued at approximately \$15 billion.
- **STATEMENT III IS CORRECT:** The pact introduces a "reciprocal" mechanism where zero-duty access for garments is linked to the level of US textile inputs (cotton/fiber) used in production

3.1. PM EMPLOYMENT GENERATION PROGRAMME (PMEGP)

Context:

Recently, the RBI amended the MSME lending directions, doubling the **collateral-free loan** limit from ₹10 lakh to ₹20 lakh for Micro and Small Enterprises (MSEs). Banks have been instructed not to demand collateral for such loans and to mandatorily extend this benefit to all units financed under the Prime Minister's Employment Generation Programme (PMEGP), with the **objective** of improving **last-mile credit access** for entrepreneurs lacking tangible assets.



About PMEGP

The PMEGP is a flagship **Central Sector Scheme** aimed at generating self-employment opportunities through the establishment of micro-enterprises in the non-farm sector.

1. Origin and Administration

- **Genesis:** It was launched in **2008** by merging two erstwhile schemes: the **Prime Minister's Rojgar Yojana (PMRY)** and the **Rural Employment Generation Programme (REGP)**.
- **Nodal Ministry:** It is administered by the **Ministry of Micro, Small and Medium Enterprises (MoMSME)**.

2. Implementation Framework

- **National Level:** The **Khadi and Village Industries Commission (KVIC)** serves as the single nodal agency for implementation across the country.
- **State Level:** Implementation is carried out through State KVIC Directorates, State **Khadi and Village Industries Boards (KVIBs)**, **District Industries Centres (DICs)**, and banks.
- **Recent Update:** All implementing agencies (KVIC, KVIB, DIC) are now permitted to receive and process applications for both rural and urban areas.

3. Eligibility Criteria

- **Age:** Any individual above **18 years** of age is eligible.
- **Educational Qualification:** For projects costing above **₹10 lakh** in the manufacturing sector and above **₹5 lakh** in the business/service sector, the beneficiary **must have** passed at least **Class VIII**.
- **Income Limit:** There is **no income ceiling** for setting up projects under PMEGP.
- **Entities:** Self-help Groups (SHGs), Institutions registered under the Societies Registration Act, 1860, Production Co-operative Societies, and Charitable Trusts are also eligible.
- **New Projects Only:** Assistance is provided only for setting up **new** units; existing units **are not eligible** for the first loan.

4. Financial Assistance and Subsidy (Margin Money)

The scheme is a **credit-linked subsidy** program. The government provides "Margin Money" (subsidy) which is routed through banks.

Category of Beneficiary	Beneficiary Contribution	Subsidy (Urban)	Subsidy (Rural)
General Category	10%	15%	25%
Special Category*	05%	25%	35%

Special Category Includes: SC/ST, OBC, Minorities, Women, Ex-servicemen, Differently-abled, NER (North Eastern Region), Hilly and Border areas.

5. Maximum Project Cost

- **Manufacturing Sector:** Up to ₹50 lakh.
- **Service Sector:** Up to ₹20 lakh.
- **Upgradation (2nd Loan):** For well-performing existing PMEGP/MUDRA units, a second loan of up to ₹1 crore (Manufacturing) and ₹25 lakh (Service) is available with a 15% subsidy (20% for NER/Hilly areas).

Q. With reference to the Prime Minister's Employment Generation Programme (PMEGP), consider the following statements:

1. It is a Centrally Sponsored Scheme implemented by the Ministry of Rural Development.
2. Under this scheme, there is no income ceiling for beneficiaries to set up new micro-enterprises.
3. For special category beneficiaries in rural areas, the government provides a margin money subsidy of 35% of the project cost.

How many of the above statements are correct?

- A) Only one
- B) Only two
- C) All three
- D) None

Correct Answer: B (Only two)

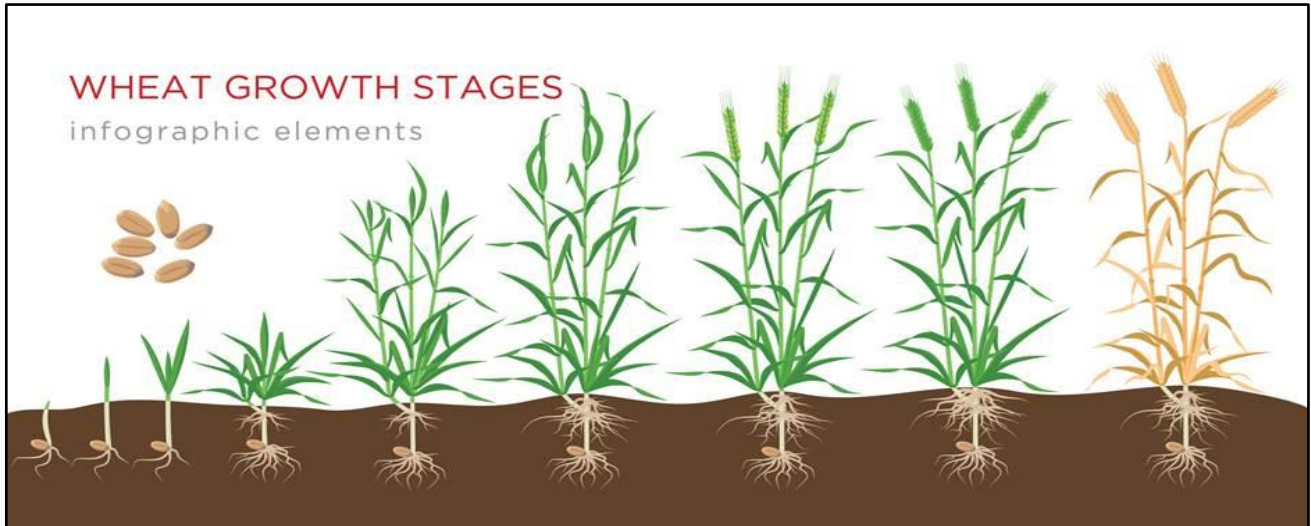
Explanation:

- **STATEMENT 1 INCORRECT:** PMEGP is a **Central Sector Scheme** (not Centrally Sponsored) and is administered by the **Ministry of Micro, Small and Medium Enterprises (MSME)**, not the Ministry of Rural Development.
- **STATEMENT 2 CORRECT:** There is **no income ceiling** for assistance in setting up projects under the PMEGP guidelines.
- **STATEMENT 3 CORRECT:** Special category beneficiaries (SC/ST, Women, etc.) are entitled to a **35% subsidy** in rural areas and a 25% subsidy in urban areas.

3.2. WHEAT: FROM SOIL REQUIREMENTS TO INDIA'S EXPORT STRATEGY

Context:

Recently, the Government of India announced a significant policy shift by approving the export of **25 lakh tonnes of wheat** and 5 lakh tonnes of wheat products for the early 2026 season. This decision, stems from a projected record harvest and robust central stocks of **182 LMT**, which far exceed the mandatory buffer requirements. The move marks the end of a long-standing export restriction and aims to help Indian farmers tap into global demand while stabilizing local wholesale prices.



1. Wheat Cultivation in India: Climate and Soil Requirements

- **Crop Category:** Wheat is the **second most important cereal crop** in India, following rice, and is the staple food for most of North and West India.
- **Season:** It is primarily a **Rabi crop**, sown in winter (October–December) and harvested in spring (February–May).
- **Ideal Temperature:** It requires a cool growing season (**10°C to 15°C** at sowing) and a warm, sunny ripening period (**21°C to 26°C** at harvest).
- **Rainfall Patterns:** The crop thrives with **50-75 cm** of annual rainfall. Winter drizzles caused by **Western Disturbances** are particularly beneficial for higher yields.
- **Soil Suitability:** Well-drained, fertile **loams and clayey loams** are preferred. The alluvial soils of the Indo-Gangetic plains and the black soils of the Deccan are primary cultivation zones.

2. India's Position as a Global Producer and Exporter

- **Production Ranking:** India is the **world's second-largest producer** of wheat, contributing nearly **14% of the total global output**, second only to **China**.
- **Top Producers Globally:** The top five producers are China, India, Russia, the United States, and France.
- **Export Dimension:** Although India is a top producer, it is often a "swing" exporter due to its massive domestic consumption requirements.
- **Global Export Leaders:** **Russia** remains the world's largest wheat exporter. India's re-entry into the market in 2026 targets key deficit regions in **West Asia, Southeast Asia (Indonesia, Philippines), and North Africa (Egypt)**.

3. Key Government Policies and Economic Support

- **MSP for 2026-27:** The government fixed the Minimum Support Price (MSP) for wheat at **₹2,585 per quintal**.
- **Farmer Profits:** This price ensures a return of **109%** over the estimated cost of production, providing the highest profit margin among all Rabi crops.
- **Stock Management:** The Food Corporation of India (FCI) manages the "Central Pool" to supply grains for the **National Food Security Act (NFSA)** and the **PM-GKAY** scheme.

4. Challenges: Climate Change and Biosecurity

- **Terminal Heat Stress:** Rising temperatures in March (during the grain-filling stage) are a major threat, potentially reducing yields by **6-25%** by 2100.
- **Wheat Blast:** This fungal disease (*Magnaporthe oryzae*) is an emerging threat to South Asian food security, causing sudden bleaching of the wheat heads.
- **Climate-Resilient Varieties:** Researchers have developed varieties like **HD-3385** (early sowing/heat tolerant) and **PBW RS1** (high amylose for health benefits) to combat these challenges.

1. Consider the following statements regarding the wheat sector in India:

1. India is currently the world's largest exporter of wheat, mainly supplying markets in North Africa and the Middle East.
2. The 'Wheat Blast' disease is caused by a fungal pathogen that primarily affects the grain-bearing head of the plant.
3. The Minimum Support Price (MSP) for wheat in the 2026-27 season provides a return of over 100% on the cost of production.

Which of the statements given above are correct?

- A. 1 and 2 only
- B. 2 and 3 only
- C. 1 and 3 only
- D. 1, 2, and 3

Answer (b)

Solution:

- **STATEMENT 1 INCORRECT:** While India is the second-largest **producer**, it is not the largest **exporter**; Russia currently holds that position. India's exports are carefully regulated based on domestic needs.
- **STATEMENT 2 CORRECT:** Wheat Blast is a devastating fungal disease (*Magnaporthe oryzae*) that attacks the "spikes" or heads of the wheat, leading to empty or shriveled grains.
- **STATEMENT 3 CORRECT:** The approved MSP of ₹2,585 per quintal for the 2026-27 season represents a margin of 109% over the cost of production.

3.3. LEAD BANK SCHEME

Context:

Recently, the Reserve Bank of India (RBI) released a comprehensive draft circular to overhaul the **Lead Bank Scheme (LBS)** to align it with the National Strategy for Financial Inclusion 2025–30.



1. Genesis and Evolution of Lead Bank Scheme

- **Introduction:** The Lead Bank Scheme was introduced by the Reserve Bank of India in **December 1969**.
- **Aim:** To coordinate banks and development agencies to increase bank credit flow to priority sectors and strengthen banks' role in rural development.
- **Gadgil Study Group (1969):** It recommended the "**Area Approach**" to evolve coordinated plans for banking and credit structure in rural areas.
- **Nariman Committee (1969):** A Committee of Bankers headed by **F.K.F. Nariman** endorsed this approach, suggesting that each district be allotted to a specific "Lead Bank" to act as a pace-setter.
- **Usha Thorat Committee (2009):** This panel recommended the revitalization of the scheme to focus on **100% financial inclusion** and strengthen the role of the Lead District Manager.

2. Core Mechanism: The Area Approach

- **District as a Unit:** Under the scheme, a district is the primary unit for planning and coordination of banking activities.
- **Consortium Leader:** One commercial bank (Public or Private) is designated as the **Lead Bank** for a specific district.
- **Non-Monopoly Role:** The Lead Bank does not have a monopoly over banking business in the district; rather, it acts as a **coordinator** for all financial institutions (Commercial Banks, RRBs, Co-operatives) and government agencies.

3. Institutional Architecture

The scheme operates through a hierarchy of committees to ensure coordination between banks and the government:

Level	Committee	Chairperson	Frequency
State Level	State Level Bankers' Committee (SLBC)	CMD/Executive Director of Convenor Bank	Quarterly
District Level	District Consultative Committee (DCC)	District Collector	Quarterly
District Level	District Level Review Committee (DLRC)	District Collector (includes MPs/MLAs)	Half-yearly
Block Level	Block Level Bankers' Committee (BLBC)	Lead District Manager (LDM)	Quarterly

Key Functionary: Lead District Manager (LDM)

- The Lead Bank appoints a senior officer as the **LDM** to oversee the implementation of the **District Credit Plan (DCP)**.
- The LDM acts as a liaison between the banking sector and the district administration to resolve operational bottlenecks.

4. Key Concepts for Prelims

- **Service Area Approach (SAA):** Introduced in 1989 as a part of LBS, it assigned a group of villages to a specific bank branch to ensure planned credit deployment.
- **District Credit Plan (DCP):** It is an annual plan prepared by the Lead Bank indicating the sector-wise and block-wise credit targets for the district.
- **Credit-Deposit (CD) Ratio:** It measures the credit disbursed by banks in a region relative to the deposits mobilized there. RBI monitors this to ensure that rural deposits are reinvested locally rather than being diverted to metropolitan areas.

Q. With reference to the Lead Bank Scheme (LBS) in India, consider the following statements:

- The scheme was introduced in 1969 based on the recommendations of the Narasimham Committee on Banking Sector Reforms.*
- The Lead Bank of a district enjoys exclusive rights to conduct government banking business and provide credit within that specific district.*
- The State Level Bankers' Committee (SLBC) is an inter-institutional forum chaired by the Governor of the Reserve Bank of India.*
- As per the recent 2026 draft guidelines, banks are required to maintain a minimum Credit-Deposit (CD) ratio of 60% for their rural and semi-urban branches.*

Which of the statements given above is/are correct?

- I and III only*
- IV only*
- II and IV only*
- I, II, and IV only*

Solution: B

- **STATEMENT I INCORRECT:** The Lead Bank Scheme was based on the recommendations of the **Gadgil Study Group** and the **Nariman Committee**, not the Narasimham Committee (which came later in 1991/1998).
- **STATEMENT II INCORRECT:** The Lead Bank does **not have a monopoly** or exclusive rights. It only acts as a coordinator or consortium leader for all banks in the district.
- **STATEMENT III INCORRECT:** The SLBC is chaired by the **Chairman/Managing Director/Executive Director of the Convenor Bank** of that state, not the RBI Governor.
- **STATEMENT IV CORRECT:** The 2026 RBI draft guidelines explicitly mandate a **60% CD ratio** for rural and semi-urban branches to ensure adequate local credit deployment.

4.1. THWAITES GLACIER

Context:

Recently, a major international scientific expedition led by the **British Antarctic Survey (BAS)** and South Korean researchers commenced a high-stakes drilling mission on the **Thwaites Glacier** to investigate its rapid melting from beneath.

1. Geographical Profile

- **Location:** It is an unusually broad and vast glacier located in **West Antarctica**.
- **Drainage:** It flows into **Pine Island Bay**, which is part of the **Amundsen Sea**.
- **Size:** The glacier is approximately **120 km wide** (the widest in the world) and covers an area of **1.9 lakh sq km**, roughly the size of Great Britain or the state of Florida.
- **Basin:** It is a key component of the **West Antarctic Ice Sheet (WAIS)**, acting as a "cork" that prevents interior ice from flowing rapidly into the ocean.



2. Why the "Doomsday" Label?

- **Sea Level Contribution:** Currently, Thwaites contributes about **4%** to the annual global sea-level rise.
- **Potential Rise:** If the glacier collapses entirely, it contains enough ice to raise global sea levels by approximately **65 cm (over 2 feet)**.
- **Chain Reaction:** Its collapse could destabilize neighboring glaciers (like Pine Island Glacier), potentially leading to a total sea-level rise of up to **3 meters (10 feet)**, which would submerge major coastal cities like Mumbai, New York, and Shanghai.

3. International Collaboration

- **ITGC:** The **International Thwaites Glacier Collaboration** is a multi-year, multi-million dollar joint project between the US (National Science Foundation) and the UK (Natural Environment Research Council) to study the glacier's fate.

Q. With reference to the Thwaites Glacier, often mentioned in the news, consider the following statements:

1. *It is the widest glacier in the world and is located in the East Antarctic region.*

- II. The "grounding line" of the glacier refers to the point where the ice starts floating over the ocean instead of resting on the seabed.
- III. The melting of this glacier is primarily driven by "warm water infiltration" beneath its ice shelf rather than just atmospheric warming.

Which of the statements given above are correct?

- A) I and II only
B) II and III only
C) I and III only
D) I, II, and III

Correct Answer: B

Explanation:

- **STATEMENT I INCORRECT:** While it is the widest glacier in the world, it is located in **West Antarctica**, not East Antarctica.
- **STATEMENT II CORRECT:** The grounding line is the critical junction where the glacier transitions from resting on the bedrock to becoming a floating ice shelf. Its retreat is a primary indicator of glacial instability.
- **STATEMENT III CORRECT:** Recent scientific findings emphasize that relatively warm ocean water (Circumpolar Deep Water) reaching the base of the glacier is the dominant cause of its rapid thinning and retreat.

4.2. NRI INVESTMENT REFORMS (BUDGET 2026-27)

Context:

Recently, the Union Budget 2026–27 announced a significant liberalization of investment norms for Non-Resident Indians (NRIs) and Persons Resident Outside India (PROIs), yet data from the National Stock Exchange (NSE) reveals a stark contrast in actual participation.

While the finance minister doubled the individual NRI investment limit to **10%** and the aggregate cap to **24%** to "ease doing business," reports highlight that NRIs currently hold a mere **0.62%** of the total equity in NSE-listed firms.



Key Highlights: NRI Investment Reforms (Budget 2026-27)

1. New Investment Thresholds

The government has substantially increased the "headroom" for the diaspora to participate in India Inc. through the Portfolio Investment Scheme (PIS):

- **Individual Limit:** Raised from **5% to 10%** of the total paid-up equity capital of a listed Indian company.

- **Aggregate Limit:** The total share that all NRIs/PROIs combined can hold in a single company has jumped from **10% to 24%**.
- **Approval Mechanism:** These increases are now permitted without the prior approval of the Reserve Bank of India (RBI), aiming to reduce bureaucratic friction.

2. The 0.6% Paradox

Despite these expansive limits, current data paints a picture of under-utilization:

- **Ownership Stagnation:** NRIs hold only **0.62%** of the shares of NSE-listed companies as of Q3 FY 2025–26.
- **Historical Trend:** This figure has remained below 1% for the past three fiscal years, fluctuating between 0.57% and 0.64% regardless of market performance.
- **Nifty 50 Absence:** None of the top 50 representative companies of corporate India (Nifty 50) are among the firms with the highest NRI shareholding.

3. FPI vs. NRI: Regulatory Distinction

- **FPI (Foreign Portfolio Investment):** Institutional entities (mutual funds, etc.) or individuals registered with SEBI. NRIs are generally **not** allowed to register as FPIs but can be part of an FPI "investor group" with specific caps (less than 25% individual or 50% aggregate contribution to the corpus).
- **NRI Route (PIS):** A direct route for non-resident individuals to buy/sell shares on stock exchanges through a designated bank branch.

4. Other Diaspora-Friendly Measures

- **Property Transactions:** Resident buyers purchasing property from NRIs no longer need a **TAN** (Tax Deduction Account Number); the buyer **PAN** is now sufficient for TDS compliance.
- **TCS Rationalization:** Tax Collected at Source (TCS) for overseas education and medical remittances has been slashed to **2%** (from 5%).
- **Foreign Asset Disclosure:** A one-time, six-month window was announced to allow NRIs and professionals to regularize undisclosed foreign assets with immunity from prosecution.

Q. With reference to the Union Budget 2026–27 and NRI investment regulations in India, consider the following statements:

- The individual investment limit for a Non-Resident Indian (NRI) in a listed company has been doubled to 10%.*
- NRIs are classified as Foreign Portfolio Investors (FPIs) under the latest SEBI guidelines to simplify market entry.*
- For the sale of immovable property by an NRI, the resident buyer is now required to obtain a Tax Deduction Account Number (TAN) to deposit TDS.*

Which of the statements given above is/are correct?

- I only*
- I and II only*
- II and III only*
- I, II, and III*

Correct Answer: A

Explanation

- **STATEMENT I IS CORRECT:** The Union Budget 2026–27 officially hiked the individual NRI/PROF limit from 5% to 10%.
- **STATEMENT II IS INCORRECT:** NRIs do not come under the FPI category; they invest via the Portfolio Investment Scheme (PIS) regulated under FEMA. While they can contribute to an FPI fund, they cannot be registered as an FPI individual.
- **STATEMENT III IS INCORRECT:** The Budget 2026 **removed** the TAN requirement for resident buyers, allowing them to use their PAN for simpler compliance when buying from NRIs.

4.3. THE LOOMING CRISIS OF INVASIVE ALIEN PLANTS

Context:

- **Recently**, environmental scientists have sounded an alarm on a burgeoning **ecological crisis**: as the Arctic warms at nearly four times the global average—a phenomenon known as **Arctic Amplification**—it is becoming increasingly hospitable to **invasive plant species**.



Key Concepts

1. Arctic Amplification & The "Thermal Niche"

- **Definition:** The phenomenon where the Arctic warms at a significantly faster rate than the global average due to the **Albedo-Feedback Loop** (melting white ice exposes dark ocean/land, which absorbs more heat).
- **Thermal Niche Expansion:** Warmer temperatures allow temperate species (e.g., *Cow Parsnip*, *Sticky Ragwort*) to survive and reproduce in areas previously too hostile for their seeds to germinate.

2. Pathways of Invasion (The Human Vector)

- **Shipping:** The melting of sea ice has opened the **Northern Sea Route (NSR)** and the **Northwest Passage**. Ballast water and hull fouling are primary vectors for marine and coastal invasive species.
- **Tourism & Research:** Seeds "hitchhike" on the clothing, hiking boots, and equipment of visitors to Arctic "hotspots" like **Svalbard** (Norway) and **Western Alaska**.
- **Construction:** Infrastructure development for oil and gas extraction often uses imported soil or equipment contaminated with non-native seeds.

3. "Sleeper Species" Phenomenon

- These are alien species that have been present in the Arctic for years in small, dormant populations.

- **The Trigger:** Once a specific temperature threshold is crossed, these species "wake up," exhibiting rapid, aggressive growth that outcompetes native flora.

4. Ecological Feedbacks: The Invasive-Fire-Permafrost Link

- **Altered Fire Regimes:** Invasive grasses (e.g., *Smooth Brome*) create a more continuous and flammable fuel load than native tundra plants.
- **Permafrost Impact:** Frequent wildfires strip away the insulating organic layer of the soil. This exposes the **permafrost**, accelerating its thaw and releasing stored **Methane** and **Carbon Dioxide**.

International Governance & Frameworks

- **ARIAS (Arctic Invasive Alien Species) Strategy:** A specialized action plan by the **Arctic Council** (Working Groups: CAFF & PAME) to prevent, detect, and respond to biological invasions.
- **Kunming-Montreal Global Biodiversity Framework (Target 6):** Aims to reduce the rate of introduction and establishment of invasive alien species by at least **50% by 2030**.
- **India's Role:** As an **Observer** in the Arctic Council, India's **Arctic Policy (2022)** emphasizes "Environmental Protection" and monitoring climate-induced biological changes that impact global weather (including the Indian Monsoon).

Q. With reference to the "Arctic Amplification" and its ecological impacts, consider the following statements:

1. Arctic Amplification is primarily driven by the reduction of the planetary albedo effect due to melting sea ice.
2. "Sleeper species" refer to native Arctic plants that undergo deep dormancy during extreme warming events to prevent moisture loss.
3. The presence of certain invasive grasses in the Arctic can accelerate the thawing of permafrost by increasing the frequency of tundra wildfires.
4. India is a permanent member of the Arctic Council and has a veto power on environmental policies in the region.

Which of the statements given above are correct?

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

Answer: C

Solution:

- **STATEMENT 1 CORRECT:** Arctic Amplification is a feedback process where the loss of reflective ice (high albedo) exposes dark water/land (low albedo), leading to increased heat absorption and faster warming.

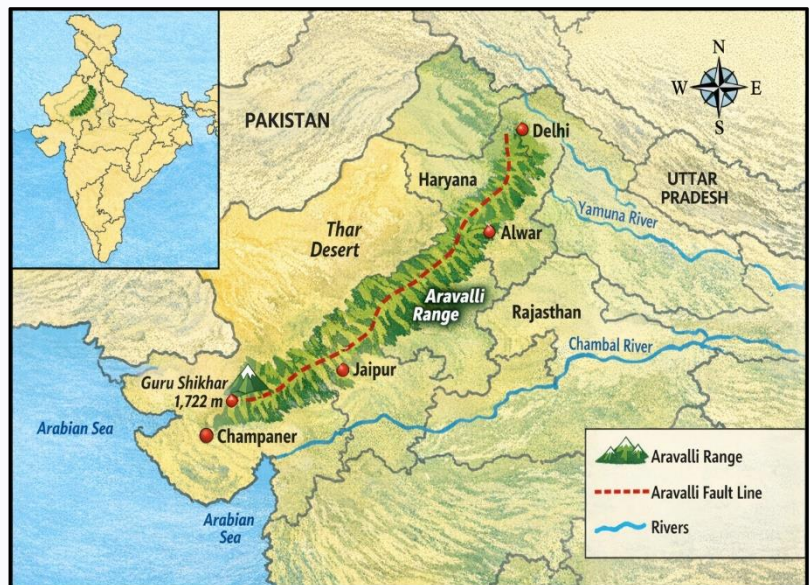
- **STATEMENT 2 INCORRECT:** "Sleeper species" are **non-native/alien** species that remain at low, non-invasive levels until triggered by environmental changes like warming. They are not native plants.
- **STATEMENT 3 CORRECT:** Invasive plants can change the "fuel load" of the tundra. More flammable invasive grasses lead to fires that destroy the soil's insulation, causing the permafrost below to melt faster.
- **STATEMENT 4 INCORRECT:** India is an **Observer**, not a member. Only the 8 countries with territory in the Arctic Circle are members. Observers do not have voting or veto rights.

4.4. SUPREME COURT HALTS ARAVALLI SAFARI PROJECT

Context:

The Supreme Court of India has refused to allow the Haryana government to proceed with its proposed Aravalli **jungle safari project** until experts **clearly define** the official boundary ("range") of the Aravalli hills.

This safari project aims to set up big cat zones and house hundreds of species of birds, reptiles and butterflies in an area of 10,000 acres in the eco-fragile Aravali range in Gurugram and Nuh districts.



Ongoing Debate

- The Supreme Court of India (Nov–Dec 2025) reviewed a **committee led by Ministry of Environment, Forest and Climate Change** to frame a **uniform definition** of the Aravalli range for mining regulation, stressing its role in preventing desertification, recharging groundwater, and conserving biodiversity.
- **Aravalli Hills Definition:** Any landform rising **100 metres** or more above the surrounding local terrain.
- **Aravalli Ranges Definition:** Clusters of two or more such hills located **within 500 metres** of each other.

What are the Criticisms Regarding the New Definition of Aravalli Hills?

- **Major Exclusion:** A 100-m threshold may exclude over 90% of the Aravalli landscape, raising ecological concerns.
- **Mining Risk:** Unprotected areas could face mining, construction, and urban expansion.
- **Ecological Break:** Peak-centric definition ignores foothills, valleys, and ridges.

- **Water Threat:** Damage to slopes may reduce groundwater recharge.
- **Desertification Risk:** Weakening the barrier could accelerate Thar Desert spread, affecting India's commitments under the UN Convention to Combat Desertification.

About the Aravalli Hills:

- The Aravalli Hills and Ranges are among **India's oldest geological formations**, stretching from Delhi through Haryana, Rajasthan, and into Gujarat.
- **Type:** An ancient **fold mountain chain**, now worn down into residual hills (300–900 m).
- **Highest Peak:** Guru Shikhar (1,722 m) on **Mount Abu**.
- **Hydrological Role:** The Aravalli range, located in a semi-arid region (500–700 mm rainfall), acts as a major watershed separating **the Ganga–Indus drainage divide** and river systems flowing toward the Bay of Bengal and the Arabian Sea.

Significance of the Aravalli Range

- **River Source:** Several rivers originate in the Aravallis, including **Luni, Banas, Sahibi and Sabarmati**.
- **Barrier Against Desertification:** Acts as a natural wall preventing the eastward spread of the Thar Desert.
 - **Aravalli Green Wall Initiative:** A project to develop a 1,400 km long, 5 km wide green buffer across 29 districts in Gujarat, Rajasthan, Haryana, and Delhi to curb desertification, reduce land degradation, and prevent the eastward spread of the Thar Desert.
- **Aquifer Recharge:** Fractured and weathered Aravalli rocks allow rainwater percolation, enabling recharge of underground aquifers.
- **Mineral Resources:** Rich in marble, granite, copper, zinc, and lead ores.
- **Cultural and Heritage Significance:** The Aravalli range houses **UNESCO World Heritage Sites** like **Chittorgarh and Kumbhalgarh forts**.

Q. Consider the following statements:

- I. Aravalli hills are spread over five States only.
- II. Several rivers originate in the Aravallis, including Luni, Banas, Sahibi and Sabarmati.

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

Answer: B

Explanation:

Statement I is Incorrect: The Aravalli Range **does not spread over five states**. It spans approximately 670 km (430 miles) across three states and one Union Territory: (Gujarata, Rajasthan, Haryana and Delhi).

Statement II is Correct. The Aravallis act as a major watershed. Several significant rivers originate from these hills:

- **Luni:** Originates near Ajmer and flows towards the Rann of Kutch. It is notable for being an endorheic river (does not reach the ocean).
- **Banas:** A tributary of the Chambal River, it originates in the Khamnor Hills of the Aravalli Range.
- **Sahibi:** An ephemeral river flowing through Rajasthan and Haryana.
- **Sabarmati:** Originates in the Udaipur district of the Aravallis and flows into the Gulf of Khambhat.

4.5. DECODING THE NEW CPI SERIES: FROM 2012 TO 2024

Context:

Recently, the Ministry of Statistics and Programme Implementation (MoSPI) released the first set of retail inflation data under the **new Consumer Price Index (CPI) series with 2024 as the base year.**

This major statistical overhaul, replaces the decade-old 2012 series to better reflect contemporary Indian consumption patterns, characterized by increased spending on services, digital products, and a relative decline in the share of food expenditure.



New CPI Series (Base 2024)

1. Shift in Base Year and Data Source

- **New Base Year:** The base year has been officially shifted from **2012 to 2024.**
- **Primary Data Source:** The weights for the new series are derived from the **Household Consumption Expenditure Survey (HCES) 2023-24.**

2. Adoption of International Framework (COICOP 2018)

- The new series moves away from the older structure of 6 broad groups to **12 Divisions** based on the UN's **Classification of Individual Consumption According to Purpose (COICOP) 2018.**
- This alignment enhances the **global comparability** of India's inflation data.

3. Changes in the Consumption Basket

- **Expansion of Items:** The total number of items in the basket has increased from **299 to 358.**
- **New Additions:** Reflecting a modern lifestyle, the series now includes **Rural House Rent, Online Streaming Services, Babysitters, Exercise Equipment, Pen-drives, and Value-added Dairy Products.**
- **Exclusions:** Obsolete items like **VCR/VCD players, Radios, Tape recorders, and CDs/DVDs** have been removed.

4. Significant Weightage Revisions

The most critical change for economic policy is the redistribution of weights:

Category	Old Weight (2012 Base)	New Weight (2024 Base)
Food and Beverages	~45.86%	~36.75%
Housing & Utilities	~10.07%	~17.67%
Transport & Comm.	~8.59%	~12.41%

Note: The sharp reduction in food weight is expected to reduce the volatility of headline inflation, as food prices are highly seasonal and prone to supply shocks.

Q. With reference to the recently introduced New Consumer Price Index (CPI) series (Base 2024), consider the following statements:

1. The weightage of 'Food and Beverages' in the combined CPI basket has been increased to reflect rising food inflation.
2. The new series adopts the COICOP 2018 framework, increasing the number of classification divisions from six to twelve.
3. For the first time, the index includes a component for rural house rent.

Which of the statements given above are correct?

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

Correct Answer: (b)

Explanation:

- **STATEMENT 1 IS INCORRECT:** The weightage of 'Food and Beverages' has actually **decreased** from approximately 45.86% to 36.75% because, as per the HCES 2023-24, Indians are spending a smaller proportion of their income on food compared to 2012.
- **STATEMENT 2 IS CORRECT:** The new series aligns with the UN's **COICOP 2018** (Classification of Individual Consumption According to Purpose), expanding the structure to **12 divisions** for better granularity and global standards.
- **STATEMENT 3 IS CORRECT:** The 2024 series has introduced **rural house rent** to fill the data gap and reflect the changing consumption patterns in rural India.

5.1. INDIA'S ASTRONOMY & SPACE RESEARCH ECOSYSTEM

Context: Union Budget 2026–27 has earmarked ₹13,416.20 crore for the Department of Space, with a major thrust on deep-space exploration, astrophysics and large telescope infrastructure. This marks a strategic shift towards strengthening India's frontier science capacity and reducing dependence on foreign observatories.



1. Key Budget Announcements & Infrastructure

Initiative	Location	Significance
30-m National Large Optical-Infrared Telescope (NLOT)	India (site under development)	Will place India among global leaders in optical astronomy
National Large Solar Telescope (NLST)	Near Pangong Lake, Ladakh	High-resolution solar studies, space weather monitoring
Himalayan Chandra Telescope (HCT)	Hanle, Ladakh	Control system upgrades
COSMOS-2 Planetarium	Amaravati, Andhra Pradesh	Public science outreach
Giant Metrewave Radio Telescope (GMRT)	Near Pune	World's largest low-frequency radio telescope array

2. India's Present Challenges

- **Underutilisation of funds:** Actual expenditure often falls below budget estimates, causing project delays.
- **Dependence on foreign facilities** for:
 - High-resolution optical astronomy
 - High-frequency radio observations
 - **Sub-millimetre astronomy** (India has **no telescope** in this range)
- **Restricted access** to international telescopes as nations prioritise domestic researchers.
- **Bureaucratic resistance** to innovative models like **buying fractional telescope time** abroad.
- **Brain drain** due to lack of comparable facilities within India.

3. Global Context

Only **USA, China, Japan, and the European Union** heavily prioritise astronomy and continuously upgrade **space-based and terrestrial telescopes**.

4. Strategic Vision

Astronomy & Astrophysics Mega Science Vision 2035

- Proposes:
 - **Sub-millimetre telescope** (proposal in pipeline)
 - Next-generation observatories
 - AI-driven data processing centres

Q. Consider the following statements regarding India's astronomy and space research ecosystem:

- The Giant Metrewave Radio Telescope (GMRT) is the world's largest low-frequency radio telescope array.*
- India currently possesses a fully operational sub-millimetre wavelength telescope.*
- The National Large Solar Telescope is being set up near Pangong Lake in Ladakh.*
- IN-SPACE was established to promote public-private partnerships in the space sector.*

Which of the statements given above are correct?

- I, III and IV only*
- I and II only*
- II, III and IV only*
- I, II, III and IV*

Correct Answer: (a)

Explanation:

Statement I Correct: *The Giant Metrewave Radio Telescope (GMRT) located near Pune is the **world's largest radio telescope array operating at low radio frequencies**. It attracts astronomers from across the world and plays a crucial role in studying pulsars, galaxies, and the early universe, making the statement **correct**.*

Statement II not Correct: *India **does not currently have any telescope operating in the sub-millimetre wavelength range**, which is considered a critical window for studying dusty galaxies and proto-stellar disks. Such a facility is only at the **proposal stage** under the Astronomy & Astrophysics Mega Science Vision 2035, hence this statement is **incorrect**.*

Statement III correct: *The Union Budget 2026–27 has allocated funds for the construction of the **National Large Solar Telescope (NLST) near Pangong Lake in Ladakh**, aimed at high-resolution solar studies and space weather research. Therefore, this statement is **correct**.*

Statement IV Correct: *The **Indian National Space Promotion and Authorisation Centre (IN-SPACE)** was established in **2020** by the Department of Space to **promote and regulate public-private partnerships** and encourage private sector participation in India's space ecosystem, making this statement **correct**.*

5.2. KIMBERLEY PROCESS (KP)

Context:

Recently, **India formally assumed the Chairpersonship of the Kimberley Process (KP)** for the year 2026, following its selection by the KP Plenary. This marks the third time India has been entrusted with leading this global initiative (previously in 2008 and 2019).



About Kimberley Process (KP)

The Kimberley Process is a **multilateral trade regime** established to prevent the trade of 'conflict diamonds'.

1. Understanding Conflict Diamonds

- **Definition:** Conflict diamonds, also known as "**blood diamonds**," are rough diamonds used by rebel movements or their allies to finance armed conflicts aimed at undermining legitimate governments.
- **UN Connection:** This definition is strictly based on **United Nations Security Council (UNSC)** resolutions.
- **Scope Limitation:** Currently, the KP mandate does only cover diamonds used by *rebels* against *governments*; it does not officially cover diamonds linked to state-sponsored human rights abuses or environmental degradation (a point of ongoing international debate).

2. The Kimberley Process Certification Scheme (KPCS)

- **Launch:** It was established in **2003** following the Kimberley Process meeting in South Africa and the "Interlaken Declaration."
- **Mandate:** It is not an international organization but a **voluntary certification scheme** implemented through national legislations of participant countries.
- **Key Requirements:**
 - **Tamper-proof Containers:** Every shipment of rough diamonds must be transported in a tamper-proof container.
 - **Validated Certificates:** Each shipment must be accompanied by a government-validated **Kimberley Process Certificate**.
 - **Restricted Trade:** Participants can **only trade rough** diamonds with other members of the KPCS.

3. Tripartite Structure

The Kimberley Process is unique because it operates as a **tripartite coalition** involving:

1. **Governments:** Currently has 60 participants (representing 86 countries, with the EU as one participant).
2. **Diamond Industry:** Represented by the **World Diamond Council (WDC)**.
3. **Civil Society:** Represented by various NGOs like the Kimberley Process Civil Society Coalition.

4. Governance and Decision Making

- **Consensus-Based:** All decisions within the KP are made by **consensus**, meaning any single participant can veto a resolution. This often leads to "deadlocks" on sensitive issues like sanctioning major producers.
- **Rotating Chair:** The Chairmanship rotates annually; the Vice-Chair of the current year typically becomes the Chair the following year.

5. Kimberley Process and India

- **Founding Member:** India is a founding member of the KPCS.
- **Nodal Agency:** The **Department of Commerce** is the nodal department, and the **Gem & Jewellery Export Promotion Council (GJEPC)** is the designated authority for issuing certificates.
- **Strategic Importance:** India processes (cuts and polishes) nearly **90% of the world's rough diamonds**, primarily in Surat and Mumbai.
- **2026 Chair Goals:** India aims to focus on digital traceability (blockchain), strengthening compliance, and supporting the interests of the African diamond-producing nations (the "Global South").

Q. With reference to the Kimberley Process (KP), consider the following statements:

1. It is a legally binding international treaty signed under the aegis of the World Trade Organization (WTO).
2. Decisions within the Kimberley Process are made through a consensus-based approach rather than a majority vote.
3. The current mandate of the Kimberley Process excludes diamonds used by governments to fund human rights violations.
4. India is the permanent secretariat host for the Kimberley Process Certification Scheme.

How many of the above statements are correct?

- A) Only one
- B) Only two
- C) Only three
- D) All four

Correct Answer: B (Only two)

Explanation:

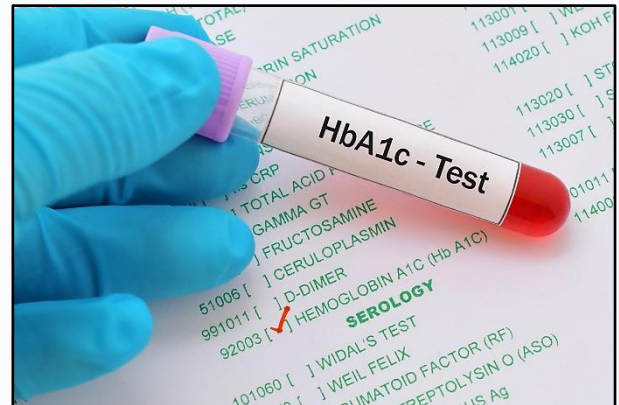
- **STATEMENT 1 INCORRECT:** The KP is **not a legally binding treaty**; it is a voluntary certification scheme implemented through the national laws of its participants. It is also rooted in UN resolutions, not the WTO.
- **STATEMENT 2 CORRECT:** Decisions are indeed made by **consensus**, which is a unique feature that often results in procedural delays.

- **STATEMENT 3 CORRECT:** The KP definition of "conflict diamonds" is narrow; it specifically refers to diamonds used by **rebel movements** against legitimate governments. It does not currently cover state-led human rights abuses.
- **STATEMENT 4 INCORRECT:** The KP does not have a permanent secretariat in India; it has historically been an informal body. However, in 2022, members voted to establish a Permanent Secretariat in **Gaborone, Botswana**.

5.3. HBA1C (GLYCATED HAEMOGLOBIN) TEST

Context:

Indian diabetologists cautioned against over-reliance on the HbA1c test for diabetes care, noting that widespread anaemia, iron deficiency and genetic blood disorders in India can distort results. They recommended a multiparametric diagnostic approach—combining HbA1c with OGTT and continuous glucose monitoring (CGM)—to ensure accurate assessment and management of India's 101+ million diabetics.



About HbA1c (Glycated Haemoglobin) Test

The HbA1c test has long been considered the "gold standard" for assessing long-term blood sugar control.

1. What is HbA1c?

- **Definition:** HbA1c stands for **glycated haemoglobin**. It is formed when glucose (sugar) in the blood sticks to haemoglobin, the protein in red blood cells (RBCs) responsible for carrying oxygen.
- **Mechanism:** The process of glucose binding to haemoglobin is called **glycation**. The more sugar there is in the blood, the higher the percentage of haemoglobin that becomes glycated.
- **Timeframe:** Because red blood cells have an average lifespan of approximately **120 days (3 to 4 months)**, the HbA1c test reflects the average blood sugar levels over the preceding **8 to 12 weeks**.

2. Advantages over Traditional Tests

- **Stability:** Unlike Fasting Plasma Glucose (FPG) or Post-Prandial (PP) tests, HbA1c is not affected by recent meals, physical activity, or short-term stress.
- **Convenience:** The test can be performed at any time of the day and does **not require fasting**.
- **Complication Correlation:** High HbA1c levels are directly linked to an increased risk of long-term diabetic complications such as **retinopathy** (eye damage), **nephropathy** (kidney disease), and **neuropathy** (nerve damage).

3. Interpretation of Results

The results are typically reported as a percentage. According to the American Diabetes Association (ADA) and WHO:

Result Range	Category
Below 5.7%	Normal
5.7% to 6.4%	Prediabetes
6.5% or Higher	Diabetes

4. Limitations and Factors Affecting Accuracy

Several biological factors can lead to falsely high or low readings, making the test unreliable in specific populations:

- **Haemoglobin lifespan:** Any condition that changes the lifespan of RBCs (like certain types of anaemia) will alter the result.
- **Anaemia:** Iron-deficiency anaemia can lead to **falsely elevated** HbA1c levels.
- **Blood Disorders:** Haemoglobinopathies such as **sickle cell disease** or **thalassaemia** interfere with the measurement of glycated haemoglobin.
- **Other Conditions:** Kidney failure, liver disease, pregnancy (especially in the 2nd and 3rd trimesters), and recent blood transfusions can significantly distort results.

Q. With reference to the HbA1c (Glycated Haemoglobin) test used in the diagnosis of diabetes, consider the following statements:

1. The test measures the average blood glucose levels by assessing the glucose attached to the plasma rather than the red blood cells.
2. Unlike the Oral Glucose Tolerance Test (OGTT), the HbA1c test does not require the patient to be in a fasting state.
3. Conditions such as iron-deficiency anaemia and thalassaemia can cause the HbA1c test to provide inaccurate results.

How many of the above statements are correct?

- A) Only one
- B) Only two
- C) All three
- D) None

Correct Answer: B (Only two)

Solution:

- **STATEMENT 1 INCORRECT:** The HbA1c test measures the percentage of glucose attached specifically to **haemoglobin** within the **red blood cells**, not the glucose in the blood plasma.
- **STATEMENT 2 CORRECT:** One of the main advantages of HbA1c is its convenience, as it reflects a 3-month average and is **not affected by recent food intake**, thus requiring no fasting.

- **STATEMENT 3 CORRECT:** Any condition that affects the quantity, structure, or lifespan of haemoglobin (like **anaemia** or **haemoglobinopathies**) can distort the glycation percentage, leading to false results.

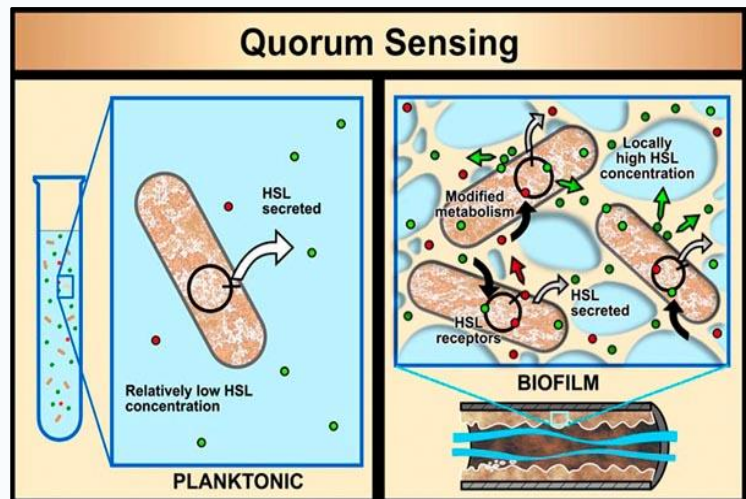
5.4. UNDERSTANDING THE SCIENCE OF MICROBIAL COORDINATION

Context:

Recently, the renowned molecular biologist Prof. Bonnie Bassler, while delivering a lecture at the Indian Institute of Science (IISc) in Bengaluru, highlighted how bacteria use a "chemical language" to coordinate collective behavior.

This phenomenon, known as Quorum Sensing, is being hailed as a critical frontier in medical science, particularly for developing "anti-quorum sensing" therapies. These therapies aim to disrupt

bacterial communication to treat infections like Cholera without the use of traditional antibiotics, thereby providing a potential solution to the global crisis of Anti-Microbial Resistance (AMR).



More About Bacterial Communication (Quorum Sensing)

1. What is Quorum Sensing?

- **Definition:** It is a process of **cell-to-cell communication** that allows bacteria to share information about their population density and adjust their gene expression accordingly.
- **Collective Behavior:** It enables single-celled organisms to act like a multicellular entity. This ensures that energy-expensive processes (like toxin production) are only performed when there are enough bacteria present to successfully overwhelm a host's immune system.

2. The Mechanism of Communication

Bacterial communication relies on the production and detection of signaling molecules called Autoinducers. The process follows four distinct stages:

- **Production:** Bacteria continuously produce a low level of autoinducer molecules.
- **Accumulation:** As the bacterial population grows, the concentration of these molecules in the environment increases.
- **Detection:** Once the concentration reaches a specific threshold (a "quorum"), the molecules bind to receptors on or inside the bacterial cells.
- **Response:** This binding triggers a synchronized change in gene expression across the entire population.

3. Key Traits Controlled by Quorum Sensing

- **Virulence:** The release of toxins (e.g., *Vibrio cholerae*).

- **Biofilm Formation:** Creating sticky, protective layers on surfaces like medical implants or teeth, which makes them highly resistant to antibiotics.
- **Bioluminescence:** Producing light in response to high density (e.g., *Vibrio fischeri* in a symbiotic relationship with the Hawaiian bobtail squid).

4. Quorum Quenching: The Future of Medicine

- Concept: Instead of killing bacteria (as antibiotics do), Quorum Quenching focuses on "silencing" them by disrupting their communication.

Q. Which one of the following terms best describes the phenomenon of 'Quorum Sensing' in microbial populations?

- (a) A method of asexual reproduction where bacteria divide at a constant rate to maintain a threshold population.
- (b) A density-dependent chemical communication system used by bacteria to coordinate collective behavior.
- (c) The process by which bacteria sense and move toward higher concentrations of nutrients in their environment.
- (d) A survival mechanism where bacteria enter a state of dormancy to resist extreme environmental stress.

Correct Answer: (b)

Explanation:

Quorum sensing is defined by two main features: it is **density-dependent** (it only triggers when a "quorum" or specific number of bacteria is reached) and it involves **chemical signaling** (autoinducers) to coordinate **collective behaviors** like biofilm formation or toxin release.

5.5. DAC APPROVAL FOR 114 RAFALES & P-8I

Context:

Recently, the Defence Acquisition Council (DAC), chaired by Union Defence Minister Rajnath Singh, accorded the **Acceptance of Necessity (AoN)** for capital acquisition proposals worth approximately **₹3.60 lakh crore**.

The most prominent approvals include the procurement of **114 Multi-Role Fighter Aircraft (MRFA)**, specifically the **Rafale**, for the Indian Air Force and **six additional Boeing P-8I Poseidon** long-range maritime reconnaissance aircraft for the Indian Navy.



1. The 114 Rafale (MRFA) Project

- **Operational Need:** The Indian Air Force (IAF) currently operates about **29-30 squadrons**, far below the sanctioned strength of **42 squadrons**.
- **Procurement Model:** Out of the 114 jets, approximately **18 will be in fly-away condition** from France, while the remaining **96 will be manufactured in India** through a collaboration between **Dassault Aviation and Indian partners** (HAL/Private sector).
- **Indigenous Content:** The deal mandates nearly **50-60% indigenous content**, supporting the *Atmanirbhar Bharat* initiative.
- **Capabilities:** The Rafale is a **4.5-generation** "omni-role" aircraft equipped with the **Meteor** (Beyond Visual Range air-to-air), **SCALP** (cruise missile), and **MICA** missile systems.

2. P-8I Poseidon Maritime Aircraft

- **Function:** The P-8I is a Long-Range Maritime Reconnaissance and **Anti-Submarine Warfare (LRMR-ASW)** aircraft.
- **Manufacturer:** It is manufactured by **Boeing (USA)** and is a variant of the P-8A Poseidon used by the US Navy.
- **Equipment:** It features a **Magnetic Anomaly Detector (MAD)** (specific to the Indian version), AGM-84 Harpoon anti-ship missiles, and Mk-54 lightweight torpedoes.
- **Strategic Role:** These aircraft are "force multipliers" in the Indian Ocean Region (IOR), used for surveillance, search and rescue, and tracking enemy submarines.

3. Defence Acquisition Council (DAC)

- **Authority:** The DAC is the highest decision-making body in the Ministry of Defence for new acquisitions.
- **Composition:** It is chaired by the **Union Minister of Defence** and includes the Chief of Defence Staff (CDS) and the three Service Chiefs.
- **The AoN Step:** The **Acceptance of Necessity (AoN)** is the initial regulatory hurdle. It does not mean a contract is signed but signals that the government agrees the equipment is a necessity.

Q. With reference to the recent approvals by the Defence Acquisition Council (DAC), consider the following statements:

1. The 'Acceptance of Necessity' (AoN) granted by the DAC represents the final financial clearance and the signing of the procurement contract.
2. The P-8I aircraft is a multi-mission platform primarily designed for long-range anti-submarine warfare and maritime surveillance.
3. Under the current MRFA proposal for 114 Rafales, the majority of the aircraft are intended to be manufactured within India.

Which of the statements given above are correct?

(a) 1 and 2 only

(b) 2 and 3 only

(c) 1 and 3 only

(d) 1, 2 and 3

Correct Answer: (b)

Explanation

- **STATEMENT 1 IS INCORRECT:** The AoN is only the **first step** in the procurement process. Final financial approval is granted by the **Cabinet Committee on Security (CCS)**, chaired by the Prime Minister, after cost negotiations.
- **STATEMENT 2 IS CORRECT:** The P-8I Poseidon is indeed a specialized aircraft for **Anti-Submarine Warfare (ASW)** and maritime reconnaissance.
- **STATEMENT 3 IS CORRECT:** A major highlight of the 114-jet MRFA deal is the **indigenization** aspect, where 96 of the jets are slated for domestic production.

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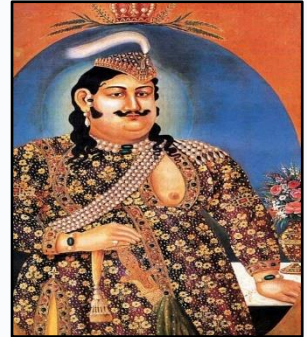
Prelims Test Series

6.1. NAWAB WAJID ALI SHAH

Context

Recently, the 19th-century Nawab of Awadh, Wajid Ali Shah, returned to the limelight following the release of a new biography by his great-grandson, which challenges the long-held historical narrative that he was forcibly "exiled" to Calcutta by the British.

The book argues that the Nawab moved to Calcutta of his own volition to prepare for a journey to London to petition Queen Victoria against the annexation of his kingdom, a plan that was ultimately thwarted by the British.



Details About Nawab Wajid Ali Shah

1. The Tenth and Last Nawab of Awadh

- Wajid Ali Shah ascended the throne in 1847 at a time when the British East India Company (EIC) had already turned Awadh into a **buffer state**.
- Despite British claims of his "maladministration," records show he introduced reforms in the **military and judicial systems** based on both Mohammedan and Hindu laws.

2. Annexation of Awadh (1856)

- **Pretext:** Lord Dalhousie annexed Awadh on February 7, 1856, citing "**maladministration**" or misgovernance, rather than the Doctrine of Lapse (as the Nawab had heirs).
- **Justification:** The decision was largely based on a biased report by the British Resident, **Colonel Sleeman**, and later **James Outram**.
- **Impact:** The annexation was a primary spark for the **Revolt of 1857**, as Awadh was the main recruiting ground for the EIC's sepoys.

3. Patron of Culture and Arts

Wajid Ali Shah is often credited with the revival and refinement of North Indian art forms:

- **Kathak:** He was a disciple of **Thakur Prasad** and **Durga Prasad**. Under his patronage, the **Lucknow Gharana** of Kathak emerged, characterized by *Nazakat* (elegance) and *Abhinaya* (expression).
- **Thumri:** He is considered a pioneer of the light classical music form, **Thumri**. He composed numerous pieces under the pseudonym '**Akhtarpiya**'.
- **Theatre:** He established the '**Parikhana**' (a school for music and dance) and staged elaborate dance-dramas called '**Rahas**' (inspired by Rasleela).

4. Legacy in Calcutta (Metiabruz)

Following the annexation, he shifted to **Metiabruz** (Kolkata). He recreated the culture of Lucknow there, introducing:

- **Cuisine:** The addition of the **potato** to Biryani is famously attributed to the financial constraints of his exiled court in Calcutta.
- **Pastimes:** He popularized **kite-flying** and exotic animal collections (zoos) in Bengal.

5. Notable Literary Works

Wajid Ali Shah was a prolific writer in Urdu, Persian, and Braj Bhasha.

- **Bani:** A comprehensive treatise on music and dance.
- **Huzn-i-Akhtar:** An autobiographical work detailing his emotional suffering after losing his kingdom.
- **Sawat-ul-Qalub:** A massive collection of over 44,000 couplets.

Q. With reference to Nawab Wajid Ali Shah and the annexation of Awadh, consider the following statements:

- Awadh was annexed by Lord Dalhousie under the provisions of the Doctrine of Lapse as the Nawab had no natural heir.*
- The Nawab composed several Thumris and musical treatises under the pen name 'Akhtarpiya'.*
- The Lucknow Gharana of Kathak reached its peak of refinement under his direct patronage and artistic guidance.*

Which of the statements given above is/are correct?

- I and II only*
- II and III only*
- III only*
- I, II, and III*

Correct Answer: B

Explanation:

- **STATEMENT I IS INCORRECT:** Awadh was annexed on the grounds of **maladministration** (misgovernance), not the Doctrine of Lapse, because Wajid Ali Shah had several heirs (including Birjis Qadr).
- **STATEMENT II IS CORRECT:** The Nawab was a gifted musician and used '**Akhtarpiya**' as his pseudonym for musical compositions.
- **STATEMENT III IS CORRECT:** He was a dedicated patron of Kathak; he studied under gurus **Thakur and Durga Prasad** and popularized the **Lucknow Gharana**.

6.2. THE DISCOVERY OF TAMIL-BRAHMI AND SANSKRIT INSCRIPTIONS AT LUXOR

Context:

Recently, researchers discovered nearly **30 inscriptions** in Indian languages, including **Tamil Brahmi (Tamili)**, **Prakrit**, and **Sanskrit**, within the rock-cut tombs of the **Valley of the Kings** in Luxor, Egypt. The inscriptions date back to the **1st to 3rd centuries CE** and provide conclusive evidence of the deep-seated presence of Indian merchants and travelers in the heart of the Roman-era Nile Valley, extending beyond the previously known coastal trade hubs.



Key Highlights of the Discovery

1. Geographical Location and Context

- **Site:** The inscriptions were found in six rock-cut tombs in the **Theban Necropolis (Valley of the Kings)**, a UNESCO World Heritage site.
- **Significance of Location:** Earlier, most Indian inscriptions were found at Red Sea ports like **Berenike and Quseir al-Qadim**; their discovery in the Nile Valley suggests that Indian traders traveled beyond the ports into Egypt's interior for trade or other activities.

2. Major Inscriptions and Decipherment

- **Cikai Korran:** This name appears **eight times** across five different tombs.
 - 'Cikai' is linked to the Sanskrit *shikha* (tuft/crown).
 - 'Korran' is a distinct Tamil name derived from *korram* (victory), often associated with the goddess **Korravai**.
- **Kopan Varata Kantan:** Another inscription translated as "**Kopan came and saw,**" which mirrors the formulaic style of Greek graffiti found in the same tombs. This suggests the visitors were literate and possibly multilingual.
- **Other Names:** Inscriptions also mentioned names like **Catan** and **Kiran**, which are common in Tamil Sangam literature.

3. Linguistic and Historical Significance

- **Two-Way Trade:** The discovery proves that trade was not merely a "one-way" Roman venture to India but involved active participation and physical presence of Indian mercantile communities in the Roman Empire.
- **Script Variety:** While 20 inscriptions are in **Tamil Brahmi**, others are in **Sanskrit** and **Prakrit**. One Sanskrit inscription mentions a *duta* (envoy) of a **Kshaharata king** (Western Kshatrapas), highlighting official diplomatic or trade missions from Western India.
- **Timeline:** The 1st to 3rd century CE timeframe aligns perfectly with the peak of the **Indo-Roman trade** mentioned in Sangam literature and by Roman chroniclers like **Ptolemy** and **Pliny the Elder**.

4. Comparative Table: Indian Inscriptions in Egypt & Middle East

Site Name	Location	Key Discovery	Script / Language
Valley of the Kings	Nile Valley, Egypt	Graffiti on tomb walls (Cikai Korran)	Tamil Brahmi, Prakrit, Sanskrit
Berenike	Red Sea Coast, Egypt	Potsherd mentioning <i>Korrapuman</i>	Tamil Brahmi
Quseir al-Qadim	Red Sea Coast, Egypt	Storage jar with <i>Paanai ori</i> (pot in a rope net)	Tamil Brahmi
Khor Rori (Sumhuram)	Dhofar, Oman	Potsherd mentioning <i>Nantai Kiran</i>	Tamil Brahmi

Q. With reference to the recently discovered Tamil Brahmi inscriptions in Egypt's Valley of the Kings, consider the following statements:

- I. These inscriptions provide the first evidence of Indian merchant presence in the Red Sea port cities of Egypt.
- II. The inscriptions include the name 'Cikai Korran', which shows linguistic influences from both Sanskrit and Tamil.
- III. The presence of Sanskrit inscriptions mentioning an envoy of the Kshaharata dynasty suggests diplomatic links between Western India and the Roman-Egyptian region.

Which of the statements given above is/are correct?

- A) I and II only
- B) II and III only
- C) I and III only
- D) I, II, and III

Correct Answer: B

Solution:

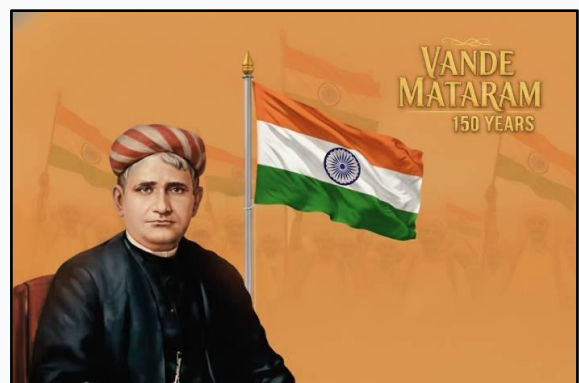
- **STATEMENT I INCORRECT:** Evidence of Indian presence in Egypt (at Berenike and Quseir al-Qadim) has been known since the 1990s; the Valley of the Kings find is significant because it is located in the **interior Nile Valley**, not a coastal port.
- **STATEMENT II CORRECT:** 'Cikai' is derived from the Sanskrit shikha, and 'Korran' is a classical Tamil name, demonstrating a blend of linguistic traditions among the traveling community.
- **STATEMENT III CORRECT:** Researchers identified a Sanskrit inscription mentioning a *duta* (envoy) of a Kshaharata king, confirming that rulers from Western India (the Kshatrapas) had representatives visiting Egypt during the 1st century CE.

6.3. PLAYING VANDE MATARAM BEFORE THE NATIONAL ANTHEM

Context:

Recently, a fresh administrative and political discourse has emerged following new guidelines issued by the Ministry of Home Affairs (MHA) regarding the protocol for the National Song, **Vande Mataram**.

Centre has mandated that the **complete six-stanza version** of the song be played or sung at official government functions, award ceremonies, and civil investiture ceremonies. Crucially, the directive stipulates that when both the National Song and the National Anthem are performed together, **Vande Mataram must precede Jana Gana Mana**.



Historical Evolution of Vande Mataram

1. Composition and Publication

- **Author:** Composed by **Bankim Chandra Chattopadhyay** in the 1870s (specifically 1875).
- **Language:** Written in a mixture of **Sanskrit and Bengali**.
- **Literary Source:** It was later included in his famous novel **Anandamath**, published in **1882**, which depicts the **Sannyasi Rebellion**.

2. Role in the Freedom Movement

- **1896 Congress Session:** **First sung** publicly by **Rabindranath Tagore** at the Calcutta session of the **Indian National Congress**.
- **1905 Swadeshi Movement:** It became the primary rallying cry and a symbol of resistance during the protests against the **Partition of Bengal**.
- **1907 Global Recognition:** **Madam Bhikaji Cama** unfurled the first version of the Indian flag in Stuttgart, Germany, with "**Vande Mataram**" inscribed on it.

Constitutional and Legal Status

1. National Song vs. National Anthem

- **Adoption:** On **January 24, 1950**, the President of the Constituent Assembly, **Dr. Rajendra Prasad**, declared *Jana Gana Mana* as the National Anthem and *Vande Mataram* as the National Song.
- **Equality of Status:** Dr. Prasad stated that *Vande Mataram* shall be honored equally with *Jana Gana Mana* and shall have **equal status** with it.

2. Legal Protections

- **National Anthem:** Explicitly protected under the **Prevention of Insults to National Honour Act, 1971**. Disrespecting or intentionally preventing the singing of the anthem is a punishable offense.
- **National Song:** While the government maintains it deserves equal respect, it is **not explicitly mentioned** in the 1971 Act or **Article 51A** (Fundamental Duties) of the Constitution. Article 51A(a) only mentions the National Flag and the National Anthem.

Comparison: Jana Gana Mana vs. Vande Mataram

Feature	National Anthem (Jana Gana Mana)	National Song (Vande Mataram)
Composer	Rabindranath Tagore	Bankim Chandra Chattopadhyay
First Performance	1911 (Congress Session, Calcutta)	1896 (Congress Session, Calcutta)
Official Duration	Approximately 52 seconds	New guidelines: 3 mins 10 secs (Full version)
Legal Mandate	Prevention of Insults to National Honour Act, 1971	Guidelines (MHA), No specific penal law yet

Fundamental Duty	Explicitly mentioned in Article 51A(a)	Not explicitly mentioned in Article 51A
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Q. With reference to the National Song and the National Anthem of India, consider the following statements:

1. The song 'Vande Mataram' was first sung at a public political occasion by Rabindranath Tagore in 1896.
2. Both the National Anthem and the National Song are explicitly mentioned as symbols to be respected under the Fundamental Duties (Article 51A).
3. According to the latest 2026 MHA guidelines, the National Song must be played before the National Anthem at official government ceremonies.

Which of the statements given above is/are correct?

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

Answer: C

Solution:

- **STATEMENT 1 CORRECT:** Rabindranath Tagore set the tune for Vande Mataram and sang it at the 1896 Calcutta session of the Indian National Congress.
- **STATEMENT 2 INCORRECT:** Article 51A(a) of the Indian Constitution requires citizens to respect the "National Flag and the National Anthem." It **does not** explicitly mention the "National Song."
- **STATEMENT 3 CORRECT:** The new protocol issued by the Ministry of Home Affairs in early 2026 mandates that Vande Mataram precede the National Anthem during official state functions.
