



FORTUNE WEEKLY DIGEST



➤ Pardon Powers

➤ Syrian Crisis

➤ Migration

01<sup>st</sup> DECEMBER - 07<sup>th</sup> DECEMBER, 2024

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## EDITOR'S NOTE

As UPSC aspirants, it is essential to stay updated on current affairs to excel in the examination. This **Fortune Weekly Digest (ForWarD)** brings you the latest news and developments from around the world, carefully curated and analyzed to help you prepare for the Civil Services (Main) Examination.

We understand that time is precious, and we have made sure to present the information in a concise and easy-to-understand manner.

The magazine is divided into different sections. Mains relevant topics have been covered in detail with a UPSC previous year question perspective. The jot downs are examples and interesting facts to enrich your answer writing. Cherrypicks has some key words from the week, helpful again in answer writing and essay. We have also included essay topics and sample questions to help you gauge your preparation.

We have designed this magazine to best supplement the daily current affairs notes we have launched by the name of **FIND (Fortune IAS News Daily)** and **FINDER (Fortune IAS News Daily Explainer)** and the **Fortune Prelims Precise** monthly compilation. This magazine will be explained in detail and your queries addressed in a live class we conduct.

At a time when there is no dearth of current affairs materials, our hope is help you get a one-stop solution for all your current affairs needs.

This magazine is a work in progress and your feedback will be appreciated.

We hope that this magazine will serve as a valuable resource for your exam preparation and contribute to your success in the UPSC examination.

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**FIRST ATTEMPT TOPPERS FROM  
OUR PRELIMS CUM MAINS BATCH**

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**MANJIMA P**  
AIR 235

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WOMEN IN POWER

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# ONE NATION ONE SUBSCRIPTION (ONOS)

**Syllabus: GS II - Government policies and interventions for development in various sectors**

## PYQ MAPPING

**Q)** The quality of higher education in India requires major improvements to make it internationally competitive. Do you think that the entry of foreign educational institutions would help improve the quality of higher and technical education in the country? Discuss. (2015)

**Q)** National Education Policy 2020 is in conformity with the Sustainable Development Goal-4 (2030). It intends to restructure and reorient the education system in India. Critically examine the statement (2020)

## WHY IN NEWS

On November 25, 2024, the Union Cabinet approved **Rs.6,000 crore for the 'One Nation One Subscription' (ONOS) initiative**, aiming to provide higher education institutions (HEIs) with **free access to premium academic resources**, enhancing education and research quality.

## INTRODUCTION

Access to quality academic resources has long been a challenge for educational institutions in India, often limiting the scope of research and innovation. The 'One Nation One Subscription' (ONOS) initiative represents a strategic move to address this gap, fostering a **culture of knowledge-sharing and inclusivity** in higher education.

## SHORT TAKES

- **University Grants Commission (UGC):** Established on 28th December 1953 and became a statutory body in 1956, tasked with coordinating and maintaining standards in university education in India.
- **Information and Library Network (INFLIBNET):** Established in 1991, it is a UGC Inter-University Centre that modernizes libraries and facilitates information transfer across 264 academic institutions in India..
- **Digital Object Identifier (DOI):** A unique string of numbers, letters, and symbols that permanently identifies an object and provides a link to its information.
- **Open Access (OA) Journals:** A scholarly publication that provides free, unrestricted access to its articles, typically funded through author fees or institutional support rather than subscriptions.
  - **Gold OA:** Articles are fully accessible on the publisher's website under a creative commons license. The author (or funder) usually pays an Article Processing Charge (APC).
  - **Hybrid OA:** Subscription-based journals where authors can pay an APC to make individual articles open access. Libraries still pay for the journal subscription, meaning the publisher is paid twice.
  - **Diamond/Platinum OA:** Journals that provide open access without charging APCs, funded by institutions, advertising, or philanthropy.
  - **Bronze OA:** Journals that are free to read but lack a formal open license, and thus limited in terms of how the content can be used.
  - **Green OA:** Authors self-archive versions of their articles in open access repositories, typically preprints (versions before peer review) or postprints (versions after peer review)

## ORIGIN AND BACKGROUND OF THE ONOS INITIATIVE

### ➔ Link to National Education Policy (NEP) 2020

- o The ONOS scheme aligns with **NEP 2020**, which emphasizes research as a crucial component for **education excellence** and **national development**.
- o The policy highlights the need for **expanding research capabilities** and output to transform India into a **leading knowledge society**.

### ➔ Focus on Research and Innovation

- o NEP 2020 advocates for the creation of a **National Research Foundation (NRF)** to foster research, innovation, and development across India's higher education institutions.

### ➔ Formation of Core Committee and Negotiations

- o In 2022, the **central government** set up a **core committee of secretaries**, chaired by the Principal Scientific Advisor, to facilitate negotiations with journal publishers for the ONOS scheme.

## HOW HIGHER EDUCATION INSTITUTIONS (HEIs) CURRENTLY ACCESS JOURNALS?

### ♣ Library Consortia

- o HEIs access journals through 10 different library consortia which are coordinated by various ministries and enable resource sharing across institutions.
  - A library consortium is a group of two or more libraries that have agreed to cooperate to fulfil certain similar needs, usually resource sharing.

### ♣ Information and Library Network (INFLIBNET) Centre

- o The **INFLIBNET Centre** facilitates the **UGC-Infonet Digital Library Consortium**, providing access to scholarly journals and databases in multiple disciplines.

- o It is managed by the **Ministry of Education** and serves as a major platform for academic resources.

### ♣ Individual Subscriptions

- o Many HEIs also subscribe to academic journals independently.
- o This allows institutions to access specific journals beyond the consortia's offerings.

### ♣ Access to Journals

Approximately **2,500 HEIs** in India can access over **8,100 journals** via the consortia and individual subscriptions, covering a wide range of academic fields.

## WHAT THE ONOS SCHEME OFFERS?

- 🔍 **Consolidation of Access:** ONOS unifies journal access for government HEIs, replacing multiple subscriptions.

### 🔍 Single Platform Access:

- o Starting January 1, 2025, state and central government HEIs will access **13,000 journals via one platform**.
- o Includes journals from **30 publishers** like Elsevier, Springer, Wiley, and IEEE will be available.
- o Provides a **62% increase in journal access, covering 95% of published research**.

### 🔍 Easy Access for Institutions

- o HEIs only need to register on the platform to access these journals, simplifying the process.

### 🔍 Centralized Subscription Model

- o The central government has negotiated one subscription price for each of the 30 publishers, ensuring cost-effectiveness.

### 🔍 Implementation

- o INFLIBNET is designated as the implementing agency for this initiative.
- o Students and faculty can **access and download**

**research papers even remotely** without being physically present in the campus.

- o ONOS will be implemented in three phases:

- **Phase I:** Merging consortia and providing access to public institutions.
- **Phase II:** Expanding access to private institutions.
- **Phase III:** Universal access through public libraries.

### 🔍 Provision for Additional Subscriptions

- o If HEIs require journals outside the 13,000 available on the platform, they can still subscribe to additional journals individually.

### 🔍 Funding Support

- o A budget of **Rs 6,000 crore** has been allocated for 2025–2027.
- o Includes **Rs.150 crore for Article Processing Charges (APC)**, enabling free publication in open-access journals.
  - APC is a fee charged to authors to make their work available as open access (OA).

## NEED FOR ONOS SCHEME

### ☀ Wider Access for a Larger Audience

- o ONOS will expand access to scholarly journals for **55 lakh to 1.8 crore students, faculty, and researchers** across approximately **6,300 government institutions**, including those in Tier 2 and Tier 3 cities.
- o Aims to **expand access to private institutions** and **eventually all citizens** via public libraries.

### ☀ Reduction in Duplication of Subscriptions

- o Consolidated subscription model reduces duplication and lowers costs through centralised negotiations.

### ☀ Better Bargaining Power

- o A single subscription model for all government HEIs enhances the **negotiating power** with



publishers, significantly lowering the cost of journal subscriptions.

- For instance, the initial cost of Rs 4,000 crore per year was reduced to Rs 1,800 crore.

### ☀ Improved Insights for Planning

## OTHER INITIATIVES

### 🌀 Anusandhan National Research Foundation (ANRF):

- o **Establishment:** The ANRF was created through the **Anusandhan National Research Foundation (ANRF) 2023 Act**.
- o **Objective:**
  - Its primary aim is to **seed, grow, and promote research and development (R&D)**, fostering a culture of innovation and research across India's universities, colleges, research institutions, and R&D laboratories.
  - ANRF will serve as an **apex body** that provides **high-level strategic direction** for scientific research in India, following the guidelines of the **National Education Policy (NEP)**.
- o **Merger with SERB:** The **Science and Engineering Research Board (SERB)**, established by an act of

- o The Centre will gain valuable **data on journal usage**, helping to monitor access patterns and ensure the platform's effective use across the education ecosystem.
- o This will also encourage institutions to maximize usage and promote the platform's benefits.

Parliament in 2008, has been subsumed **into ANRF** as part of its restructuring.

- o **Collaborations and Partnerships:** ANRF aims to **forge collaborations** among **industry, academia, government departments, and research institutions**, ensuring effective participation of industries and state governments in research initiatives."

### 🌀 Prime Minister Early Career Research Grant (PMECRG)

- o Under the **ANRF**, it provides flexibility in resource utilization, recruitment, travel, contingency, open access publications, patent filing, budgeting to support high-quality, innovative research.
- o Offers up to **Rs. 60 lakh** in funding for a three-year period, and a maximum of **700 grants awarded annually** across all subject areas.

## CHALLENGES FOR THE ONOS INITIATIVES

- **Negotiation of Article Processing Charges (APCs):** Negotiating lower APCs with publishers can be difficult, as these fees are an important source of revenue for journals.
- **Subscription Model vs. Open Access (OA):** India's investment in a subscription model raises concerns given the global shift towards Open Access (OA) publishing
  - o Despite OA advocacy, **60-70% of journals in ONOS remain subscription-based**.
  - o OA publications, which **account for over 53% of research articles, are increasingly free to access**, questioning the necessity of ONOS in its current form.
- **Inclusion of Private HEIs:** The ONOS initiative currently includes only government-run higher education institutions (HEIs), leaving out private institutions.
- **Reliance on Western Publishers:** The scheme reinforces reliance on Western publishers, who charge high fees, limiting India's ability to develop a self-sustaining, innovative publishing ecosystem.
- **Copyright Issues:** Researchers often lose copyright control, allowing publishers to use their work without consent.
  - o ONOS could have **protected intellectual property and promoted green OA** through institutional repositories.
- **Long-term Sustainability:** The financial sustainability of ONOS beyond the initial Rs 6,000 crore budget is a concern.
- **Digital Content Preservation:** A significant portion of research articles, even those with **Digital Object Identifiers (DOIs)**, face challenges as journals can be discontinued, making articles inaccessible.
  - o **Example:** In 2023, the journal *Heterocycles* ceased publication, making 17,000 articles temporarily inaccessible.
- **Limited Structural Reform:** ONOS mainly focuses on access but ignores wider issues like improving the publishing process, fostering innovation, and supporting Indian journals' global visibility.

## WAY FORWARD FOR THE ONOS INITIATIVES

- \* **Expert Negotiation Panels for Article Processing Charges (APCs):** The creation of subject-specific expert groups to negotiate with journal publishers will ensure fair and affordable APC rates.
- \* **Expansion to Private Institutions:** The government should evaluate the possibility of extending ONOS to private HEIs during the **proposed review in 2027**, enabling a more inclusive approach.
- \* **Encourage Open Access Transition:** Gradually increase the share of OA journals in ONOS while supporting global transformative OA models.
  - » Explore sustainable OA alternatives like **Diamond and Green OA**.
- \* **Promoting Active Use of the Platform:** Conduct targeted workshops to promote optimal use of ONOS resources and domestic repositories.
- \* **Continuous Negotiations:** The government should continue negotiating with publishers on an ongoing basis to ensure that the terms and pricing for journals remain favorable and sustainable.
- \* **Strengthen Indigenous Publishing Ecosystem:** Invest in the development of world-class Indian journals, focusing on infrastructure, editorial processes, and global visibility.
- \* **Sustained Funding and Monitoring:** Long-term success requires regular assessments to track usage rates and adjust funding as necessary.
- \* **Enhance Copyright Retention for Authors:** Implement a national 'rights retention' policy, **similar to the one used by Harvard**, to allow researchers to self-archive their work and retain control over its dissemination.

## CONCLUSION

While ONOS has the potential to transform India's research ecosystem, its success will depend on **efficient implementation and equitable access across institutions**. By aligning with global academic standards, this initiative can serve as a stepping stone for India's ambition to become a knowledge-driven economy.

## SAMPLE QUESTION

**Q)** How can the 'One Nation One Subscription' (ONOS) initiative enhance access to academic resources in India's higher education institutions? Discuss its potential impact on research and innovation **(10 marks) (150 words)**



# THE SYRIAN CRISIS

*Syllabus: GS II - Effect of policies and politics of developed and developing countries on India's interests*

## PYQ MAPPING

**Q)** "India's relations with Israel have, of late, acquired a depth and diversity, which cannot be rolled back." Discuss. (2018)

## INTRODUCTION

The Syrian Civil War, which erupted in 2011, has evolved into one of the most complex and devastating conflicts of the 21st century, involving multiple domestic and international actors. This protracted war has reshaped the Middle East, with profound geopolitical consequences.

## WHY IN NEWS

The **collapse of Bashar al-Assad's regime in Syria**, following a **two-week offensive led by Hayat Tahrir al-Sham (HTS)**, marks a significant shift in the region's power dynamics. The **fall of Damascus on December 8, 2024**, has led to the flight of Assad to Russia, further destabilizing the Syrian conflict.

## SHORT TAKES

- **Arab Spring:** Starting in 2010-2011, it was a wave of pro-democracy protests that challenged authoritarian regimes in the Middle East and North Africa, beginning with the toppling of Tunisia and Egypt's governments.
- **Hayat Tahrir al-Sham (HTS):**
  - **Abu Mohammad al-Joulani**, a former al-Qaeda lieutenant, founded **Jabhat al-Nusra** during the Syrian civil war (2012) as al-Qaeda's Syrian branch.
  - **Al Nusra was rebranded as Hayat Tahrir al-Sham (HTS) in 2017** and distanced itself from al-Qaeda while maintaining its Islamist ideology and established **control over Idlib**, creating a parallel

state.

- It shifted its focus to fighting the Assad regime to **avoid major U.S. military interventions**.
- On 8 December 2024, HTS played a **pivotal role in the fall of the Assad regime**, marking a significant turning point in Syria's conflict.

**Arab League:** Established in Cairo on March 22, 1945, initially with seven members to promote the various interests of these nations. Currently, the League has 22 member states from the Arab world including countries from North Africa and Middle East.

## OVERVIEW OF SYRIA

- ➔ **Location:** Syria is situated on the eastern coast of the Mediterranean Sea in southwestern Asia.
- ➔ **Boundaries:** Syria shares borders with **Turkey** to the north, **Iraq** to the east and southeast, **Jordan** to the south, and **Lebanon** and **Israel** to the southwest.
- ➔ **Capital:** Damascus (Dimashq) is the capital, located on the Barada River in an oasis at the base of Mount Qasioun (Qāsiyūn).



## HISTORY

- ➔ **Roman Syria (64 BCE–4th Century CE):** Syria became a Roman province under Pompey, with cities like **Antioch** and **Palmyra** flourishing as trade and cultural hubs.
- ➔ **Byzantine Era (4th–6th Centuries CE):** Syria remained a cultural centre under Byzantine rule.
- ➔ **Islamic Conquest (7th Century):** Khālīd ibn al-Walīd led the Muslim conquest of Syria, defeating the Byzantines at Yarmouk in 636CE.
- ➔ **Umayyad Era (661–750):** Mu'awiyah, the first Umayyad caliph, made **Damascus the capital**, establishing Syria as the flourishing core of the Umayyad Caliphate.

- ➔ **Abbasids and Fragmentation (750–12th Century):** Syria became a peripheral province under the Abbasids, later **contested by Seljuk Turks and Crusaders**.
- ➔ **Ayyubid and Mamluk Rule (12th- 15th century)**: Ayyubid rule unified Syria, **reclaimed Jerusalem (1187)**, and the Mamluks expelled Crusaders completely.
- ➔ **Ottoman Rule (16th–18th centuries)**: Syria became part of the Ottoman Empire in 1516, divided into provinces like Damascus and Aleppo.
- ➔ **French Occupation (1920–1946)**: France controlled Syria post-WWI under the **Sykes-Picot Agreement** in 1920.; nationalist resistance led to independence of Syria in 1946.
- ➔ **Post-Independence:**
  - After multiple military coups (1949-1954), the **Ba'ath Party gained influence**, particularly among army officers.
  - Brief union with Egypt (1958–1961) failed leading to **Syria's reassertion of independence in 1961**.
  - In **1963, the Ba'ath Party seized power**, marking a new phase in Syrian politics.
- ➔ **Assad Regime**
  - In 1970, **Hafez al-Assad** of the military wing of Ba'ath party established an authoritarian regime prioritising stability and reclaiming lost territories from Israel.
  - After Hafez's death in 2000, his son **Bashar al-Assad became president**, leading to civil war and his eventual overthrow on 8 December 2024.

### TIMELINE OF THE SYRIAN CONFLICT (2011-2024)

- ➔ **2011:**
  - Nationwide protests against Bashar al-Assad, **inspired by the Arab Spring**, escalate into a civil war.
  - The regime's brutal crackdown prompted **armed rebellion and military defections** which gained support from **Western, Arab, and Turkish allies**.
- ➔ **2012:**
  - The **Nusra Front** (Al-Qaeda's Syrian affiliate which later becomes HTS), rises with a bombing in Damascus, signalling the rise of **jihadi influence**.
  - Assad's intensified airstrikes on opposition areas lead to **widespread massacres** amidst rebel advances.
- ➔ **2013:**
  - **Hezbollah's intervention** secures **Assad's victory in Qusayr**, while a **chemical attack in eastern Ghouta** kills hundreds of civilians.
  - The conflict becomes increasingly sectarian and internationalised.
- ➔ **2014:**
  - The **Islamic State (ISIL)** declares a caliphate after **seizing Raqqa** and vast territories, while **rebels** face major urban **defeats like Homs**.
  - The **U.S. leads an anti-ISIL coalition**, launching airstrikes and supporting Kurdish forces.
- ➔ **2015:**
  - **Rebels capture Idlib** with foreign aid while **Russia's intervention** with airstrikes shifts the conflict in Assad's favour.
- ➔ **2016:**
  - **Turkey counters Kurdish advances** with a border operation, **Assad secures a pivotal victory in Aleppo** against the rebels.
  - The Nusra Front rebrands itself as **Hayat Tahrir al-Sham (HTS)** to distance itself from al-Qaeda and gain broader legitimacy.
- ➔ **2017:**
  - U.S.-backed Kurdish-led forces defeat ISIL in Raqqa while **Israel intensifies airstrikes** on Iranian and Hezbollah positions in Syria.



## ➤ 2018:

- o The **Syrian army retakes key rebel-held territories**, including eastern Ghouta and Deraa consolidating its control over much of Syria.

## ➤ 2019:

- o **ISIL loses its last Syrian stronghold**, while the U.S. retains troops to support Kurdish allies and prevent jihadist resurgence.

## ➤ 2020:

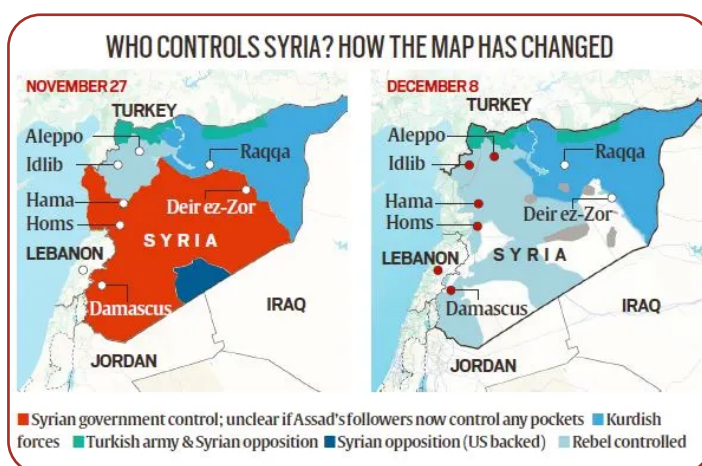
- o A Russia-backed offensive results in a ceasefire with Turkey, leaving **Assad entrenched in major cities, rebels in the northwest, and Kurds in the northeast.**

## ➤ 2023:

- o Assad's position is undermined as his allies are distracted by other regional conflicts, as
  - Russia focus on Ukraine
  - Iran's internal unrest
  - Hezbollah's engagement in clashes with Israel.

## ➤ 2024:

- o **Rebels capture Aleppo** and key cities, leading to Damascus's fall within 8 days, forcing **Assad to flee the country** marking the regime's collapse.
- o **Mohammed al-Bashir** appointed as the country's caretaker prime minister.



## KEY ACTORS IN THE SYRIAN CONFLICT

Actor	Role	Why Involved
<b>Assad Regime</b>	<ul style="list-style-type: none"> <li>Was the central authority <b>led by Bashar al-Assad</b>, suppressing rebel groups.</li> <li>Assad family belonged to <b>Alawite (a sect of Twelver Shiism)</b></li> <li>Overthrown on <b>8 December 2024</b></li> </ul>	Retain power, preserve a secular state, supported by Russia, Iran, and Hezbollah
<b>Russia</b>	Key <b>ally of Assad</b> , providing military support.	Geopolitical interests, maintain military presence, and support Assad's regime.
<b>Iran</b>	Major supporter of Assad, providing military assistance via <b>Revolutionary Guard Corps (IRGC)</b> and allied militias like <b>Hezbollah</b> .	Preserve influence in Syria, ensure a supply line to Hezbollah, and <b>counter Sunni opposition</b> .
<b>Hezbollah</b>	Lebanese militant group supporting Assad's forces.	Alliance with Iran, maintain a strong foothold in Syria for <b>operations against Israel</b> .
<b>Hayat Tahrir al-Sham (HTS)</b>	Dominant rebel group in Idlib, fighting Assad and other factions.	Establish an Islamist state, key role in <b>overthrowing Assad</b> in December 2024.
<b>Islamic State of Iraq and the Levant (ISIL)</b>	Jihadist group aiming to <b>establish a caliphate across Syria and Iraq</b> .	Expand territorial control and enforce strict Sharia law.
<b>Kurdish Forces (SDF, YPG, PYD)</b>	Kurdish-led militias seeking autonomy in northern Syria.	Establish an autonomous region, often in <b>conflict with the Syrian government and Turkey</b> .

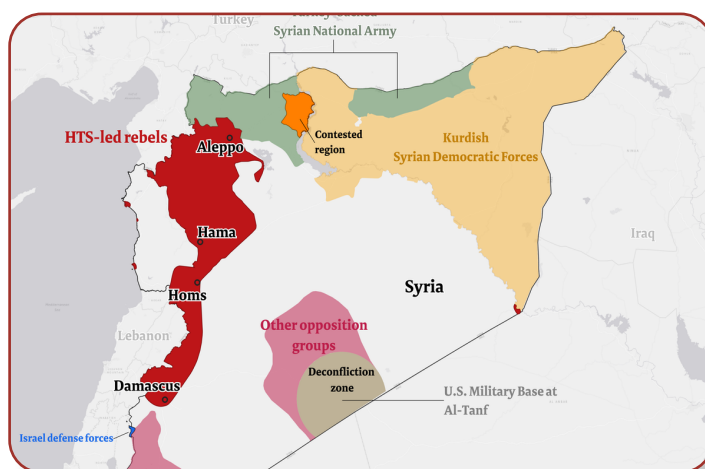
<b>Turkey</b>	Supported rebel groups, especially those opposing Kurdish forces.	<b>Prevent Kurdish autonomy</b> , secure its border, and influence Syria's political future.
<b>United States</b>	Supported opposition groups, <b>focused on defeating ISIL</b> and aiding Kurdish forces.	Weaken Assad's regime, counter ISIL, <b>limit Iranian influence</b> .
<b>Arab League</b>	Suspended Syria in 2011, reinstated in 2023 to encourage regional cooperation.	Promote <b>diplomatic engagement</b> and normalization of relations.
<b>Israel</b>	Conducted airstrikes <b>against Iranian and Hezbollah positions</b>	Prevent Iranian military bases near its borders and limit Hezbollah's capabilities.
<b>Other Regional Actors (Qatar, Saudi Arabia)</b>	Supported rebel groups to weaken Assad's regime.	<b>Promote Sunni-led governance</b> , counter Iranian influence.

## IMPACT

- ★ **End of Authoritarian Rule:** The fall of Bashar al-Assad's regime marks the end of decades of autocratic governance, opening the door for potential democratic reforms and national reconciliation.
- ★ **Power Vacuum and Fragmentation:** Assad's departure creates a power vacuum, leaving Syria fragmented with control divided among Kurdish forces, opposition groups, and extremist factions, hindering national unity.
- ★ **Humanitarian Crisis:** Millions of Syrians remain displaced, facing poverty and inadequate access to essential services.
- ★ **Shattered Economy:** Syria's economy is in ruins, demanding both immediate stabilization efforts and long-term rebuilding strategies to restore infrastructure and create sustainable growth.
- ★ **Geopolitical Shifts:** The fall of Assad reduces Iranian influence in Syria, offers opportunities for normalization with Israel, and signals a loss for Russia's strategic position in the region.
- ★ **Security Concerns:** The power vacuum could lead to the **resurgence of extremist groups like ISIS and al-Qaeda**, posing security threats to Syria and the wider region.

**Qaeda**, posing security threats to Syria and the wider region.

- ★ **Regional and Global Implications:** The transition could recalibrate regional power dynamics, with potential shifts in alliances, including the influence of Russia, Iran, and Turkey.
  - Additionally, China may seek to extend its Belt and Road Initiative during Syria's reconstruction.



## INDIA-SYRIA RELATIONS

### **Bilateral Relations:**

- India and Syria established diplomatic relations in 1950, and Nehru's visit in 1957 marked a significant milestone and **a street in Ummayad Square as 'Jawaharlal Nehru Street'** to honour the relationship.
- PM **Atal Bihari Vajpayee** visited Syria in **2003**; agreements on biotechnology and a Line of Credit (LoC) of \$25 million were signed.
- Recent visit by **MoS Shri V. Muraleedharan in 2023**; discussed education, capacity building, and

bilateral ties.

### **Mutual Support:**

- India supports Palestinian issues and Syria's **claim over the Golan Heights**.
- Syria consistently supported India's stance on Kashmir, opposing Pakistan's narrative and backed India's decision of **Article 370 Revocation**, terming it an "internal matter."

### **Principled Stand on Syrian Crisis:**

- India backs **UNSC Resolution 2254** and the UN



Special Envoy's step-by-step approach to resolving the conflict.

- o India advocates a non-military, Syrian-led political solution, maintaining its Embassy in Damascus even during the crisis

#### **Development and Humanitarian Assistance**

- o **COVID-19 Support (2020):** India provided 10 MT of medicines, the largest medical aid during the pandemic.
- o **Rice Donation (2021):** India gifted 2,000 MT of rice to alleviate food insecurity in Syria.
- o **Artificial Limb Camps:** Organised in 2019-2020 and 2022; over 1,000 Syrians benefited.
- o **Earthquake Relief (2023):** India sent 30 tonnes of relief material as a part of Operation Dost
  - Kerala donated ₹20 million for earthquake victims.

#### **Capacity Building and Education**

- o **Study in India Programme:** 1,500 seats offered to

Syrian students since 2017-18 for higher education in India.

- o **Indian Technical and Economic Cooperation Programme (ITEC) Training:** India provides 90 annual slots for Syrian professionals, including customised Arabic-language training for Syrian officers.
- o **Diplomatic Training:** 85 Syrian diplomats have received training in India since 2018.
- o **NexGen IT Centre:** Established in Damascus with Indian assistance to modernise Syria's IT infrastructure.

#### **Economic and Commercial**

- o **Tishreen Thermal Power Plant:** LoC of \$240 million extended in 2009.
- o **Hama Iron & Steel Plant:** Modernised under a \$25 million LoC.
- o **Oil Investments:** ONGC Videsh invested \$350 million in Syrian oil projects.

## **CONCLUSION**

As the war continues to wind down, Syria remains a fractured nation with its future uncertain, while the influence of regional and global powers continues to shape the country's trajectory. The long-term implications of the conflict will resonate throughout the region for years to come.

### **SAMPLE QUESTION**

**Q)** Discuss the key geopolitical factors influencing the Syrian conflict and its impact on the region and the world **(10 marks) (150 words)**

## PARDON POWERS

*Syllabus: GS II - Comparison of the Indian constitutional scheme with that of other countries.*

### PYQ MAPPING

**Q)** Instances of the President's delay in commuting death sentences has come under public debate as denial of justice. Should there be a time limit specified for the President to accept/reject such petitions? Analyse. (2014)

### WHY IN NEWS

US President **Joe Biden issued a broad pardon for his son, Hunter Biden**, on December 1, reversing his earlier position of non-interference in the legal proceedings against him. Hunter Biden was facing sentencing this month for **federal tax and gun convictions**.

### INTRODUCTION

The President's pardoning power or clemency serves as an **instrument of mercy** to correct judicial errors and uphold humanitarian values. This power, while significant in safeguarding individual rights, is subject to various constitutional and practical limitations to prevent its misuse.

### SHORT TAKES

- **Court Martial:** Refers to a judicial proceeding conducted by military or armed forces to try members of the military for breaches of military law.
- **Watergate scandal (1972–1974):** Involved a break-in at the Democratic National Committee headquarters in the Watergate complex and subsequent efforts by President Richard Nixon's administration to cover it up. The scandal led to Nixon's resignation, marking the first time a U.S. president stepped down from office.
- **Reformative Justice:** A justice system approach that focuses on rehabilitation and reintegration of offenders into society rather than solely on punishment.

### WHAT IS PARDONING POWER?

- ✦ Pardoning power, also usually referred to as **clemency**, is the authority granted to a head of state (such as a president or governor) to **forgive or lessen the punishment of individuals** convicted of crimes.
  - Clemency can include a pardon, commutation of sentence, remission of punishment, reprieve, or respite.
- ✦ It serves as a mechanism for mercy, correction of judicial errors, or to account for exceptional circumstances.

### COMPARISON OF PARDONING POWER IN INDIA AND US

BASIS	INDIA	US
<b>Constitutional basis</b>	<b>Article 72:</b> Empowers the President to grant pardons. <b>Article 161:</b> Pardoning power of Governor	<b>Article II, Section 2, Clause 1:</b> Grants president the power to issue pardons.
<b>Scope</b>	<b>President:</b> Offences under Union laws, state laws, court martial sentences, death penalties.	Cover all <b>federal offences</b> excluding impeachment cases.
<b>State level pardons</b>	Governors have the power to grant pardons for offences <b>except Court Martial or death sentences</b> .  (Note: this is based on the fact that while both Court martial and death sentences are explicitly mentioned in Article 72 for president, it is explicitly missing in Article 161 for governor. However, Supreme Court in 2021 had mentioned that Governor can pardon death row prisoners)	Only <b>state governors</b> can exercise similar powers for offences under state laws.

<b>Advice and Discretion</b>	The President exercises pardoning power on <b>advice of the cabinet</b> and has no independent discretion.	<b>Absolute discretion</b> in pardoning power.
<b>Judicial review</b>	Subjected to <b>limited judicial review</b>	<b>Not subjected</b> to judicial review.
<b>Historical context</b>	Modeled in the <b>British system</b> , with the president acting as a nominal head.	Rooted in <b>monarchical clemency powers</b> , emphasizing the president's strong executive authority.

## AMERICA

### **Historical Roots and Constitutional Origins of Pardon:**

- o The power to pardon has its origins in **English history**, dating back to the "prerogative of mercy" exercised by **King Ine of Wessex in the 7th century**.
- o It was incorporated into the U.S. Constitution during the **1787 Constitutional Convention**.
  - **Article II, Section 2, Clause 1:** Grants president the power to issue pardons.

### **Role of the Office of the Pardon Attorney:**

- o The Office of the Pardon Attorney under the Department of Justice **assists the President by processing pardon petitions**.
- o The process includes an initial review, an FBI background check, and a non-binding recommendation to the President.

### **Eligibility and Application Process:**

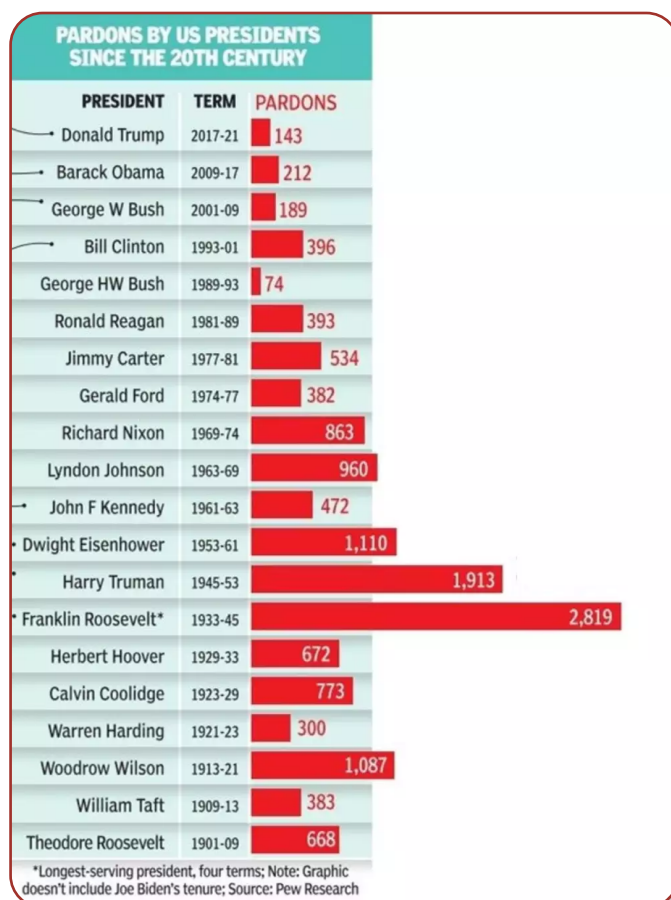
- o While the President can pardon at any point after a federal crime is committed, the Department of Justice **requires individuals to wait five years after release from confinement** to apply, demonstrating a responsible and law-abiding life.

### **Historical Context of Pardoning Power:**

- o The first U.S. President, **George Washington**, **granted a pardon in 1795** to leaders of the '**Whiskey Rebellion**,' who protested against a federal tax.
- o The highest number of clemency grants by a US President (3,796) came during **Franklin D Roosevelt's 12-year tenure** (he is also the longest serving US president), which coincided with World War II.
- o President **Bill Clinton** controversially **pardoned his**

**half-brother Roger** on his last day in office in 2001.

- o In 2020, **Donald Trump pardoned his son-in-law's father**.
- o On Dec. 12, 2024 President Biden granted pardons to 39 individuals and commuted 1,499 sentences, marking the **largest single-day clemency** grant in modern history, according to the White House.
  - Biden also **granted his son a sweeping pardon for tax and gun offences** and potential federal crimes from 2014 to 2024, despite earlier promises not to do so



## INDIA

### Constitutional Provisions

- o **Article 72:** It empowers the president to grant pardons to convicted persons.
- o **Article 161:** Pardoning power of the governor except in cases of court martial and death penalties.

### Mercy Petition Procedure under BNSS, 2023

- o **Section 473(1):** Limits the right to file mercy petitions to death row convicts, their legal heirs, or relatives.
  - Excludes third parties, such as legal aid organisations, potentially **disadvantageous to convicts** who lose contact with families or face financial and social vulnerabilities.
- o **Time limits:** Convicts must **file mercy petitions within 30 days** of the Superintendent of Jail's notification regarding the dismissal of their special leave petition by the Supreme Court or the High Court's confirmation of the death sentence.
  - **No time limits** are prescribed for the **President or Governor** to decide on mercy petitions.
- o **Section 473(7):** States that the President's decision on mercy petitions is final and **non-appealable**.
  - This potentially limits judicial oversight, **contrary to Supreme Court rulings** permitting limited review in certain cases.

### Types of Clemency of President

<b>Pardon</b>	Removes both the sentence and conviction completely.
<b>Commutation</b>	Substitution of one form of punishment for a lighter one
<b>Remission</b>	Reducing the period of sentence.
<b>Respite</b>	Awarding a lesser sentence due to some special fact.
<b>Reprieve</b>	Stay of a sentence for a temporary period

### Process

- o The President cannot independently exercise the power of pardon and must **act on the advice of the government**.
- o The mercy plea is forwarded to the Home Ministry, which seeks **advice from the Cabinet and the concerned state government**.
- o Based on the responses, the **Home Ministry formulates its advice** on behalf of the Council of

Ministers for the President's decision

- o The President can endorse the recommendation or send it back for reconsideration.
  - If the same recommendation is repeated, the **President must accept it**.

### Important Judgements

- o **Maru Ram v/s Union of India (1980)**
  - A five-judge Constitution Bench ruled that the **President must act on the Centre's advice** when granting a pardon.
  - The court will only **review the exercise of power under Article 72 in rare cases** of decisions that are "wholly irrelevant, irrational, discriminatory, or mala fide."
- o **Kehar Singh v/s Union of India (1988)**
  - The President's pardoning power is independent of the judiciary but **subject to review** for procedural fairness.
  - Judicial review focuses on constitutional principles and procedural compliance, **not the merits of the decision**.
  - The Court held that **precise guidelines for Article 72 powers are unnecessary**, as the power's wide scope must accommodate varied cases influenced by unique facts, state interests, and timing.
- o **Epuru Sudhakar v/s Government of Andhra Pradesh (2006)**
  - Limited judicial review of clemency powers is available to the Supreme Court and High Courts and can intervene in cases of
    - Lack of application of mind
    - Mala fide intentions
    - Irrelevance
    - Arbitrariness
    - Failure to consider relevant material.
- o **Shatrughan Chauhan v/s Union of India (2014)**
  - Court ruled **"undue, inordinate and unreasonable delay"** in dealing with a mercy petition amounted to torture **violates Article 21** (right to life).
  - Also constituted grounds for the commutation of a death sentence to life imprisonment.

### Examples



- o **Dhananjay Chatterjee (1994)** was convicted of rape and murder in 1990 and was hanged after 14 years when his mercy petition was rejected due to **delays in exercising clemency**.
- o **Govindasamy (2000)** was convicted of murdering his relatives in 1984 due to a land dispute and was later **pardoned** by the President after considering

the **lack of eyewitnesses**.

- o **Afzal Guru (2003)**, convicted for the 2001 Indian Parliament attack, had his mercy petition **rejected** by the President.

**Ajmal Kasab**, convicted for the 2008 Mumbai attacks, also had his mercy petition **rejected** by the President.

## PARDONING POWER: PROS AND CONS

### Pros

- ✓ **Humanitarian Aspect:** Clemency introduces an element of mercy into the justice system, allowing for **compassion in cases** where rigid application of the law may cause undue hardship.
- ✓ **Rectification of Errors:** It provides a mechanism to **correct judicial errors** or reconsider sentences in light of new evidence or mitigating factors.
- ✓ **Political Stability:** In politically sensitive cases, clemency can help heal divisions.
  - o **Example:** Gerald Ford's pardon of Richard Nixon to move past the **Watergate scandal**.
- ✓ **Flexibility in Justice:** Allows for tailored justice by **considering circumstances beyond the scope of judicial processes**, such as socio-economic factors or genuine repentance.

### Cons

- ✗ **Potential for Misuse:** Executive clemency may be influenced by **political bias or personal interests**, as highlighted in controversial decisions like Hunter Biden's.
- ✗ **Lack of Transparency:** Decisions are often opaque, and the reasoning behind clemency grants is not always disclosed, raising **concerns of accountability**.
- ✗ **Erosion of Rule of Law:** Overuse or misuse of clemency powers could **undermine public trust** in the judicial system and legal processes.

## WAY FORWARD

- ✧ **Transparency Mechanisms:** Introduce mandatory disclosure of the rationale and evidence considered in clemency decisions, as suggested in the **U.S. Protecting Our Democracy Act**.
- ✧ **Independent Advisory Body:** An independent committee or advisory board, comprising **legal experts and retired judges**, can assist the President in evaluating pardon petitions objectively.
- ✧ **Reformative Justice Focus:** Emphasise **rehabilitation over retribution**, expediting processes like parole, remission, and early release for deserving convicts based on good behaviour.
- ✧ **Judicial Oversight:** Allow limited judicial review to check procedural violations or mala fide intent without undermining the discretionary nature of clemency.
- ✧ **Public Awareness and Debate:** Encourage public discourse on clemency decisions to foster accountability while respecting the confidentiality of sensitive cases.
- ✧ **Strengthen Federal-State Coordination:** In India, improve cooperation between the Centre and states to avoid delays and conflicts, as seen in cases like **A.G. Perarivalan's release**.

## CONCLUSION

The President's pardoning power is a vital constitutional tool to ensure justice and provide relief in exceptional cases. **Transparency, accountability, and a balance between mercy and justice** are key to its effective use, reinforcing the Constitution's humanitarian spirit while upholding the rule of law.

## SAMPLE QUESTION

**Q)** Discuss the role of the President's pardoning powers in maintaining a balance between executive discretion and judicial authority **(10marks)(150 words)**

# MIGRATION

*Syllabus: GS I - Society; Migration*

## PYQ MAPPING

**Q)** Discuss the changes in the trends of labour migration within and outside India in the last four decades. **(2015)**

**Q)** The life cycle of a joint family depends on economic factors rather than social values. Discuss. **(2014)**



## WHY IN NEWS

The growing trend of Indian children migrating abroad has led to a shift in family dynamics, with elderly parents relying more on professional home nurses for care. While this provides physical support, it also creates emotional challenges, as parents struggle with loneliness and the absence of traditional family caregiving. This shift highlights the evolving nature of family structures in modern India.

## INTRODUCTION

India has seen a sharp rise in migration, driven by aspirations for better opportunities and global demand for skilled talent in fields like IT, healthcare, and engineering. While migration boosts remittances and economic growth, it also brings challenges like brain drain and shifts in family dynamics, highlighting the need to understand its societal and economic impact.

## PATTERN OF MIGRATION FROM INDIA

### ➔ Skilled Professional Migration

- o Indian professionals, especially in IT, engineering, healthcare, and finance, migrate to countries like the US, Canada, UK, and Australia for better job opportunities.
- The **US (2.7 million in 2020)**, along with Canada, Australia, and the UK, continues to attract a consistent influx of skilled professionals, particularly in the IT, healthcare, and education sectors.

### ➔ Student Migration

- o A significant number of Indian students move abroad, primarily to the US, UK, Canada, and Australia, seeking higher education and research opportunities.

### ➔ Low-Skilled Labor Migration

- o Workers from India migrate to Gulf countries (UAE, Saudi Arabia, Qatar) for employment in construction, hospitality, and domestic work

sectors.

- Countries like the **United Arab Emirates (UAE) remain a key destination for Indian workers, with 3.4 million migrants in 2020**, primarily employed in sectors such as construction, hospitality, and domestic services.

### ➔ Permanent Settlement Migration

- o Families and individuals migrate to countries like the US, Canada, and Australia through permanent residency or citizenship pathways, often citing better quality of life.

### ➔ Remittances and Circular Migration

- o Many migrants maintain ties with India by sending remittances and engaging in temporary or circular migration to support their families back home.

### ➔ Emerging Destinations

- o New destinations, such as European countries and East Asia, are attracting Indian talent with favorable migration policies and economic opportunities.

## IMPACT OF INTERNATIONAL MIGRATION

### ♣ Social Impacts

#### o Cultural Exchange:

- Migrants gain exposure to diverse cultures, ideas, and lifestyles, broadening their perspectives. Upon return, these experiences often lead to personal growth and the adoption of innovative practices at home.

#### o Impact on Families:

- Elderly parents feel lonely and abandoned as their children migrate, with virtual communication failing to replace physical presence.
- **Reliance on Professional Care:** Parents depend on home nurses for care, but miss the emotional support once provided by their children.
- **Adjustment to Modern Caregiving:** The shift from family care to professional services causes discomfort as parents struggle to adapt.
- **Empowerment of Women:**
  - Remittances from migrants often empower women left behind, granting them financial independence and decision-making authority over household matters, including their children's education.

### ♣ Economic Impacts

#### o Remittance Contributions:

- In 2020, Indian migrants sent **\$83.15 billion back home**, offering essential financial support to families and significantly boosting household incomes.

#### o Driving Investments and Growth:

- Many Indian expatriates reinvest their earnings in their homeland, creating jobs, stimulating businesses, and contributing to economic development.

#### o Increasing Domestic Spending:

- Remittances raise disposable incomes, enhancing consumption patterns, and strengthening local economies.

### ♣ Talent Migration: Challenges and Opportunities

- o **Challenges:** The emigration of skilled professionals, such as doctors and engineers, often leads to shortages in critical sectors, affecting domestic workforce capabilities.

- o **Opportunities:** Skilled migrants returning to India bring valuable expertise, global exposure, and innovative ideas. They fill skill gaps, mentor younger professionals, and often establish new ventures, contributing to economic progress.

- **Knowledge Transfer:** Migrants exposed to advanced technologies and methods abroad can share these insights back home, fostering innovation and boosting productivity across various industries.

## CHALLENGES FACED BY INTERNATIONAL MIGRANTS

### ▼ Exploitation and Unfair Labor Conditions

- o Migrants, particularly in low-skilled sectors, often face exploitation, including wage theft, passport confiscation, and unsafe working conditions.
- In 2022, Indian construction workers in Qatar protested against unpaid wages and poor living conditions linked to the 2022 FIFA World Cup infrastructure projects.

### ▼ Cultural Adaptation and Social Isolation:

- o Migrants often struggle to adapt to new cultures, languages, and social environments, which can result in isolation, loneliness, and mental health challenges.
- o The cultural disconnect can lead to difficulties in building social connections and feeling accepted in the host country.

### ▼ Exploitation and Deceptive Practices:

- o Fraudulent recruitment agencies often deceive Indian migrants by charging excessive fees, providing false job offers, and promising non-existent benefits.

- o Some illegal agencies engage in human trafficking, coercing or deceiving individuals into working in exploitative conditions.

- **In 2024, a significant operation led to the rescue of 100 Indian nationals from a Myawadi job scam in Myanmar.** These individuals had fallen victim to fraudulent recruitment agencies promising lucrative employment opportunities in Myanmar.

### ▼ Legal and Documentation Issues

- o Migrants often face difficulties in navigating legal and bureaucratic systems in foreign countries, especially when their visas or work permits are

restricted or not properly maintained.

- This can lead to issues like job insecurity, detention, or deportation.

### ▼ Health and Safety Concerns

- o Migrants working in physically demanding jobs, especially in construction or domestic work, are at risk of accidents and health issues. Lack of proper healthcare access or worker protection

laws in some countries further exacerbates these concerns.

### ▼ Discrimination and Racism

- o Migrants, especially those in lower-skilled jobs, may face discrimination or racism based on their nationality, race, or immigration status. This can lead to unequal treatment, exploitation, and challenges in finding stable, respectful employment.

## Strategies to Retain India's Youth and Skilled Workforce

- 🔧 **Increase Job Opportunities**
- 🔧 **Develop world-class infrastructure and innovation hubs**
- 🔧 **Align education and training programs with market demands**
- 🔧 **Promote Entrepreneurship**
- 🔧 **Implement Supportive Policies:** Offer tax benefits, social security schemes

## WAY FORWARD

### ✧ Cultural Orientation and Integration Programs:

- o Host countries should offer cultural orientation programs and social services to help Indian migrants integrate more effectively, reducing isolation and fostering better social inclusion and mental well-being.

### ✧ Combat Illegal Recruitment Agencies:

- o **Stronger Regulations and Monitoring:** Governments should enforce stricter laws and regularly monitor recruitment agencies to ensure they are licensed and accountable, with severe penalties for those involved in fraudulent activities.
- o **Public Awareness and Education:** Awareness campaigns should educate potential migrants on how to identify legitimate agencies, avoid scams, and report suspicious practices, helping to reduce their vulnerability to exploitation.

### ✧ Access to Legal Support and Documentation:

- o Governments should provide accessible legal

assistance to migrants for work permits, documentation issues, and disputes.

- o Streamlining immigration processes can also help reduce vulnerability to exploitation and ensure migrants' rights are protected.

### ✧ Improved Family Reunification Policies:

- o Policies that allow easier family reunification and ensure better communication between migrants and their families can help alleviate emotional distress and improve the overall well-being of Indian migrant workers.

### ✧ Combatting Discrimination and Promoting Equal Rights:

- o Host countries should implement anti-discrimination laws and raise awareness about migrants' rights and contributions.
  - The Indian government should use their Diplomatic relations to pressurize the host countries to strictly enforce the laws.

## CONCLUSION

In conclusion, while international migration offers economic benefits, it also brings challenges like exploitation and emotional distress. Strengthening regulations, ensuring fair treatment, and creating more domestic opportunities for youth and skilled workers will help retain talent and ensure migration continues to benefit both individuals and the nation.

## SAMPLE QUESTION

**Q)** While International migration from India has significantly contributed to socio-economic growth it also poses challenges. Discuss the key issues faced by Indian migrants and suggest measures to address these challenges. **(15 marks) (250 words)**



## KEY OUTCOMES OF MPC MEETING

*Syllabus: GS III - Indian Economy; Banking Sector & NBFCs*

### INTRODUCTION

The 52nd Monetary Policy Committee (MPC) meeting of the Reserve Bank of India (RBI) convened to review and decide on key monetary policy measures aimed at managing inflation and supporting economic stability.

### WHY IN NEWS

Recently, the Reserve Bank of India's (RBI) 52nd Monetary Policy Committee (MPC) meeting took place from December 4 to December 6, 2024. The decisions were announced on December 6, 2024.

### KEY TAKEAWAYS FROM RBI MPC MEETING

<b>Policy Rates and Stance</b>	<ul style="list-style-type: none"> <li><b>Repo Rate:</b> Held steady at 6.5% for the 11th consecutive meeting by a <b>4:2 majority vote</b>.</li> <li><b>Standing Deposit Facility (SDF)</b> and <b>Marginal Standing Facility (MSF):</b> Unchanged at 6.25% and 6.75%, respectively.</li> <li><b>Policy Stance:</b> Shifted to a <b>neutral stance</b>, moving away from the earlier "withdrawal of accommodation" position adopted during tightening phases.</li> </ul>
<b>Inflation Outlook</b>	<ul style="list-style-type: none"> <li><b>Current Fiscal Year (FY25):</b> Inflation forecast revised to 4.8%, considering persistent high food prices. <ul style="list-style-type: none"> <li>Q3 FY25: 5.7% (up from earlier projections).</li> <li>Q4 FY25: 4.5% (unchanged).</li> </ul> </li> <li>FY26 Outlook: <ul style="list-style-type: none"> <li>Q1 FY26: Inflation raised to 4.6% (from 4.3%).</li> <li>Q2 FY26: Projected at 4%, with risks balanced.</li> </ul> </li> <li>Inflationary concerns are largely driven by elevated food prices, which continue to burden consumers, despite cooling in some regions.</li> </ul>
<b>Growth Projections</b>	<p><b>GDP Forecast (FY25):</b> Revised down to <b>6.6%</b> (from 7.2%).</p> <ul style="list-style-type: none"> <li><b>Q3 FY25:</b> Growth lowered to <b>6.8%</b> (from 7.4%).</li> <li><b>Q4 FY25:</b> Revised to <b>7.2%</b> (from 7.4%).</li> <li><b>Q1 FY26:</b> Estimate reduced to <b>6.9%</b> (from 7.3%).</li> </ul> <p>RBI Governor Shaktikanta Das cited signs of economic recovery, supported by festive demand and improving rural activity, even as growth slows.</p>
<b>Cash Reserve Ratio (CRR)</b>	<b>Reduced by 50 basis points to 4%</b> , easing potential liquidity stress and supporting credit availability in the banking system.
<b>Special reforms for farmers</b>	<ul style="list-style-type: none"> <li><b>Collateral-Free Agricultural Loans:</b> <ul style="list-style-type: none"> <li>Limit increased from <b>Rs.1.6 lakh</b> to <b>Rs.2 lakh per borrower</b> to support small and marginal farmers, factoring in rising input costs and inflation.</li> </ul> </li> <li><b>New Communication Tool:</b> <ul style="list-style-type: none"> <li>Introduction of <b>RBI Podcasts</b> to enhance transparency and public engagement.</li> </ul> </li> </ul>
<b>Innovations in Financial Sector</b>	<ul style="list-style-type: none"> <li><b>MuleHunter.AI</b> <ul style="list-style-type: none"> <li><b>AI/ML Model for Fraud Prevention</b> developed by the <b>Reserve Bank Innovation Hub (RBIH)</b> in Bengaluru to identify and prevent misuse of mule accounts in digital transactions.</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>o <b>Mule accounts</b> are bank accounts used by criminals to launder money. These are accounts of unsuspecting individuals who are <b>tricked into allowing it to be used for illegal activities</b>. Criminals deposit stolen or illegally obtained funds into these accounts and then instruct the account holders to transfer the money to other accounts, making it difficult to trace the origin of the funds.</li> <li>• Announced the <b>formation of a committee to develop a Framework for Responsible and Ethical Enablement of AI (FREE-AI)</b> in the financial sector.</li> </ul>
<b>Enhancements to UPI and Small Finance Banks (SFBs)</b>	<ul style="list-style-type: none"> <li>• <b>Pre-Sanctioned Credit Lines via UPI:</b> <ul style="list-style-type: none"> <li>o The RBI now allows <b>Small Finance Banks (SFBs)</b> to offer pre-approved credit lines on UPI, making short-term credit accessible to new customers. Earlier, this feature was available only to Scheduled Commercial Banks..</li> </ul> </li> </ul>
<b>Measures for NRIs</b>	<ul style="list-style-type: none"> <li>• <b>Interest Rate Ceilings for FCNR(B) Deposits:</b> <ul style="list-style-type: none"> <li>o To attract capital inflows and stabilize the rupee:               <ul style="list-style-type: none"> <li>• <b>1–3 years:</b> Raised to ARR + 400 basis points for the respective currency.</li> <li>• <b>3–5 years:</b> Raised to ARR + 500 basis points for the respective currency.</li> </ul> </li> <li>• This relaxation will be available till March 31, 2025.</li> <li>o NRIs looking to open a fixed deposit account in India, can consider choosing an FCNR Account. This account enables them to deposit and save money earned in foreign currency while living abroad.</li> </ul> </li> </ul>
<b>Transition to a New Interest Rate Benchmark</b>	<ul style="list-style-type: none"> <li>• <b>Mumbai Interbank Outright Rate (MIBOR)</b> to be replaced with the <b>Secured Overnight Rupee Rate (SORR)</b> for enhanced transparency and alignment with global standards.           <ul style="list-style-type: none"> <li>o SORR will rely on secured money market transactions like <b>basket repo</b> and <b>Tri-party Repo (TREP)</b> (<i>explained below</i>).</li> <li>o The <b>Mumbai Interbank Offer Rate (MIBOR)</b> is the <b>benchmark interest rate</b> at which banks borrow funds from one another in the Indian interbank market.</li> </ul> </li> </ul>
<b>New Communication and Transparency Initiatives</b>	RBI aims to expand its engagement toolkit through podcasts, emphasizing public outreach and clear communication.

## GLOSSARY

### 1. Monetary Policy Committee (MPC)

- o It was established after a Memorandum of Understanding between the government and the RBI to implement an inflation-targeting framework.
- o The **RBI Act, 1934** was amended in 2016 (Section 45ZB) to create a statutory, institutionalized MPC.
  - **Function:** The MPC sets the benchmark policy rate (repo rate) to control inflation within the target range.
  - **Composition:** The six-member MPC includes:
    - o RBI Governor (Chairperson)
    - o RBI Deputy Governor in charge of monetary policy
    - o One official nominated by the RBI Board
    - o Three government representatives who are experts in the field of economics, finance or

monetary policy (external members serve 4-year terms)

- **Decision-making:** The MPC's decisions are based on a majority vote. In case of a tie, the RBI Governor casts the deciding vote. The decisions are binding on the RBI.

- o The **RBI's Monetary Policy Department (MPD)** supports the MPC in policy formulation.

### 2. Repo Rate

- o It's the rate at which the central bank of a country (Reserve Bank of India in case of India) lends money to commercial banks in the event of any shortfall of funds.
- o Repo rate is used by monetary authorities to control inflation.

### 3. Standing Deposit Facility (SDF)

- o The SDF is a tool used by the Reserve Bank of India (RBI) to absorb excess liquidity from banks without requiring collateral.
- o The SDF allows banks to deposit money with the RBI overnight, and the RBI pays interest on these deposits.

#### 4. Marginal standing facility (MSF)

- o It is a window for banks to borrow from the Reserve Bank of India in an emergency situation when interbank liquidity dries up completely.
- o Banks borrow from the central bank by pledging government securities at a rate higher than the repo rate under liquidity adjustment facility.

#### 5. Cash Reserve Ratio (CRR)

- o It is a monetary policy tool used by the Reserve Bank of India (RBI) to manage the money supply and inflation in the country.
- o The CRR is the percentage of a bank's total deposits that must be kept as cash reserves with the RBI.
- o No Interest is earned on the funds maintained as CRR by banks with the RBI.

#### 6. Small Finance Banks (SFBs)

- o They are specialized banks in India that focus on the financial needs of underserved and unserved population segments, such as small business units, micro and small businesses, and unorganized sector entities.
- o They are formed as public limited companies in the private sector, licenced under the **Banking Regulation Act of 1949**, and supervised by the **RBI Act of 1934**.
- o SFBs are subject to all RBI prudential rules and regulations that apply to existing commercial banks, including maintaining the **Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio**.
- o **Priority Sector Lending (PSL):** SFBs must extend 75% of the credit to sectors classified as priority sector lending by the Reserve Bank.

#### 7. FCNR (B) Account

- o Under this, **Non-Resident Indians (NRIs) and Persons of Indian Origin (PIOs)** can make these deposits in the currency of their country of residence and shall be held in that account in any one of the foreign currencies prescribed by RBI.
- o Income from the FCNR account is tax-free as the principal and interest amounts are exempted from taxation.
- o The rate of interest does not fluctuate in an FCNR

(Foreign Currency Non-Resident) account because of the deposits and withdrawals made in foreign currencies.

#### 8. The Alternative Reference Rate (ARR)

- o **Alternative Reference Rate (ARR)** is a benchmark interest rate designed to replace traditional **interbank offered rates (IBORs)**, such as the London Interbank Offered Rate (LIBOR)..
- o When banks run short of liquidity they lend to each other at rates called IBORs.
- o Recently, many IBORs like LIBORS are being phased out globally since many unscrupulous banks were found to manipulate the rates to their benefit.
- o **ARRs** are meant to address the limitations of IBORs, particularly concerns about their reliability, transparency, and susceptibility to manipulation.
- o **Key Characteristics of ARR:**
  - **Transaction-based:** ARR are grounded in actual market transactions, unlike IBORs, which were often based on estimates submitted by banks. This ensures greater transparency and reliability.
  - **Risk-free or nearly risk-free:** ARR are designed to reflect minimal credit risk. They often represent secured overnight lending rates like repo, making them more stable compared to term-based unsecured IBORs.
  - **Regulatory-driven adoption:** The transition to ARR is part of a global initiative led by financial regulators to create more robust and transparent financial benchmarks.
- o **Examples of Major ARR:**
  - **SOFR (Secured Overnight Financing Rate):** Used in the U.S., SOFR is based on the cost of borrowing cash overnight using U.S. Treasury securities as collateral.
- o **In India Modified Mumbai Interbank Forward Outright Rate (MMIFOR) and Secured Overnight Rupee Rate (SORR) are Alternative Reference Rates (ARRs)** are used as alternatives to LIBOR, but they serve different purposes
  - **Modified Mumbai Interbank Forward Outright Rate (MMIFOR)**
    - In India, **MMIFOR**, is a forward rate used for longer-term contracts.
    - The RBI directed banks and regulated

entities to transition away from LIBOR by July 1, 2023.

- a. The Mumbai Interbank Forward Outright Rate (MIFOR) was a domestic interest rate benchmark that was discontinued in June 2023.
- b. MIFOR was a combination of the London Interbank Offered Rate (LIBOR) and a forward premium based on Indian forex markets. The Reserve Bank of India (RBI) discontinued MIFOR after a rate-fixing scandal involving LIBOR.

o **Secured Overnight Rupee Rate (SRR)**

- It is a new interest rate benchmark introduced by the Reserve Bank of India (RBI), an overnight rate based on **secured borrowing in the money market**
- It's based on secured money market transactions in the market repo and tri-party


repo (TREP) segments. The RBI announced the SRR to develop a benchmark based on secured money markets unlike MMIFOR which is long-term and unsecured..

• **Basket Repo:**

- It is a type of repurchase agreement (repo) where a group or "basket" of securities, rather than a single security, is used as collateral for a short-term loan.

• **Tri-party Repo (TREP):**

- It is a repurchase agreement (repo) transaction in which a third party, typically a clearing bank or a central depository, acts as an intermediary to facilitate the transaction between the borrower and the lender.
- The clearing bank ensures the proper management of collateral, its safekeeping, and the settlement of the repo transaction.




**FORTUNE**  
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## WEEKLY DOSSIERS

### FLOATING VETIVER ISLANDS FOR WATER PURIFICATION IN COIMBATORE

**Ukkadam Big Tank in Coimbatore** is highly polluted, primarily due to sewage, leading to eutrophication and poor water quality. Traditional methods like sewage treatment plants were inadequate for long-term solutions.

**Objective:** To purify the water using Floating Treatment Wetlands (FTWs) with **vetiver plants**, which have high pollutant-removal efficiency, especially for nitrates, phosphates, and heavy metals.

#### Methodology

- ➔ **Collaboration:** Tamil Nadu Agricultural University (TNAU) and Tamil Nadu State Land Use Research Board (TNSLURB) developed buoyant hydroponic platforms with **vetiver plants**.
- Vetiver's deep root system is highly effective in absorbing pollutants, including nitrates, phosphates, and even heavy metals like chromium, which are prevalent in polluted water bodies.

#### Findings

- 🌀 Vetiver effectively absorbed pollutants, especially nitrates and phosphates, improving water quality.

#### Impact

- ♣ **Environmental:** Improved water quality, restored ecological health of the lake.
- ♣ **Social:** Potential for application in other lakes

#### Conclusion

The project demonstrates an innovative, sustainable solution for water pollution, combining traditional knowledge with modern technology for broader application.



- The design involved creating buoyant hydroponic floats, each capable of holding 84 vetiver plants, which were installed in the Ukkadam Big Tank as a pilot project.
- ➔ **Pilot Study:** Installed 10 floating platforms at Ukkadam Big Tank, tested for 16 months (Jan 2023-Mar 2024) for durability and performance.
- 🌀 Floating platforms with vetiver were resilient to harsh weather conditions and fluctuating water levels.

(Yercaud, Udthagamandalam, etc.).

- ♣ **Economic:** Vetiver also serves as a resource for handicrafts, creating income opportunities for local communities.

### TRANSFORMATIVE POTENTIAL OF WATER MICRODROPLETS IN NANOTECHNOLOGY AND AGRICULTURE

#### Introduction

A groundbreaking study led by Dr. Thalappil Pradeep at IIT Madras has revealed the remarkable **ability of water microdroplets to break down minerals into nanoparticles**. This discovery, published in *Science*, opens up transformative possibilities in nanotechnology, agriculture, and even the study of the origins of life.



## Background

### ➔ Microdroplets and Their Unique Properties

- Microdroplets are minuscule water particles, a thousandth the size of raindrops.
- Unlike bulk water, microdroplets facilitate faster chemical reactions due to their compact structure and high surface reactivity.

### ➔ Significance of the Study

- The study demonstrated how water microdroplets

can create nanoparticles from minerals like silica ( $\text{SiO}_2$ ) and alumina ( $\text{Al}_2\text{O}_3$ ).

- It showed how these droplets could act as carriers of electric charge and catalysts for exotic chemical reactions.

### ➔ Collaborative Effort

- Researchers from IIT Madras and the Jawaharlal Nehru Centre for Advanced Studies contributed to this path-breaking study.

## Implications for Agriculture

### 🌀 Silica Nanoparticles and Plant Growth

- Plants absorb silica nanoparticles to strengthen their structure and grow taller.
- Supplying soil with silica nanoparticles could boost agricultural productivity, particularly for silica-rich crops like rice.

### 🌀 Combating Desertification

- Infusing infertile or desertified soils with silica nanoparticles has the potential to transform them into productive farmland.

### 🌀 Green Revolution 2.0

- This technique could pioneer a sustainable method to address food security challenges by enhancing soil quality.

## Broader Impacts

### 🌀 Nanotechnology and Sustainable Practices

- This method of producing nanoparticles is energy-efficient and environmentally friendly compared to conventional techniques.

### 🌀 Water and Food Security

- By leveraging microdroplets, scientists could

tackle two critical global challenges—water scarcity and food insecurity.

### 🌀 Atmospheric Chemistry

- Investigating whether microdroplet-driven reactions occur naturally in atmospheric processes could provide new insights into Earth's ecosystems.

## Challenges and Future Research

### 🌟 Scaling Up

- Developing scalable methods to apply microdroplet technology to agriculture and industry.

### 🌟 Understanding Microdroplet Chemistry

- Further studies are needed to explore the exact chemical mechanisms at play.

### 🌟 Investigating Broader Applications

- Exploring applications in pharmaceuticals, energy storage, and other fields.

## Conclusion

The discovery of the ability of water microdroplets to break minerals into nanoparticles has vast implications for nanotechnology, agriculture, and sustainable development. By harnessing this phenomenon, researchers can revolutionize soil enhancement techniques, create energy-efficient nanoparticle production methods, and deepen our understanding of life's origins. This work exemplifies how fundamental science can unlock solutions to some of humanity's most pressing challenges.

## LEVERAGING SOCIAL MEDIA TO BUILD AWARENESS ABOUT URBAN BIODIVERSITY

Social media is becoming a powerful tool for promoting awareness and conservation of urban biodiversity. Content creators like Chandan Tiwary (@delhitrees), Ashwathi Jerome (@treesofcochin), and Akshay Onkar (@trees\_ofIndia) have pioneered efforts to connect people with nature by documenting and sharing the ecological, cultural, and historical significance of trees in their cities.

### Initiatives

#### ➔ Awareness Creation

- o Chandan Tiwary began documenting Delhi's trees through @delhitrees to explore the city's cultural history via trees, building a community of 5,000 followers.
- o Ashwathi Jerome started @treesofcochin to address the knowledge gap about Kochi's urban flora and its intersections with the city's history.
- o Akshay Onkar, an environmental science graduate, uses @trees\_ofIndia to share scientific information about tree species and their role in preserving ecosystems.

### Impact

#### 🌀 Educational Resource

- o Social media acts as a repository of knowledge about native trees, biodiversity, and their role in combating climate change.

#### 🌀 Promoting Climate Awareness

- o Observations of changing blooming patterns, such as the konna tree flowering earlier due to rising

### Challenges

#### ✧ Misinformation

- o Incorrect planting practices and unscientific ecological interventions are occasionally promoted online.

### Conclusion

Social media is a critical tool for creating environmental awareness, building public participation, and fostering a connection with nature. Content creators serve as catalysts for change, promoting conservation and enabling people to take an active role in safeguarding urban biodiversity.



#### ➔ Citizen Mobilization

- o During the COVID-19 lockdown, learning about nature provided mental relief, leading more people to connect with biodiversity via social media.
- o Tree documentation, virtual book clubs, and nature walks were amplified online, encouraging citizen participation in conservation efforts.

temperatures, highlight the impact of climate change.

#### 🌀 Bridging Gaps in Biodiversity Knowledge

- o These initiatives promote native species while addressing concerns about the balance between native and exotic tree species in urban areas. Tree documentation, virtual book clubs, and nature walks were amplified online, encouraging citizen participation in conservation efforts.
- o Replacing open natural ecosystems (ONEs) with woodland ecosystems can inadvertently harm biodiversity.

#### ✧ Lack of Flora Diversity

- o Cities often favor exotic species over native ones, impacting local ecosystems.



## ETHICS - CASE STUDY

**Q)** Lekshmi, a highly talented student with a keen interest in biology and medical sciences, aims to pursue a medical degree at a private college after narrowly missing the cutoff for government medical institutions. Her father fully supports her aspirations and is ready to fund the substantial fee for private medical education. However, her mother and grandfather oppose the decision, arguing that spending such a large amount on her education is unnecessary since she will eventually marry and join another family. They believe the money would be better saved for her marriage or used to support her brother, who, in their view, will take care of the family in the future.

- a. Assess the attitudinal differences between father and daughter on one side and grandfather and mother on the other side and its repercussions on society.
- b. How can Lekshmi persuade her family to allow her to become a doctor?

## ETHICS - EXAMPLES

1. **Cultural Sensitivity:** Since 2015, over 76% of Central institutions in India, including IITs, IIMs, and Central universities, have replaced colonial-era convocation attire with Indian or handloom alternatives, following UGC advisories promoting cultural pride and comfort.
2. **Medical Ethics:** Hospitals in Kolkata and Agartala have announced a halt to treating Bangladeshi patients, citing alleged disrespect to the Indian flag in Bangladesh, with private facilities reporting a significant drop in Bangladeshi medical tourists. This decision has sparked debate over balancing national sentiment with the humanitarian nature of medical services.
3. **Restorative Justice:** Sanganer's Shri Sampurnanand Khula Bandi Shivir in Jaipur, is the largest open-air prison in India where inmates live with minimal security, allowing them to engage in work and family life as part of a rehabilitation approach. However, a legal dispute over land allocation for a hospital threatens to disrupt this unique system.
4. **Digital Ethics:** The 'Chill Guy' meme, created by artist Philip Banks in October 2023, gained popularity for its laid-back persona. However, its success led to unauthorized brand use and a cryptocurrency token named after it, prompting him to take legal action over intellectual property rights and content misuse.
5. **Social Justice:** Gilead's twice-yearly HIV prevention shot, proven highly effective, has sparked concerns over access inequality as Latin American countries were excluded from the generic version deal. Experts and advocacy groups are urging broader access and the use of compulsory licenses to ensure availability in regions with increasing HIV cases.
6. **Lack of integrity:** Morris Samuel Christian was arrested for running a fake tribunal in Gujarat since 2019, deceiving clients in land disputes by impersonating a judge and passing fraudulent rulings, leading to charges of cheating and impersonation.
7. **Leadership:** Abhay Todkar, a polio survivor from Dahiwadi, Maharashtra, has led a transformative water conservation movement, impacting 64 drought-prone villages through innovative solutions like dam-building, tree planting, and community-driven initiatives.
8. **Ethics in governance:** Canada is launching a C\$250,000 ad campaign warning asylum-seekers about the challenges of claiming refuge, highlighting the strict qualifications required. The move reflects a shift in immigration policy as Canada faces a 260,000-case backlog and rising public concerns over housing and immigration.
9. **Resilience:** Benafsha Hashimi, an Afghan cricket player, escaped the Taliban's tyranny with her family, showing immense courage and determination to bring her entire team to safety in Australia. Despite facing profound loss and trauma, she remains committed to her passion for cricket and plans to pursue a sports management course in Canberra.



## MODEL ESSAY

*"The measure of intelligence is the ability to change"*

### Introduction

- Quote by Albert Einstein
- Intelligence is often seen as knowledge acquisition, but it also encompasses adaptability—the ability to embrace and thrive through change.

### Why Change Requires Intelligence

- **Cognitive Skills:** Analysing new situations and creating solutions.
- **Emotional Resilience:** Managing uncertainty and overcoming fear of the unknown.
- **Social Intelligence:** Collaborating and learning in evolving circumstances.

### Examples

- **Mahatma Gandhi:** Shifted strategies during India's freedom struggle, from petitions to civil disobedience.
- **Industrial Revolution:** Workers and industries adapting to mechanisation, leading to unprecedented economic growth.
- **COVID-19 Pandemic:** Rapid adoption of digital technologies in education and work; nations adapting public health strategies.

### Challenges in Embracing Change

- **Fear of the Unknown:** Uncertainty about outcomes leads to hesitation and anxiety.
- **Comfort Zone Bias:** People prefer stability and familiarity over taking risks.
- **Cultural and Social Barriers:** Traditional norms and societal expectations discourage adaptation. **Eg:** Resistance to gender equality reforms in patriarchal societies.
- **Economic Constraints:** Limited resources can hinder readiness to adopt changes.
- **Technological Barriers:** Lack of access to

or understanding of modern technologies creates disparities. **Eg:** Digital divide affecting adaptability to online education.

- **Rapid Pace of Change:** Adapting to constant innovation can overwhelm individuals and institutions. **Eg:** Struggles to stay updated with emerging technologies in AI

### How to Cultivate Adaptability

- **Develop a Growth Mindset:** Embrace challenges as opportunities to learn and grow.
- **Emphasise Continuous Learning:** Regularly update knowledge and skills through formal and informal education.
- **Enhance Emotional Intelligence:** Manage emotions during uncertainty and maintain resilience.
- **Build Problem-Solving Skills:** Approach new situations with critical thinking and creativity.
- **Stay Open to Feedback:** Accept constructive criticism and adjust accordingly.
- **Foster Effective Communication:** Express and exchange ideas clearly to navigate change collaboratively.

### Conclusion

- Intelligence transcends academic knowledge and is rooted in adaptability.
- Change is not just inevitable but essential for progress.

### Sample Quotes

- *The greater the obstacle, the more glory in overcoming it. - Moliere.*
- *He who has a why to live for can bear almost any how- Friedrich Nietzsche*
- *Out of difficulties, grow miracles - Jean de La Bruyère*

## MAINS JOT DOWN



### GS- II - JUDICIARY

- The Supreme Court has criticized the increasing **misuse of IPC Section 498A**, which addresses cruelty by a husband or his relatives towards a woman, often for personal vendettas.
  - » IPC has been replaced by the **Bharatiya Nyaya Sanhita (BNS)**, with **Section 85** of the BNS now covering this offense. Section 498A of the IPC prescribed a punishment of up to three years in prison, along with a fine.
- The Executive Chairman of NALSA highlighted that over **7.7 crore cases were resolved** through three **National Lok Adalats (NLA) organized by NALSA in 2024**.
  - » NLAs are one-day Lok Adalats held nationwide at regular intervals, covering all courts from the Supreme Court to Taluka levels.



### GS- I - MINERALS

- The Ministry of Mines has granted tungsten mining rights to Hindustan Zinc Limited, facing strong opposition from the public, environmentalists, and politicians due to concerns over the impact on the biodiversity-rich heritage area in Melur.
- **About Tungsten**
  - » **Appearance:** Shiny, silvery-white metal
  - » **Properties:** Highest melting point of all metals
  - » **Ores:** Scheelite and wolframite
  - » **Uses:** Filaments for light bulbs, arc-welding electrodes, tungsten carbide for 'painless' dental drills
  - » **Issues:** Not very energy-efficient, producing more heat than light.
  - » **As per Second Schedule of Mines and Minerals (Development and Regulation) Act 1957, Tungsten is a major mineral.**



### GS- II - INDIAN POLITY: LOCAL SELF GOVERNANCE

- The **National Panchayat Awards 2024** recognized **45 Panchayats** for their contributions to sustainable and inclusive rural development.
  - » Launched by the **Ministry of Panchayati Raj**, the awards align with 9 Localization of Sustainable Development Goals (LSDGs) themes, including poverty-free, child-friendly, women-friendly, and water-friendly Panchayats.
  - » The objective is to assess Panchayats' performance in achieving SDGs and promote competition among them.



### GS- II - GOVERNMENT POLICIES AND INTERVENTION

- The **Prime Minister recently launched LIC's Bima Sakhi Yojana**, a stipendiary scheme for women, offering Rs. 7,000/month in the 1st year, Rs. 6,000/month in the 2nd, and Rs. 5,000/month in the 3rd year. T
  - » The scheme aims to provide employment to 2 lakh women aged 18-70, with a minimum education of 10th grade.
  - » After training, participants can work as LIC agents and be considered for LIC Development Officer roles.



### GS- II - GOVERNANCE

- The **Amrit Gyaan Kosh Portal, launched on the iGOT platform by the Capacity Building Commission and Karmayogi Bharat**, aims to empower educators and improve public administration training in India.
  - » The portal curates best practices aligned with 15 SDGs of the 17 SDGs, covering policy themes like health, education, agriculture, and digital governance.



### GS- III - DEFENCE

- ➔ **INS Tushil (F 70), commissioned into the Indian Navy in Kaliningrad, Russia**, is an upgraded Krivak III-class frigate and the 7th ship of **Project 1135.6**.
  - » This multi-role stealth-guided missile frigate is armed with Brahmos missiles and powered by an advanced gas turbine propulsion system, enabling speeds over 30 knots.
  - » Project 1135.6 includes six ships, comprising Talwar and Teg class frigates built in Russia.



### GS- III - SCIENCE & TECHNOLOGY

- ➔ IIT Madras has become the first research organization globally to release an open-source brain mapping dataset called 'DHARANI.'
- ➔ **About DHARANI:**
  - » The largest open-access digital dataset of the human fetal brain.
  - » Created with custom-made Indian technology.
  - » Developed at one-tenth the cost of the US-based Allen Brain Atlas.
  - » Aims to advance neuroscience research and assist in brain-related health treatments.
  - » Could provide insights into neurological disorders like autism and other developmental conditions.

- ➔ Astronomers from the Indian Institute of Astrophysics have detected ultraviolet emissions from novae in the Andromeda galaxy for the first time using AstroSat data.
- ➔ **About Andromeda Galaxy (Messier 31):**
  - » The closest major galaxy to the Milky Way, about 2.5 million light-years away.
  - » A spiral galaxy located in the Andromeda constellation.
- ➔ **AstroSat Mission:**
  - » India's first dedicated astronomy mission to study celestial sources in X-ray, optical, and UV bands.
  - » Enables multi-wavelength observations of astronomical objects with a single satellite.



### GS- I - ART AND CULTURE

- ➔ The 1,300-year-old **Abathsahayeshwarar Temple**, located in Thukkatchi, Thanjavur district, Tamil Nadu, **received the 2024 UNESCO Asia-Pacific Award for Cultural Heritage Conservation**.
  - » Built by Kings Vikrama Chola and Kulothunga Chola, the temple was originally known as Vikrama Chozheeswaram and Kulothunga Chola Nallur.
  - » The temple's unique feature lies in the use of traditional Hindu temple construction techniques for its structural conservation.

## CHERRYPICKS OF THE WEEK

### CARBON-14 DIAMOND BATTERY

- It harnesses the radioactive decay of Carbon-14 (half-life: 5,700 years) to generate electricity.
- Encased in a diamond shell, it ensures durability and contains short-range radiation.
- Functioning like a solar panel, it captures fast-moving electrons within the diamond structure instead of photons to produce energy.

### DESERT VARNISH

- It is a thin, dark coating that forms on exposed rock surfaces in arid environments.
- It's a natural phenomenon that's made up of a mixture of clay minerals, iron and manganese oxides, and other components.
- Desert varnish can range in color from red to black, and can be found on canyon walls and boulders.

### COASTAL HARDENING

- Refers to human-made rigid structures like seawalls, harbors, and roads that alter natural landscapes, obstruct shoreline retreat, and hinder the movement of sandy beaches.
  - **Impacts of coastal hardening:** Decrease in biodiversity; Reduced ecosystem functioning like fisheries production; Changes in ecological community that can favor invasive species; Loss of sandy coastline etc.

### OMEGA BLOCKING

- A meteorological phenomenon where a high-pressure system is trapped between two low-pressure systems, resembling the Greek letter omega ( $\Omega$ ).
  - Causes extreme weather like heat waves, droughts, or floods, varying by location and season.
  - Difficult to predict, often leading to significant damage and loss of life.
  - Linked to events such as the 2011 Pakistan floods, 2008 Iran rainfall, and 2019 heatwaves in France and Germany.

### T+0 SETTLEMENT CYCLE

- A system where trade settlements occur on the same day as the transaction:
- Shares are credited to the investor's account on the trade date.
- For sell transactions, funds are credited the same day. It is currently optional and available to all investors.