

## 12th June 2024



















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## **GS II**

## 1. MHA relief for Goans who took Portuguese citizenship

#### Source: IE, Page 11

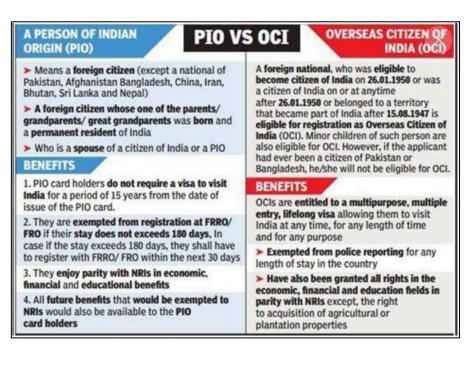
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Prelims: Citizenship Provisions, Overseas Citizens of India (OCI) Mains: Indian Constitution—Historical Underpinnings, Evolution, Features

**Context:** The Centre has simplified the process for Indian nationals from Goa, Daman, and Diu, who have acquired Portuguese nationality to obtain Indian visas, exit permissions, or OCI cards.

> The Ministry of External Affairs (MEA) had initially issued office an memorandum on 4 April, indicating acceptance of a 'revocation order' as a valid document for the OCI card. However, а subsequent corrigendum on 30 April that stated the memorandum was "under consideration" by the MHA,



leading to uncertainty among Goans whose Indian passports had been revoked.

• Instead of submitting a surrender certificate, these individuals can now provide a copy of their passport revocation order issued by the Regional Passport Officer as an alternative document in lieu of a surrender certificate, for granting Visa/Exit Permission on a valid Portuguese passport/OCI Card. This provision applies to those who certify that they obtained the Portuguese passport legally.

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## **GS III**

## 2. New portable atomic clock offers very accurate timekeeping at sea

Source: The Hindu, Page 7 Prelims: Atomic Clock - Optical, Uses Mains: Science and Technology- Developments and their Applications

**Context:** Researchers have built a portable optical atomic clock that can be used onboard ships.

Atomic Clocks:

- An atomic clock is a clock that measures time by monitoring the resonant frequency of atoms(usually cesium or rubidium) to keep time with extreme accuracy.
- Atomic clocks measure time using atoms like Cs-133, which absorb microwave radiation at a specific frequency (9,192,631,770 Hz) to define a second.
- Atomic clocks are crucial for the Global Positioning System (GPS), aiding navigation, emergency responses, and military operations.
- Despite their accuracy, traditional atomic clocks are bulky, power-intensive, fragile, and expensive, limiting their use to large research facilities.

## **Optical Atomic Clocks**:

- Optical atomic clocks offer higher accuracy by using lasers to stimulate atomic transitions, resulting in coherent light with precise properties.
- These clocks are more accurate due to higher operating frequencies and narrower linewidths.
- Strontium and ytterbium ions are commonly used in these clocks, with research ongoing in India.
- Recent advancements have led to the development of portable optical atomic clocks that are smaller, robust, and still highly accurate.
- A study published in Nature introduced a compact clock using molecular iodine, with miniaturized components such as a spectrometer, laser system, and frequency comb.
- **Maritime Applications**: These clocks can improve navigation, maritime communication, and monitoring of underwater seismic and volcanic activity.

## Future Aspects:

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- Prototypes named PICKLES, EPIC, and VIPER demonstrated high stability and lower long-term drift compared to existing atomic clocks.
- Despite environmental challenges, these clocks performed nearly as well as in laboratory conditions, highlighting their robustness.



## Editorial, Ideas and Opinions

## 3. A reboot at G7

#### Source: IE, Page 11

The article discusses Prime Minister Narendra Modi's participation in the G7 summit, highlighting opportunities and challenges for India's diplomacy and its engagement with global governance.

#### About G7

- The Group of Seven (G7) is a coalition of leading Western nations.
- It focuses on global governance issues, such as economic policy, security, and international development.
- The G7 summit in Fasano, Italy marks the group's 50th anniversary.



• The summit also addresses conflicts between the West and the Sino-Russian alliance.

## India's Opportunity at G7

- Reconnect and reboot relations with Western leaders during Modi's third term.
- Engage in discussions on global governance, artificial intelligence, food and energy security, and migration.
- Build deeper collaboration with the institutions of the "collective West".
- Leverage India's status as a major consumer of energy and leading producer of wheat to shape debates on food and energy security.

## India's Challenges at G7

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- Navigate the growing conflict between the West and the Sino-Russian alliance.
- Balance India's conflict with China and cooperation with Russia while expanding ties with the West.
- Address the consequences of the escalating conflict in Ukraine and the economic challenges posed by China.
- Manage internal and external perceptions of India's democratic health amidst Western scrutiny.







Way Forward

- Enhance India's proactive diplomacy in global governance and strategic-economic interests.
- Strengthen engagement with Mediterranean Europe, Arabia, and Africa through regional cooperation.
- Utilize opportunities to connect with non-Western leaders invited to the G7 summit.
- Formulate strategies to navigate the new dynamics of great power conflicts and shape outcomes in economic, political, and technological domains.

## 4. The social sciences, a shelter for the 'excluded' student

## Source: The Hindu, Page 8

The article highlights the urgent need to address exclusion in social sciences in India's higher education system. These measures are crucial for realizing India's vision of a developed nation by 2047.

**Issue of Exclusion in Social Sciences** 

- **Mismatch in Demand and Supply**: Transition to higher education is critical for economic growth but is hampered by an imbalance between the availability of seats and student demand.
- **Magnitude of Exclusion**: Excess seats in some disciplines and shortages in others lead to significant exclusion, particularly in social sciences.
- **Reservoir of Excluded**: Social sciences are becoming a large reservoir for students who are excluded from other courses, as evidenced by enrollment data.

**Reasons for Exclusion** 

- **Exclusion due to Excessive Competition**: Premier institutions have high competition due to their prestige, leading to focused elimination.
- **Exclusion due to Financial Factors**: Private institutions have high fees without regulatory constraints, and public institutions are increasing fees due to reduced government funding.
- **Exclusion based on Subjects and Courses**: Systemic issues cause an uneven distribution of course availability, with some regions offering generic and outdated programs.

Suggestions

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- **Improve Quality of Education**: Enhance teaching quality and update course content in social sciences.
- Focus on Quantity and Quality: Expand the number of seats available and simultaneously improve the quality of education.
- **Reduce Financial Exclusion**: Address financial barriers to make higher education more accessible.
- **Broaden Course Offerings**: Avoid narrow specialization by providing a wider range of courses within social sciences to meet diverse interests and market needs.





## 5. India's looming Financial crisis

Source: The Hindu, Page 8

The article discusses the perilous narrative and structural issues plaguing India's financial sector, highlighting the risks of rapid credit growth and an overvalued exchange rate. It also examines the chaotic state of the financial services industry and proposes solutions to avert an impending financial crisis.

The False Narrative of Indian Financial Sector

- **Illusion of Prosperity**: Rapid credit growth is misleadingly seen as economic prosperity but often leads to financial crises.
- "This Time is Different" Mantra: Policymakers claim India's digital infrastructure will spur growth, ignoring historical financial booms and busts.
- **Misdirection from Real Issues**: Applauding credit growth diverts attention from job deficits and human capital shortages.

**Issues with Financial Services Industry** 

- **Chaotic Structure**: A large and disordered financial sector with many providers, including dubious NBFCs and fintechs.
- **Unsustainable Lending**: Overemphasis on household lending, with a significant share of unsecured loans increasing financial instability.
- **High Household Debt Burden**: Indian household debt service-to-income ratio is among the highest globally, resembling pre-crisis levels in other countries.
- Addiction to Credit: Consumers, lured by easy loans and rewards, fall into debt traps, straining both themselves and the financial system.

Solutions

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- **Downsize Financial Sector**: Align the financial services industry's lending capacity with productive borrowing needs.
- Depreciate Rupee: Weaken the currency to boost exports and mitigate economic downturns.
- **Policy Realignment**: Shift focus from credit-driven growth to sustainable economic development, ensuring finance supports rather than leads growth.
- Address Job Shortage: Tackle the job deficit to prevent workforce regression into agriculture and reduce economic disparities.



## **InBrief**

Schengen Area

## 6. 12% hike in Schengen visa fee comes into effect

### Source: IE, Page 14

Context: Schengen visa fee for adults has increased to 90 euros from 80 euros, children between the age of 6 and 12 will now pay 45 euros instead of 40 euros.

### Schengen Visa

- It is an official document mandatory for some non-Europeans to travel to all the 27 countries which are part of the Schengen area.
- Non-European nationals are obliged to obtain a Schengen Visa to visit any of the 27 countries within the Schengen area.
- Once acquired, the Schengen Visa allows the • holder to cross borders of other member states without facing identity checks at each border point.

## 7. Scientists back new Alzheimer's drug: its benefits vs the risks

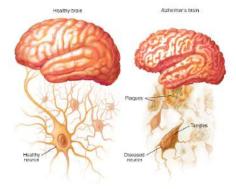
## Source: IE, Page 15

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Context: Donanemab, a new therapy for Alzheimer's disease developed by drug maker Eli Lilly, has received unanimous support from inde- pendent scientists advising the United States Food and Drug Administration (USFDA), bringing it a step closer to clinical use. **Alzheimer Disease** 

- Alzheimer's is a neurodegenerative and progressive disease that slowly destroys memory and other functions related to memory. It happens when plagues containing amyloid-beta peptides continue to accumulate in the brain.
- Memory loss or Dementia is the key symptom of Alzheimer's disease. Inability to recall recent events or discussions is the early symptom of the illness.













## 8. Japan India Maritime Exercise – 24 (JIMEX – 24) Commenced At Yokosuka Japan

#### Source: PIB

**Context:** Indian Navy's indigenous Stealth Frigate INS Shivalik arrived at Yokosuka, Japan to participate in the bilateral Japan – India Maritime Exercise 2024 (JIMEX 24).

#### JIMEX

- It is being conducted between India and Japan.
- This is the eighth edition of JIMEX, since its inception in 2012.
- The Indian Navy is being represented by INS Shivalik and the JMSDF is being represented by the Guided Missile Destroyer JS Yugiri. Integral helicopters from both navies will also participate in the joint exercise.

## 9. KVIC increases the pace of delivering government schemes to the people

#### Source: PIB

**Context:** Khadi and Village Industries Commission (KVIC) distributed margin money subsidy of Rs 299.25 crore to 7444 units across the country under the Prime Ministers' Employment Generation Programme. **Khadi and Village Industries Commission (KVIC)** 

- The Khadi and Village Industries Commission is a statutory body formed in April 1957 under the Act of Parliament, 'Khadi and Village Industries Commission Act of 1956'.
- The KVIC is charged with the planning, promotion, organisation and implementation of programs for the development of Khadi and other village industries in the rural areas in coordination with other agencies engaged in rural development wherever necessary.
- It is an apex organization under the Ministry of Micro, Small, and Medium Enterprises, with regard to khadi and village industries within India.

## 10. ATL Tinkerpreneur 2024: Atal Innovation Mission calls for applications

#### Source: PIB

**Context:** NITI Aayog announced the commencement of applications for the prestigious 'ATL Tinkerpreneur 2024' – a flagship summer boot camp under AIM's Atal Tinkering Labs program. **Atal Tinkering Labs (ATL)** 

- Atal Tinkering Labs (ATL) is a sub-mission under the Atal Innovation Mission to nurture an innovative mindset amongst high school students.
- This is an important government scheme administered under the NITI Aayog.
- AIM establishes ATLs in schools across the country with a vision to 'Cultivate one Million children in India as Neoteric Innovators'.









## **Daily Quiz**

1. Consider the following statements regarding Overseas Citizens of India (OCI):

- 1. OCI cardholders are entitled to multiple entries and a lifelong visa to visit India.
- 2. OCI cardholders can vote in Indian elections.
- 3. OCI cardholders are not allowed to purchase agricultural land in India.
- 4. OCI cardholders can hold government jobs in India.

Which of the statements given above are correct?

- A. 1 and 3 only  $\$
- B. 1, 2, and 4 only
- C. 1, 3, and 4 only
- D. 1, 2, 3, and 4

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## 2. Which of the following statements about atomic clocks is correct?

- A. Atomic clocks measure time based on the vibrations of hydrogen atoms, which are the most stable and accurate for timekeeping.
- B. The primary principle behind atomic clocks is the microwave signal that electrons emit when they change energy levels within an atom.
- C. The International System of Units (SI) second is currently defined based on the frequency of transitions in rubidium atoms.
- D. Atomic clocks are primarily used in astronomical observations and have limited applications in everyday technology.

3. Consider the following statements regarding the Group of Seven (G7):

- 1. India is a member of the G7.
- 2. China is not a member of the G7.
- 3. The European Union is a member of the G7.

How many of the statements given above are correct?

A. Only 1

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- B. Only 2
- C. All are correct.
- D. All are incorrect.

4. Which of the following statements about the findings of the 2021-22 All India Survey on Higher Education (AISHE) is correct?

- A. The gross enrollment ratio (GER) in higher education for females has significantly declined compared to the previous year.
- B. The survey indicates that the number of universities in India has decreased compared to the previous academic year.
- C. The 2021-22 AISHE reported an increase in the enrollment of students in distance education programs.
- D. The survey found that the majority of students enrolled in higher education belong to the Scheduled Castes (SC) category.





5. Which of the following statements about Non-Banking Financial Companies (NBFCs) in India is correct?

- A. NBFCs can accept demand deposits from the public and issue cheques drawn on themselves.
- B. NBFCs are regulated by the Securities and Exchange Board of India (SEBI) and follow the guidelines issued by it.
- C. NBFCs are required to maintain a Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) similar to commercial banks.\
- D. NBFCs are classified into different categories based on their activities, such as Asset Finance Companies, Investment Companies, and Infrastructure Finance Companies.

6. Consider the following statements regarding the Schengen Area:

- The Schengen Area comprises all member countries of the European Union (EU).
- 2. Citizens of Schengen member countries can travel without passports within the area.
- 3. The United Kingdom is part of the Schengen Area.
- 4. The Schengen Area allows for the implementation of a common visa policy for non-EU citizens.

Which of the statements given above are correct?

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

7. Alzheimer's disease, a neurodegenerative disorder, is primarily characterized by the accumulation of abnormal proteins in the brain. Which of the following protein aggregates are most commonly associated with Alzheimer's disease?

- A. Amylin and Islet Amyloid Polypeptide (IAPP)
- B. Beta-amyloid plaques and Tau tangles
- C. Alpha-synuclein and Lewy bodies
- D. Prion proteins and spongiform encephalopathies

8. Which of the following ships participated from the Indian Navy side in Japan India Maritime Exercise – 24 (JIMEX)?

- A. INS Satpura
- B. INS Sahyadiri
- C. INS Sumedha
- D. INS Shivalik

9. Consider the following statements regarding the Khadi and Village Industries Commission (KVIC):

- 1. KVIC is a statutory body under the Ministry of Commerce and Industry.
- 2. The primary objective of KVIC is to promote and develop khadi and village industries in rural areas.
- 3. KVIC is responsible for the implementation of the Prime Minister's Employment Generation Programme (PMEGP).
- 4. KVIC provides financial assistance to artisans and entrepreneurs through subsidies and loans.

How many of the statements given above are correct?

- A. Only 1
- B. Only 2
- C. Only 3
- D. All are correct

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## 10. Which of the following statements about Atal Tinkering Labs (ATL) is correct?

- A. Atal Tinkering Labs (ATL) is an initiative by the Ministry of Human Resource Development to promote scientific research at the university level.
- B. ATLs are established in schools across India to foster an environment of

innovation and creativity among students from Class 6 to Class 12.

- C. The primary focus of ATLs is to provide vocational training and employment opportunities to underprivileged youth.
- D. Atal Tinkering Labs (ATL) aims to promote traditional arts and crafts through modern technological interventions.



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## Solutions

## Answer 1: A

## Explanation:

- Statement 1 is correct: OCI cardholders are entitled to multiple entries and a lifelong visa to visit India.
- Statement 2 is incorrect: OCI cardholders do not have the right to vote in Indian elections.
- Statement 3 is correct: OCI cardholders are not allowed to purchase agricultural land in India.
- Statement 4 is incorrect: OCI cardholders are not permitted to hold government jobs in India.

Hence, Option A is correct.

## Answer 2: B

### Explanation:

- Option A is incorrect. While hydrogen masers are used in some atomic clocks, cesium and rubidium atoms are more commonly used due to their stability and accuracy. The cesium-133 atom, in particular, is the standard for defining the SI second.
- Option B is correct. The primary principle behind atomic clocks is the microwave signal emitted by electrons when they transition between different energy levels within an atom. This frequency is extremely stable and can be used to measure time with great precision.
- Option C is incorrect. The International System of Units (SI) second is defined based on the frequency of transitions in cesium-133 atoms, not rubidium.
- Option D is incorrect. Atomic clocks have numerous applications beyond astronomy, including in GPS systems,

telecommunications, and internet data transfer, where precise timekeeping is crucial.

Hence, Option B is correct.

## Answer 3: A

### **Explanation**:

- Statement 1 is incorrect: India is not a member of G7.
- Statement 2 is correct: China is not a member of G7.
- Statement 3 is incorrect: The European Union is not a member of G7.

Hence, Option A is correct.

## Answer 4: C

### Explanation:

- Option A is incorrect. The gross enrollment ratio (GER) for females in higher education has generally been improving over recent years. A significant decline would be an anomaly and contrary to the trends observed in recent surveys.
- Option B is incorrect. The number of universities in India has been increasing steadily. A decrease would be unusual and not in line with the expansion efforts in higher education infrastructure.
- Option C is correct. The 2021-22 AISHE reported an increase in the enrollment of students in distance education programs. This trend has been attributed to the growing acceptance and adoption of online and distance learning modes, especially accelerated by the COVID-19 pandemic.
- Option D is incorrect. While the enrollment of Scheduled Castes (SC) students in higher education has been



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increasing, they do not constitute the majority of students enrolled. The majority of students belong to other categories.

Hence, Option C is correct.

#### Answer 5: D

#### **Explanation:**

- Option A is incorrect. NBFCs cannot accept demand deposits, and they do not have the authority to issue cheques drawn on themselves. Only banks have the ability to accept demand deposits and issue cheques.
- Option B is incorrect. NBFCs are regulated by the Reserve Bank of India (RBI), not the Securities and Exchange Board of India (SEBI). RBI issues guidelines and regulations for NBFCs.
- Option C is incorrect. NBFCs are not required to maintain a Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) like commercial banks. They are, however, subject to different regulatory requirements set by the RBI.
- Option D is correct. NBFCs are classified • into different categories based on their activities, such as Asset Finance Companies (AFCs), Investment Companies (ICs), and Infrastructure Finance Companies (IFCs). This classification helps in identifying the functions specific and regulatory requirements of each type of NBFC.

Option D is correct.

#### Answer 6: A Explanation:

• Statement 1 is incorrect: Not all EU member countries are part of the Schengen Area. For example, Ireland and Croatia are EU members but not part of the Schengen Area, while non-EU countries like Norway, Iceland, Switzerland, and Liechtenstein are part of it.

- Statement 2 is correct: Citizens of Schengen member countries can travel within the area without the need for passports, though they may need to carry an identity document.
- Statement 3 is incorrect: The United Kingdom is not part of the Schengen Area, having opted out of it even before Brexit.
- Statement 4 is correct: The Schengen Area implements a common visa policy for non-EU citizens, allowing them to travel freely within the area once they have a Schengen visa.

Hence, Option A is correct.

#### Answer 7: B

#### **Explanation:**

- Alzheimer's disease is a progressive brain disorder that affects memory, thinking, and behavior.
- The two hallmark neuropathological features of Alzheimer's disease are:
  - Beta-amyloid plaques: These are abnormal clumps of protein fragments that accumulate between nerve cells in the brain.
  - Tau tangles: These are twisted fibers of another protein (Tau) that build up inside nerve cells, leading to their dysfunction and death.

Hence, Option B is correct.

#### Answer 8: D

#### Explanation:

• JIMEX 2024 is being conducted between India and Japan.



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- This is the eighth edition of JIMEX, since its inception in 2012.
- The Indian Navy is being represented by INS Shivalik and the JMSDF is being represented by the Guided Missile Destroyer JS Yugiri. Integral helicopters from both navies will also participate in the joint exercise.

Hence, Option D is correct.

#### Answer 9: C

#### **Explanation:**

- Statement 1 is incorrect: KVIC is a statutory body under the Ministry of Micro, Small, and Medium Enterprises (MSME), not the Ministry of Commerce and Industry.
- Statement 2 is correct: The primary objective of KVIC is to promote and develop khadi and village industries in rural areas, thereby providing employment and improving the rural economy.
- Statement 3 is correct: KVIC is responsible for the implementation of the Prime Minister's Employment Generation Programme (PMEGP), which aims to generate employment opportunities through the establishment of micro-enterprises.
- Statement 4 is correct: KVIC provides financial assistance to artisans and entrepreneurs through subsidies and loans to support the growth of khadi and village industries.

Hence, Option C is correct.

## Answer 10: B

#### Explanation:

• Option A is incorrect. ATL is not an initiative by the Ministry of Human Resource Development and does not focus

on university-level scientific research. It is a part of the Atal Innovation Mission under NITI Aayog.

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- Option B is correct. ATLs are indeed established in schools across India to foster an environment of innovation and creativity among students from Class 6 to Class 12. These labs are equipped with various tools and technologies to encourage hands-on learning and experimentation.
- Option C is incorrect. The primary focus of ATLs is not vocational training or employment but rather fostering a culture of innovation and problem-solving skills among school students.
- Option D is incorrect. While ATLs may involve technology, their primary aim is not the promotion of traditional arts and crafts, but rather encouraging young students to engage in innovative thinking and develop skills in STEM (Science, Technology, Engineering, and Mathematics).

Hence, option B is correct.

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