

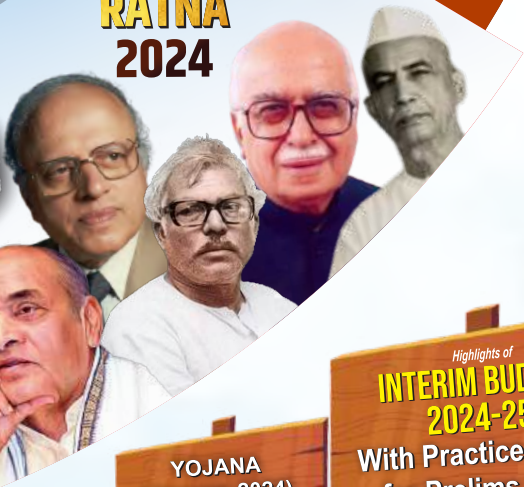
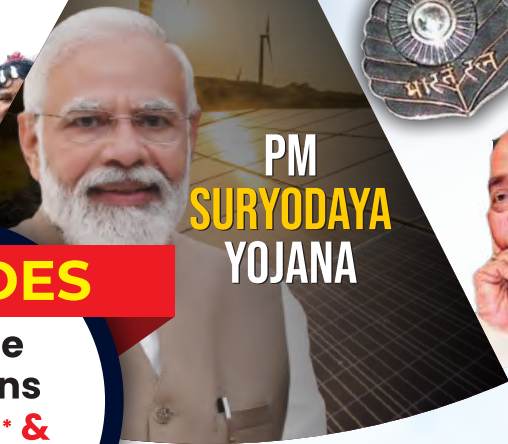
# CURRENT AFFAIRS

## MONTHLY MAGAZINE

For Integrated Preparation of  
CSE Prelims + Mains + Interview



ASER 2023 REPORT



**INCLUDES**

Practice Questions  
(Prelims\* & Mains) After each Topic

\*MCQs on Prelims 2023 Pattern



- Default Bail Provision, Bharat Ratna
- Registered Unrecognised Political Parties
- India-US Trade Policy Meet
- CCI study on Iron industry
- Electronic Soil
- Bharat Space Station
- Hepatitis A vaccine
- Prevalence of Anaemia in India

- Pradhan Mantri Suryodaya Yojana
- Global Risk Report 2024, ASER 2023
- New epaulettes for Admirals
- Khanjar Exercise, Desert Cyclone
- Vaccine for Cervical Cancer
- Tableaux in the Republic Day Parade
- PLI scheme for Auto industry
- Corruption Perceptions Index

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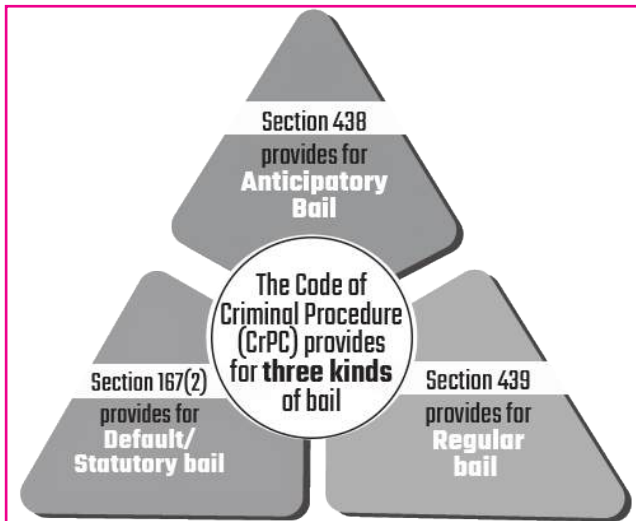
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## DEFAULT BAIL PROVISION

**Why in News:** Supreme Court held that **default bail cannot be claimed on the ground that the investigation is pending against other accused.**

### About Default Bail

- **Default bail, also known as statutory bail,** is a type of bail which accrues as a right to an accused detained in custody, when the police fail to or are unable to complete the investigation and file the chargesheet within the time frame stipulated under the law.



- When a person is arrested under any section of any act, there is an **obligation on the arresting authority to complete the investigation within a specified time.**
  - This period is mandatory, and not obligatory.
- The statutory time frame for completing the investigation of offences under the IPC, and for filing of the charge sheet varies depending on the gravity of the offence.
  - **For offences punishable with imprisonment up to 10 years,** the investigation must be completed within 60 days of arrest.
  - **For offences punishable with death, imprisonment for life, or imprisonment for more than 10 years,** the investigation must be completed within 90 days of arrest (excluding investigation/arrests made under special statutes).
  - **Exception:** Under **Narcotic Drugs and Psychotropic Substances Act,** this period is 180 days.

- Therefore, when a person is arrested and the police are not able to complete the investigation within the specified period, it is their default, and the **arrested person cannot be kept behind bars beyond this period.** This entitlement is called **default bail.**
- This is enshrined in Section 167(2) of the CrPC, where it is not possible for the police to complete an investigation in time.

### RITU CHHABRIA VS UOI CASE (2023) ON DEFAULT BAIL

The SC said that right of default bail under **Section 167(2)** of the CrPC is **not merely a statutory right,** but a **fundamental right** under **Article 21** of the Constitution.

The court also held that **incomplete charge sheets** filed by police would **not prevent** an accused from applying for default bail.

### Principles of Default bail

- It is a right, regardless of the nature of the crime.
- The stipulated period within which the charge sheet has to be filed **begins from the day the accused is remanded for the first time.**
- It includes **days spent in both police and judicial custody,** but not days spent in house-arrest.
- For an accused to be entitled to default bail, the accused must have been in custody during the entire statutory period for the investigation, and the accused must not have been released on bail during that period.
- **Requirement for the grant of statutory bail is that the right should be claimed by the person in custody.**
- If the charge sheet is not filed within the stipulated period, but there is no application for bail under Section 167(2), there is no automatic bail.
- Once the accused files an application for bail under Section 167(2), it is considered that he/she has enforced the right to be released on default bail.
- This **right only comes into place after the stipulated time limit for investigation has expired.**
- The default bail is **not liable to be cancelled even after the completion of the investigation and the submission of the charge sheet.**
- The default bail can be cancelled only on the grounds and considerations on which a regular bail can be cancelled.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQ**

- Q. With reference to default bail/statutory bail, consider the following statements:
1. It is a right, regardless of the nature of the crime.
  2. It is not liable to be cancelled even after the completion of the investigation and the submission of the charge sheet.
  3. It can be cancelled only on the grounds and considerations on which a regular bail can be cancelled.

4. It includes days spent in police and judicial custody, as well as in house-arrest.

How many of the above statements are correct?

- (a) Only one            (b) Only two  
(c) Only three        (d) All four

(c) Answer

**Descriptive Question**

Q. What do you understand by default bail? Explain the principles associated with default bail provisions. [10 Marks] [150 Words]

**SUB-CATEGORISATION OF SCs**

**Why in News:** Union government has formed a five-member committee of Secretaries, chaired by the Cabinet Secretary.

**Key details**

- Committee is to assess and find a fair way to distribute benefits, programs, and initiatives to the most disadvantaged communities among the 1,200 Scheduled Castes.

- These communities have been **overshadowed by those that are relatively more advanced and dominant.**
- The committee comprises the Secretaries of the Home Ministry, Law Ministry, Tribal Affairs Ministry, and Social Justice Ministry.

**Debate around Sub-Categorisation within SCs**



**Arguments in Favour**

The principal argument has been the graded inequalities among SC communities.	Even among the marginalised, there are communities that have lesser access to basic facilities.
As a result, the relatively more forward communities among them have managed to avail benefits consistently while crowding the more backward ones out	The solution, therefore, is to sub-categorise the communities and provide separate reservation to the more backward communities within the reservation meant for SCs

**Arguments Against**

Allotting separate reservations within the categories would not really address the root cause of the problem.	The idea behind sub-categorisation was to ensure representation at all levels.
If posts were reserved at higher levels, these most backward SCs would not have enough candidates to be considered for it in the first place.	Existing schemes and government benefits should first reach these sections before any sub-categorisation.
Also, legal experts have pointed out the necessity to have concrete data to support sub-categorisation.	In this context, they present the case of a caste census of each community and sub-community and their respective socio-economic data.
As per them, caste census can be the only empirical basis on which the government can justify sub-categorisation of benefits and how much extra share of benefits each community is in need of.	

## LEGALITY OF SUB-CATEGORISATION WITHIN CASTES

- In the last two decades, multiple States like Punjab, Bihar, and Tamil Nadu have tried to bring in reservation laws at the **State level in a bid to sub-categorise SCs**.
- However, all plans are held up in courts as the Supreme Court forms its larger Constitution Bench to decide the matter.

### E. V. Chinnaiah v State of Andhra Pradesh (2004)

Supreme Court held that once a community is included in the Presidential List for Scheduled Castes under Article 341 of the Constitution, they become part of a single larger class of people, casting a wide net for the purposes of reservation.

- That the **State did not have the legislative power to create sub-classifications** within this single class and **that such an action would violate the Right to Equality**.
- The Constitution has provided that **these lists can only be made by Parliament** and notified by the President.

In 2020, **Supreme Court in the Davinder Singh case unanimously ruled that sub-categorisation is constitutionally valid and suggested** a larger constitutional bench rule on the matter.

### Union Government's Stand

- In 2005 considered legal options for sub-categorisation of SCs.
- At the time, the erstwhile Attorney General of India had **opined that this could be possible but only if there was unimpeachable evidence to indicate a necessity**.
- National Commission for Scheduled Castes (NCSC) and the National Commission for Scheduled Tribes (NCST) had opined that a constitutional amendment was not necessary.
  - They said that **Article 16(4) of the Constitution already provided for States to create special laws for any backward classes** it felt was under-represented.
- They also argued that just setting aside a quota within the quota would not be enough.
- Making sure existing schemes and benefits reach them on priority basis was more urgent.

### Sub-Categorisation of SCs: Context Overview

- **The Indian PM had promised to look into the demand for sub-categorisation of SCs** in the run-up to the Telangana Assembly election.
- This issue was raised by the **Madiga community**.
- Madigas are the most populous of all SC communities in the Telangana.
- **Since 1994, the Madiga community has been pushing for the sub-categorization** of Scheduled Castes.
- This demand prompted the establishment of the **Justice P. Ramachandra Raju Commission** in 1996 and, subsequently, a National Commission in 2007.

- Both commissions concluded that there are possible ways to address this issue.
- Seven-judge Constitution Bench of the Supreme Court is set to start hearing on this issue
- The apex court will decide on the **question of whether sub-categorisation among SCs and Scheduled Tribes is at all permissible**.
- The Supreme Court hearing will be on the **constitutionality of sub-categorisation among SCs** for the purpose of breaking up the reservation in jobs and education set aside for them.
- On the other hand, the **government panel will be looking into other ways to take care** of their grievances.

## EXPECTED QUESTIONS FOR UPSC CSE

### Prelims MCQ

Q. Justice P. Ramachandra Raju Commission, sometimes seen in the news, is related to:

- Centre-State relations
- Blockchain Technology
- Review the Issues relating to the Coastal Regulation Zone
- Sub-Categorization of Scheduled Castes

(d) Answer

### Descriptive Questions

- Q1. Examine the rationale behind the ongoing debate on sub-categorization within Scheduled Castes (SCs) in India. How does this debate align with the broader discourse on affirmative action and inclusive development in the country? [15 Marks] [250 Words]
- Q2. Is subcategorization of Scheduled Castes a feasible idea to ensure effective reservation policy for Scheduled Castes (SCs)? [15 Marks] [250 Words]

## TENTH SCHEDULE

**Why in News:** Speaker of the Maharashtra Legislative Assembly has refused to disqualify 40 MLAs of the Eknath Shinde faction after recognising it as the real Shiv Sena.

### Key details

- In June 2022, a faction of the Shiv Sena headed by the sitting Chief Minister Eknath Shinde moved with 37 of the 55 MLAs and claimed to be the real Shiv Sena. It appointed Bharat Gogawale as its whip.
- This faction claimed that they were the original political party and that Sunil Prabhu of its faction will continue to be the whip.

- The Speaker has now recognised the Eknath Shinde faction as the real Shiv Sena and held the appointment of whip by this group as valid.
- This was based on the strength of members of the Shinde faction and the party's 1999 constitution.
- The Speaker based on this ruling refused to disqualify 40 MLAs of the Shinde faction.
- He also refused to disqualify 14 MLAs of the UBT group as the whip instructions from Bharat Gogawale could not be physically served on them.

### What is Defection?

- A defector is a person who gives up allegiance to one party in exchange for allegiance to another, changing sides in a way which is considered illegitimate by the first party.
- In India, the **defections of legislators during the 1960s and 70s** from their parent parties created political instability in many States, bringing down elected governments.
- Therefore, to ensure the stability of elected governments, **the 52nd constitutional amendment introduced the 'anti-defection' law through the Tenth Schedule in 1985.**

### About Anti-Defection Law

- The **52nd Amendment Act, 1985 provided for the disqualification of the members** of Parliament and state legislatures on the ground of defection from one political party to another.
- Through this amendment, a new Schedule i.e. **Schedule 10 was added to the Constitution.**
- Later, the **91st Amendment Act, 2003 made one change** in the provisions of the Tenth Schedule.
  - It omitted an exception provision i.e., disqualification on ground of defection not to apply in case of split.

### Disqualification

- **Members of Political Parties**
  - If he voluntarily gives up his membership of such political party; or
  - If he votes or abstains from voting in such House contrary to any direction issued by his political party without obtaining prior permission of such party.
- **Independent Members**
  - An independent member of a House (elected without being set up as a candidate by any political party) becomes disqualified to remain a member of

the House if he joins any political party after such election.

- **Nominated Members**

- A nominated member of a House becomes disqualified for being a member of the House if he joins any political party after the expiry of six months from the date on which he takes his seat in the House.

- **Exceptions**

- If a member goes out of his party as a result of a merger of the party with another party.
- A merger takes place when two-thirds of the members of the party have agreed to such merger.
- If a member, after being **elected as the presiding officer of the House, voluntarily gives up** the membership of his party or re-joins it after he ceases to hold that office.

### Deciding Authority

- Any question regarding disqualification arising out of defection is to be decided by the presiding officer of the House.
- In **Kihoto Hollohan case (1993)**, the Supreme Court held that the presiding officer, while deciding a question under the Tenth Schedule, **function as a tribunal.**
- Hence, his decision like that of any other tribunal, is subject to judicial review on the grounds of mala fides, perversity, etc.

### Benefits of Anti-Defection Law

- It provides for **greater stability** in the body politic by checking the propensity of legislators to change parties.
- It **facilitates democratic realignment** of parties in the legislature by way of merger of parties.
- It **reduces corruption** at the political level as well as non-developmental expenditure incurred on irregular elections.
- It gives a **clear-cut constitutional recognition to the existence of political parties.**

### Criticism of the Anti-Defection Law

- The law does not make a differentiation between dissent and defection. It curbs the legislator's right to dissent and freedom of conscience.
- It does not provide for the expulsion of a legislator from his party for his activities outside the legislature.
- Its discrimination between an independent member and a nominated member is contradictory. If the former joins a party, he is disqualified while the latter is allowed to do the same.

# Views of Various Committees on The Anti-Defection Law



## Dinesh Goswami Committee on Electoral Reforms (1990)

- Disqualification shall have limitation like:
  - For the members who **voluntarily give up the membership.**
  - For the members who **acts/votes contrary to the confidence of his party.**
  - The power of the decision of disqualification shall be to the **President/ Governor on the advice of the Election Commission.**



## Law Commission (170th Report, 1999)

- The provision of **split and mergers** shall be deleted as an exception from the provision of disqualification.
- **Pre-poll electoral fronts** should be treated as political parties under the anti-defection law.

AAYA RAM ... GAYA RAM



## Constitution Review Commission (2002)

- The defaulters who are not loyal towards their party **shall be barred from holding the public office** and also they **shall be eligible for getting any political post or any remuneration** of the party.
- The **voting cast by the defaulters shall be treated as invalid.**



### Important Judgements w.r.t. Anti-Defection Law

- In **Kihoto Hollohan case**, the Supreme Court held that the law is valid in all respects, except on the matter about judicial review, which was held to be unconstitutional.
- In **Shri Rajesh Verma v. Shri Mohammad Shahid Akhlaque case**, the court held that if the member of the party publicly opposes his original party and supports the other the party then this act deems to be a **resignation from the party.**

### About Three-test Formula

- The **Supreme Court in Sadiq Ali versus Election Commission of India (1971)**, laid down the three-test formula for determining which faction is to be recognised as the original political party by the Election Commission.
- **These are:**
  - Aim and objective of the party;

- Its affairs as per the party's constitution that reflect inner party democracy; and
- Majority in the legislative and organisation wings.

### EXPECTED QUESTIONS FOR UPSC CSE

#### Prelims MCQs

Q1. Consider the following:

1. 52<sup>nd</sup> Constitutional Amendment Act
2. 86<sup>th</sup> Constitutional Amendment Act
3. 91<sup>st</sup> Constitutional Amendment Act

How many of the above amendments are related to anti-defection?

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

Answer: (b)

Q2. Which of the following schedules in the Indian Constitution is related to Anti-defection law?

- (a) Eighth Schedule
- (b) Ninth Schedule
- (c) Tenth Schedule
- (d) Fifth Schedule

Answer: (c)

Q3. With reference to anti-defection provisions in the Constitution, consider the following statements:

1. The 52nd Constitutional Amendment Act omitted an exception provision i.e., disqualification on ground of defection not to apply in case of split
2. Through the 91st Constitutional Amendment Act, the Tenth Schedule was added to the Constitution.

Which of the statements given above is/are correct?

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

Answer: (d)

**Descriptive Question**

Q. Elaborate the provision of Anti Defection Law and evaluate its efficacy? [ 15 Marks] [250 Words]

**REGISTERED UNRECOGNISED POLITICAL PARTIES**

**Why in News:** Recently, the Election Commission of India has introduced new rules for the allocation of symbols to Registered Unrecognised Political Parties (RUPPs).

**About RUPPs**


- RUPPs, or Registered Unrecognised Political Parties, include newly registered parties, those not meeting the vote percentage for state party status, or those never contesting elections post-registration.
- **Note:** Only 30% of RUPPs participated in the 2019 Lok Sabha election.
- RUPPs are governed by the **Representation of the People Act (RPA) 1951**.
- **Common symbols are provided** to RUPPs based upon an undertaking that they would put up “at least 5% of

total candidates with regard to said Legislative Assembly election of a State”.


**What are New Rules?**

- Registered Unrecognised Political Parties (RUPPs) must provide:
  - **audited accounts** of the last three financial years
  - **expenditure statements** of the last two elections
  - authorized office-bearer’s **signature** for symbol allocation
- Once these details are furnished, RUPPs become eligible for the concession of common symbol allotment, allocated as per the Election Symbols (Reservation & Allotment) Order, 1968.
- New rules are effective from January 11, 2024.




- 

**Lack of visibility and credibility:**

  - Due to their **limited resources, reach and recognition**, RUPP find it difficult to create awareness and attract support among the voters.
- 

**Lack of representation and participation:**

  - Due to their **low vote share and seat share**, RUPP have negligible or no representation in the legislatures and the government. They also have **limited or no participation in the policy-making and governance** processes. They are often excluded from the consultations, deliberations and debates on various issues of public interest.
- 

**Lack of accountability and transparency:**

  - Due to their **weak organisational structure, internal democracy and financial management**, RUPP faces issues of accountability and transparency in their functioning.

**How are RUPP different from Recognised Parties?**

- ✓ RUPP are those parties that are either **newly registered** or have not secured enough percentage of votes or seats in the assembly or general elections to become a state or national party or have never contested elections since being registered.
- ✓ Such parties do **not enjoy all the benefits and privileges** extended to the recognised parties by the ECI.

**Conclusion**

RUPP are an **integral part of Indian democracy** as they represent the diverse voices and views of the people. They also contribute to the vibrancy and dynamism of the political system.

Therefore, it is necessary to improve their role and performance by strengthening their registration and regulation process, enhancing their benefits and privileges, encouraging their coalition and cooperation, and promoting their internal democracy and governance.

### EXPECTED QUESTIONS FOR UPSC CSE

#### Prelims MCQs

Q1. Consider the following:

1. Newly registered parties
2. Parties that do not meet the vote percentage for state party status
3. Parties that never contest elections post-registration

How many of the above can be categorized as Registered Unrecognised Political Parties?

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

Answer: (c)

Q2. Consider the following statements with reference to Registered Unrecognised Political Parties (RUPPs):

1. They are governed by the Representation of the People Act (RPA) of 1951.
2. More than 50% of RUPPs participated in the 2019 Lok Sabha election.

Which of the statements given above is/are correct?

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

Answer: (a)

#### Descriptive Question

Q. What are registered unrecognized political parties, also explain the challenges faced by such parties. [15 Marks] [250 Words]

## ALL INDIA CONFERENCE OF DIRECTOR GENERALS

**Why in News:** The Prime Minister of India attended the 58th All India Conference of Director Generals/Inspector Generals of Police in Jaipur, Rajasthan.

### Key details

- It was a three-day being held in hybrid mode with DGPs (Director general of police), IGPs (Inspector-General of Police) and Chiefs of Central Police Organisations.
- A **wide range of policing and internal security issues** including Cyber Crime, Technology in Policing, Counter Terrorism challenges, Left Wing Extremism, and Prison Reforms were discussed at the conference.
- Deliberations on the road map for **implementation of the new Criminal Laws** with the spirit of ‘**citizen first, dignity first and justice first**’, also took place.

### Key Highlights of the PM’s Address

- **Paradigm Shift in Criminal Justice**
  - Significant shift brought about by the enactment of new criminal laws, advocating for a justice system focused on citizen dignity, rights, and justice first, moving away from punitive measures to data-driven approaches.
- **Positive Image of Police**
  - The need to **enhance the positive perception of the police** among citizens, suggesting the use of social media at the grassroots level to disseminate positive information and messages.
- **Citizen-Police Connect**
  - He **advocated for organizing sports events** as a means to strengthen the bond between citizens and the police force.
- **Transformation of Police Force**
  - He encouraged the Indian police to **evolve into a modern, world-class force in alignment with India’s rising global profile**, aiming to contribute to the vision of a developed India by 2047.
- **Ensure Women Safety**
  - He exhorted police to focus on women safety by ensuring that women could work fearlessly ‘**kabhi bhi aur kahin bhi**’.



# CHAHAL'S PERSPECTIVE

on

# POLICE REFORMS

Issues Associated with the Police Forces	What are the Recommendations for Police Reforms?
<p><b>Custodial Deaths</b></p> <p>Custodial deaths refer to fatalities that occur while a person is in the custody of the police or other law enforcement agencies.</p>	<p><b>Police Complaint Authority</b></p> <ul style="list-style-type: none"> <li>• In the <b>Prakash Singh case</b>, Supreme Court directed to establish the Police Complaint Authority in all the states of India.</li> <li>• The <b>Police Complaint Authority</b> is authorized to investigate matters relating to any kind of misconduct by police of, below the rank of Superintendent of Police.</li> </ul>
<p><b>Excessive Use of Force</b></p> <p>Instances of excessive force by the police have been reported, leading to injuries and fatalities.</p>	<p><b>National Police Commission Recommendations</b></p> <p>The <b>National Police Commission (1977-1981)</b> in India made recommendations for police reforms, emphasizing the need for functional autonomy and accountability.</p>
<p><b>Corruption</b></p> <ul style="list-style-type: none"> <li>• Corruption within the police force, including bribery, and other forms of misconduct, undermines public trust.</li> <li>• The combination of increased profitability and law enforcement discretion tempts officers to engage in corrupt practices.</li> </ul>	<p><b>Ribeiro Committee</b></p> <p>The <b>Rebeiro Committee</b> endorsed major recommendations of <b>National Police Commission (1978-82)</b> with certain modifications.</p>
<p><b>Foreign Marriage Act (FMA)</b></p> <ul style="list-style-type: none"> <li>• There is a significant trust deficit between the police and the community, affecting cooperation and information sharing.</li> <li>• High-profile cases of police misconduct contribute to public skepticism and mistrust.</li> </ul>	<p><b>Malimath Committee on Reforms in the Criminal Justice System</b></p> <p>Made <b>158 recommendations</b> including that of setting up a central law enforcement agency.</p>
<p><b>Extra-judicial killing by Police</b></p> <ul style="list-style-type: none"> <li>• There have been many instances of extrajudicial killings by the police in the name of self-defence, which is commonly known as 'encounter.'</li> <li>• There are no enigmatic provisions or statute in Indian law that legalizes encounter killing.</li> </ul>	<p><b>Model Police Act</b></p> <ul style="list-style-type: none"> <li>• In accordance with the <b>Model Police Act, 2006</b>, each state must establish an authority made up of retired High Court judges, civil society members, retired police officers, and public administrators from another state.</li> <li>• It focused on the functional autonomy of the police agency, encouraged professionalism and made accountability paramount for both performance and conduct.</li> </ul>

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. Consider the following:

1. Ribero Committee
2. Subramanian Committee
3. Malimath Committee

How many of the above committees are related to police reforms?

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

Answer: (b) (1 and 3)

Q2. Consider the following statements:

1. In accordance with the Model Police Act, 2006, each state must establish an authority made up of retired High Court judges, civil society members, retired police officers, and public administrators from another state.
2. It focused on the functional autonomy of the police agency, encouraged professionalism and made accountability paramount for both performance and conduct.

Which of the statements given above is/are correct?

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

Answer: (c)

**Descriptive Question**

Q. Explain the police reforms needed in order to achieve the goal of SMART police. [10 Marks] [150 Words]

**BHARATIYA NYAY SANHITA (BNS) FOR HIT-AND-RUN CASES**

**Why in News:** Truck, bus, and tanker drivers across India were protesting against the newly implemented Bharatiya Nyay Sanhita (BNS) for hit-and-run cases.

**Hit and Run Case**

A hit-and-run case is a situation where a person **involved in a road accident** leaves the scene **without stopping to identify themselves or render assistance** to the injured parties.



**Bharatiya Nyay Sanhita provisions for hit-and-run cases**

- BNS has replaced the colonial-era Indian Penal Code and imposes stringent regulations, including up to **10 years of imprisonment** or a **fine of Rs 7 lakh (under Section 106 of the act)** for drivers causing serious accidents who fail to inform the authorities.
- The increase in **sentence duration to 10 years is based on the Supreme Court’s recommendations** for stricter actions against reckless drivers who flee accident scenes.

*For details about BNS, refer our December 2023 Monthly Magazine, Article titled “New Criminal Law Bills passed by Parliament” on Page no.1*

**Reasons for protest**

- **Truck drivers fear additional criminal liability under Section 106**, leading to a call for a strike.

**Way Forward**

- The government held talks with the All-India Motor Transport Congress, and plans to **implement BNS only after consulting**.
- The emphasis is on the **need for a comprehensive accident prevention** policy covering imprisonment, compensation, and safety.

**DATA ON ROAD ACCIDENTS & DEATHS**

Source: ‘Road Accidents in India 2022’ report by MoRTH

- 4,61,312 road accidents occurred in 2022, leading to 1,68,491 fatalities and 4,43,366 people injured.
  - This data represents an 11.9% year-on-year increase in accidents.
- 32.9% of accidents took place on National Highways and Expressways, 23.1% on State Highways, and the remaining 43.9% on other roads.
- Young adults (18 - 45 years) accounted for 66.5% of the victims in 2022.
  - People in the working age group (18 – 60 years) constituted 83.4% of the total road accident fatalities.
- Rural (around 68%) and Urban (around 32%) accidents
- Two-wheeler riders had the highest share in total fatalities (44.5%) in 2022
  - Pedestrian road-users were the second-largest group.
- State with highest number of road accidents: Tamil Nadu (13.9%) > Madhya Pradesh (11.8%)
- State with highest number of fatalities: Uttar Pradesh (13.4%) > Tamil Nadu (10.6%)
- Global Comparison: India has the highest number of total persons killed due to road accidents, followed by China and the United States.

INITIATIVES RELATED TO ROAD SAFETY	
Global	India
<ul style="list-style-type: none"> <li>• Brasilia Declaration on Road Safety (2015)</li> <li>• Decade of Action for Road Safety 2021-2030</li> <li>• The International Road Assessment Programme (iRAP)</li> </ul>	<ul style="list-style-type: none"> <li>• Motor Vehicles Amendment Act, 2019</li> <li>• The Carriage by Road Act, 2007</li> <li>• The Control of National Highways (Land and Traffic) Act, 2000</li> <li>• National Highways Authority of India Act, 1998</li> </ul>

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

**Q. Consider the following statements:**

1. The Bharatiya Nyay Sanhita has removed all stringent regulations under the Indian Penal Code for drivers causing serious accidents.
2. The stringent penal actions of jail term have been reduced to payment of fines.

Which of the statements given above is/are correct?

(a) 1 only (b) 2 only

(c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (d)

## SUPREME COURT LEGAL SERVICES COMMITTEE

**Why in News:** Supreme Court judge **Justice BR Gavai** has been nominated as the Chairman of the Supreme Court Legal Services Committee (SCLSC), succeeding Justice Sanjiv Khanna.

**About SCLSC**

- **Supreme Court Legal Services Committee (SCLSC) was established under Section 3A** of the Legal Services Authorities Act, 1987, to provide “free and competent legal services to the weaker sections of society.”
- It composed of a **chairperson** and **nine members** nominated by the **Chief Justice of India (CJI)**.
- It has the **authority to appoint officers and employees** as prescribed by the Centre, in consultation with the CJI.

**Constitutional provisions**

- ✓ **Article 39A** emphasizes the need for accessible justice, ensuring free legal aid for the poor and weaker sections of society
- ✓ **Articles 14 and 22(1):** Promoting equality and informed rights for all under

## Acts providing Legal Services

<p><b>Legal Services Authorities Act, 1987</b></p>  <p>gives a statutory base to legal aid programs, ensuring free and competent legal services for various eligible groups.</p>	<p><b>NALSA was constituted in 1995,</b></p>  <p>monitors and evaluates the implementation of legal aid programs nationwide.</p>	<p><b>State Legal Services Authorities and District Legal Services</b></p>  <p>Authorities are established to execute NALSA's policies and provide legal services at the state and district levels.</p>
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**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

**Q. Consider the following statements:**

1. Supreme Court Legal Services Committee (SCLSC) was established to provide free and competent legal services to the weaker sections of society.
2. Members of the Committee are nominated by the President of India.

Which of the statements given above is/are correct?

(a) 1 only (b) 2 only

(c) Both 1 and 2 (d) Neither 1 nor 2

Answer: (a)

## FCRA REGISTRATION FOR SEVERAL NGOs CANCELLED

**Why in News:** The Foreign Contribution Regulation Act, 2010 (FCRA) registration of two prominent NGOs: Centre for Policy Research (CPR) and World Vision India (WVI) have been cancelled.

### Key details

- MHA alleged that CPR diverted foreign donations to fund protests and legal battles against developmental projects and misused funds to affect India's economic interests.
- The registration of WVI was cancelled for alleged FCRA violations from 2012-13 to 2020-21.
- WVI is the recipient of the highest amount of foreign donations among all NGOs registered under the Act in 1986.

## FOREIGN CONTRIBUTION (REGULATION) ACT (FCRA)

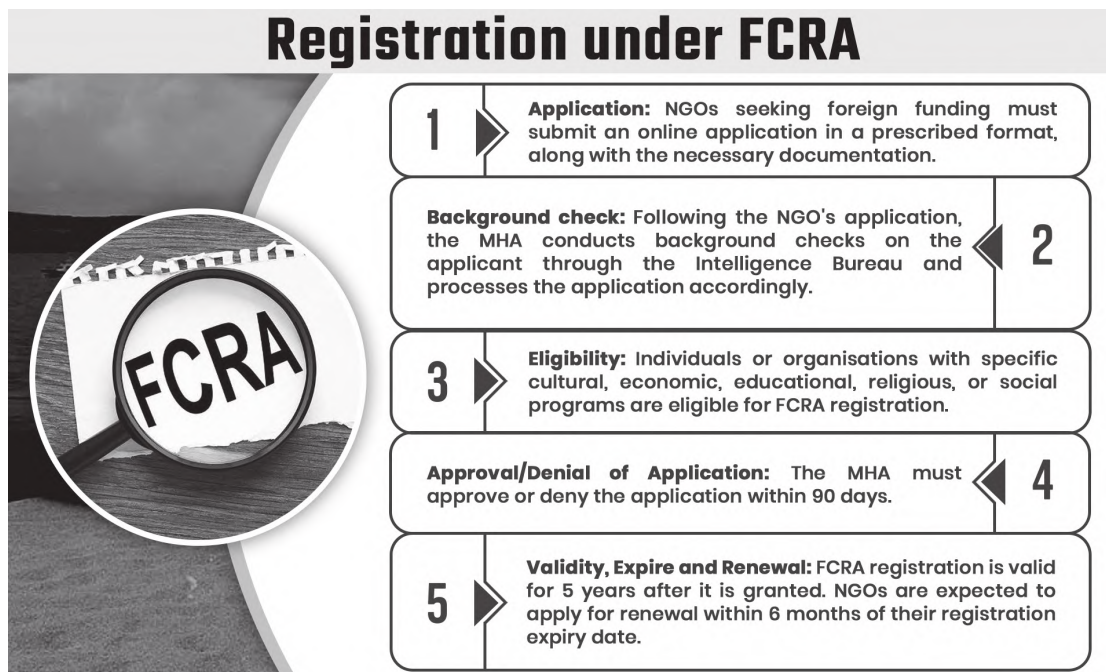
### Background

- Union Ministry of Home Affairs (MHA) monitors the implementation of the FCRA.

- The law sought to regulate foreign donations to individuals and organisations in order for them to function in accordance with the values of a sovereign democratic republic.

### Salient features

- The FCRA requires every person or NGO seeking to receive foreign donations to be Registered under the Act.
- To open a bank account for the receipt of the foreign funds in State Bank of India, Delhi.
- To utilise those funds only for the purpose for which they have been received and as stipulated in the Act.
- To file annual returns and must not transfer the funds to another NGO.
- The Act prohibits the receipt of foreign funds by:
  - Candidates for elections,
  - Journalists or newspaper and media broadcast companies,
  - Judges and government servants,
  - Members of legislature and political parties or their office-bearers,
  - Organisations of political nature.



### Cancellation of registration

- The government reserves the right to revoke any NGO's FCRA registration if it discovers a violation of the Act.
- Registration can be revoked if -
  - The NGO has not engaged in any reasonable activity in its chosen field for the benefit of society for two consecutive years or if it has become defunct.
  - In the opinion of the Central Government, it is necessary in the public interest to revoke the certificate, etc.
  - An audit uncovers irregularities in an NGO's finances, such as the misutilisation of foreign funds.
- No cancellation order can be issued unless the person or NGO involved has been given a reasonable opportunity to be heard.

- Once an NGO's registration is cancelled, it is **ineligible for re-registration for 3 years**.
- The ministry also has the **authority to suspend an NGO's registration for 180 days** pending an investigation and to freeze its funds.
- All government orders can be challenged in the High Court.

**How many have lost registration?**

- Since 2015, FCRA registration of **more than 16,000 NGOs** have been cancelled on account of violation.
- As on January 22, **there were 16,989 FCRA-registered NGOs active** in the country.

**Risks of money laundering and terrorist financing**

- ✓ A 2012 report by the MHA said that the **NGO sector in India is vulnerable to the risks of money laundering and terrorist financing**.
- ✓ **Necessary steps for rigorous enforcement as well as coordination with foreign countries** for law enforcement are being taken.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. With reference to the Foreign Contribution Regulation Act, 2010 (FCRA), consider the following statements:

1. The law sought to regulate foreign donations to individuals as well as organisations in the country.
2. Union Ministry of Finance monitors the implementation of the FCRA.

3. The decision of the government under the Act cannot be challenged in a court.

How many of the above statements are correct?

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

(a) Answer

Q2. The Foreign Contribution Regulation Act, 2010 (FCRA) prohibits whom among the following for receiving foreign funds?

1. Journalists or newspaper and media broadcast companies
2. Members of legislature and political parties
3. Judges and government servants
4. Charitable Trusts

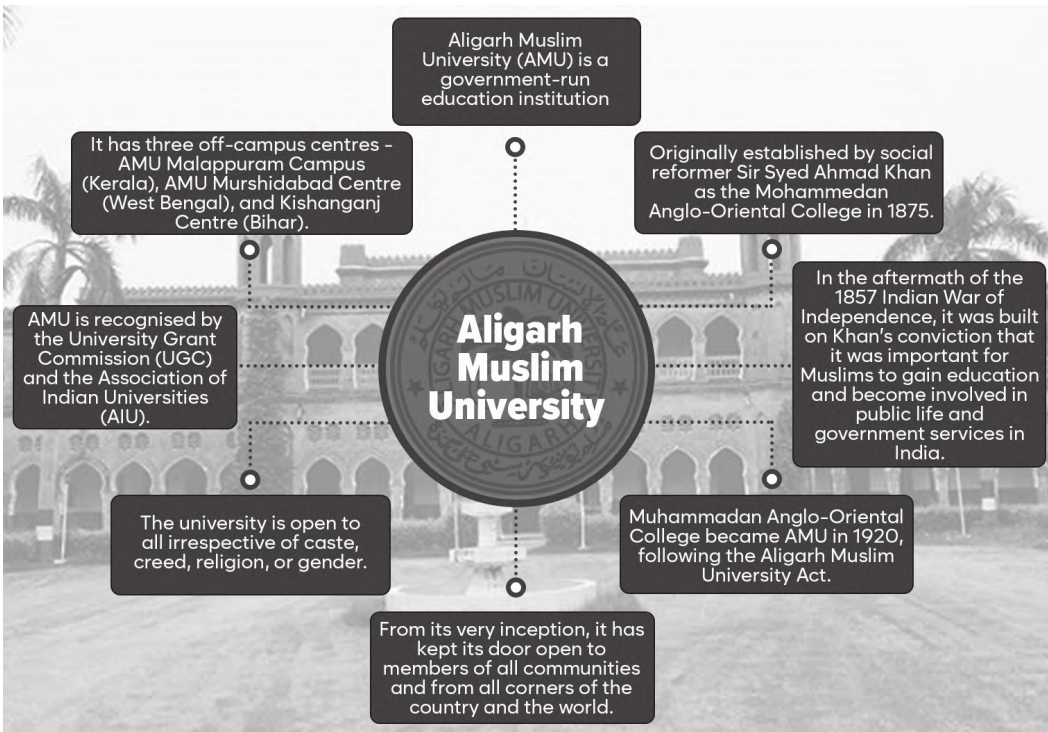
Select the correct answer code:

(a) Only one      (b) Only two  
(c) Only three      (d) All four

(c) Answer

**ALIGARH MUSLIM UNIVERSITY (AMU) AND MINORITY STATUS**

**Why in News:** The Supreme Court recently said that over the last hundred years, Aligarh Muslim University (AMU) has continued to be an institute of national importance, without the minority tag.







**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. With reference to Bharat Ratna Award, which of the following statements are correct?

1. It is awarded to Indian born citizens only and not to foreigners.
2. The recommendations for Bharat Ratna are made by the Prime Minister to the President.

3. The number of annual awards is restricted to a maximum of three in a particular year.
4. It cannot be awarded posthumously.

Select the correct answer code:

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

Answer: (b)

**THE MAKING OF THE NORTHEAST**

**Why in News:** On December 30, 1971, two laws — the North-Eastern Areas (Reorganisation) Act and the North-Eastern Council Act — were enacted by Parliament.



- It became an **independent** country in 1947, before being **annexed by India** in 1975.
- In 2001 Sikkim was made a **member** of the **North Eastern Council**, and thus **officially a part of the Northeast**.

**About Colonial Assam**

- **Colonial Assam** was a “**frontier province**” in British India.
- **Direct rule was limited** to territories behind the administrative border, known as the ‘**settled districts**’ of Assam (most of present-day Assam and Sylhet, now in Bangladesh).
- These densely populated districts were and still are the region’s **economic heartland**, with **thriving tea, coal, and oil industries** emerging in the nineteenth century.
- **Beyond these districts** lay the so-called ‘**excluded areas**’ or the ‘**Hill areas**’, **controlled by various tribes**, with minimal presence of the colonial state.
- These areas were and still are, **sparsely populated**, and provided a **buffer zone** between the ‘**settled districts**’ and the **international border**.

**About the Northeast region**

- With the above two laws, Northeast India emerged as a significant administrative concept **replacing** the hitherto more familiar unit of public imagination, **Assam**.
- Northeast India officially comprises **eight states**.
- These are a part of the **North-Eastern Council**, a **statutory advisory body** that plays a role in development planning, and region-level policy making.

**Position before independence**

- Pre-Independence, **five** of these eight present-day states were a **part of colonial Assam**:
  - Arunachal Pradesh
  - Assam
  - Meghalaya
  - Nagaland
  - Mizoram
  - **Manipur and Tripura** were princely states, with resident British political officers **answering to the governor of Assam**.
  - **Sikkim**, the most unique of the eight, was **juridically independent** but **under British paramountcy**.

**Post-independence scenario**

- **Need for formation of Northeast**
  - India’s foremost **concern** was the nebulous concept of **national security**.
  - After 1947, **98 per cent** of the region’s **borders** became **international** (with China, Myanmar, Bangladesh, and Bhutan).
  - A roughly **22 km wide land corridor** in **Siliguri**, often referred to as the “**chicken’s neck**”, became its sole **physical connection with the rest of India**.
  - By the 1960s, **national security concerns** were further heightened.
  - India had a **border war with China in 1962**, with the Chinese entering all the way into Assam, and the **movement for Naga independence** was in full swing.

- **India and Pakistan** fought a **war in 1965**, and the **Mizo rebellion** began the following year.
- Fears about the **challenge to national security** if the country's external and domestic enemies were to join hands, became jarringly immediate.
- **Making of Nagaland**
  - By making **Nagaland into a state**, India hoped to create Naga stakeholders in the Indian dispensation that would **help quell the Angami Zapu Phizo-led rebellion**.
  - In retrospect it turned out to be the **first step** toward **replacing the administrative structure** of the frontier province with a new structure of governance.
- **Making of other states**
  - With the **North-Eastern Areas (Reorganisation) Act of 1971**, **Manipur** and **Tripura**, previously union territories, were **given statehood**.
  - **Meghalaya** was carved out of two previously autonomous districts within Assam, and so was the union territory of Mizoram.
  - The erstwhile **North East Frontier Agency** became the **union territory of Arunachal Pradesh**.
  - Both **Mizoram** and **Arunachal** were be granted **full statehood in 1987**.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. With reference to Northeastern states, consider the following statements:

1. The North-eastern states are part of the North Eastern Council, which is a constitutional body.
2. All eight states were part of Assam in colonial India.
3. Colonial Assam was a frontier province in British India.

Which of the statements given above is/are incorrect?

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

Q2. With reference to status of Assam in colonial India, consider the following statements:

1. Settled districts of Assam were under direct rule that were behind the administrative border.
2. Excluded areas or the Hill areas were controlled by various tribes, with minimal presence of the colonial state.

Which of the statements given above is/are correct?

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

Q3. After independence, the colonial era North-east frontier Agency became the union territory of -

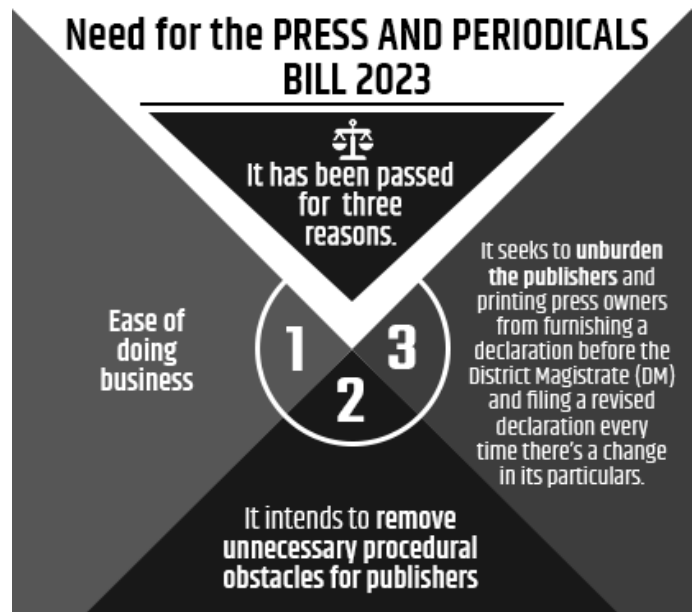
- (a) Assam
  - (b) Nagaland
  - (c) Manipur
  - (d) Arunachal Pradesh
- Answer: (d)

**PRESS AND PERIODICALS BILL 2023**

*Why in News:* After being passed in the Rajya Sabha, the Press and Registration of Periodicals Bill, 2023, was passed in the Lok Sabha.

**Key details**

- Seeking to **repeal the Press and Registration of Books Act, 1867**, the Bill contains a unique provision **disallowing persons convicted of terrorist acts or unlawful activities**, or those who have acted against state security, **from publishing periodicals**.
- A **periodical** means any **publication, barring books or journals**, that is **printed at regular intervals** and contains public news or comments on public news.



**How is this Bill different from the 1867 Act?**

- **Books:**
  - The 1867 Act was enacted for the **regulation of printing presses** and newspapers, the **preservation**

- of copies of books and newspapers printed in India, and their registration.
- This bill removes books from its ambit as they are under the Human Resource Development Ministry.
- **Decriminalisation and Appellate Authority:**
  - The 2023 Bill seeks to decriminalise the colonial-era statute by replacing jail terms with fines, and providing for an appellate mechanism headed by the Chairman of the Press Council of India.
  - The Appellate Board:
    - ◆ **The Appellate Board** (Press and Registration Appellate Board) will comprise:
      - The PCI chairman,
      - Two PCI members
      - It will hear appeals against refusal of registration, imposition of penalties, suspension, or cancellation of registration.
- **Penalties:**
  - The 1867 law included up to six-months imprisonment for offences like keeping a press without declaration, making false statements, and violating printing or publishing requirements.
  - The new bill has replaced all such penal provisions with fines, barring one.
    - ◆ It allows six-month imprisonment for anyone failing to cease publication even after six months of the issuance of directions or those publishing without a certificate of registration.
  - The upper limit of fines has been hiked considerably from Rs 2,000 to Rs 5 lakh.
- **Press Registrar General:**
  - The new Bill shifts all the power from the DM's hands to the Press Registrar General (PRG), a newly created position.
  - Although the 1867 Act included a "Press Registrar" or a "Registrar of newspapers for India" appointed by the Centre, its powers were limited, unlike the PRG's under the new law.
  - The Bill delineate the PRG's functions and powers, respectively.
  - The PRG is entrusted with tasks like:
    - ◆ issuing certificates of registration to periodicals,
    - ◆ maintaining records of registered periodicals,
    - ◆ collecting application fees, and
    - ◆ disbursing the Centre's funds for the Act's implementation.
- **Foreign periodicals:**
  - An exact reproduction of a foreign periodical may be printed in India only with the prior approval of the central government.
- The manner of registration of such periodicals will be prescribed.
- **Process of declarations and registration:**
  - The 1867 Act mandated a declaration specifying the printer or publisher be made to the DM, who then sent it to the Press Registrar, who issued a certificate of registration necessary for publication.
  - In the new Bill, the publishers will no longer be required to file a declaration with the DM or the local authorities.
  - Printing presses can simply give an online intimation instead of filing a declaration.
  - Publishers and printers would not have to file separate applications as the Bill allows the processing of the title allotment and registration applications simultaneously.
- **UAPA provision:**
  - In the new Bill, any person who has been convicted of a "terrorist act" or "unlawful activity" or has acted against the security of the state will not be allowed to publish a periodical.
  - Terrorist act and unlawful activity shall have the same meaning assigned to them in under the Unlawful Activities (Prevention) Act, 1967.
    - ◆ Terrorist act refers to any act done with intent to threaten or likely to threaten the unity, integrity, security, economic security, or sovereignty of India or with intent to strike terror or likely to strike terror among people.
    - ◆ Unlawful activity refers to any action by individuals or associations supporting any claim for secession, separatism, disruption of sovereignty or integrity, among others.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQ**

- Q. With reference to the recently passed Press and periodicals Bill 2023, consider the following statements:
1. It disallows persons convicted of terrorist acts or unlawful activities from publishing periodicals.
  2. It created a new position of the Press Registrar General
  3. The Press Registrar General will work in tandem with the District Magistrate, however the Press Registrar General cannot overpower the District Magistrate.

How many of the above statements are correct?

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

(b) Answer

**Descriptive Question**

- Q. Give a brief overview of Press and Periodicals Bill, 2023. [15 Marks] [250 Words]

## INDIAN OCEAN NAVAL SYMPOSIUM (IONS)

**Why in News:** Recently, the 8<sup>th</sup> edition of Indian Ocean Naval Symposium (IONS) Conclave of Chiefs (CoC) was conducted by Royal Thai Navy at Bangkok, Thailand

### Key details

- **Flag designed by India** was selected as the IONS Flag.
- **India** also took over as the **co-chair** of IONS Working Groups on Maritime Security and Humanitarian Assistance and Disaster Relief (HADR) for the forthcoming cycle.
- **Republic of Korea Navy** was welcomed by the Conclave as the *latest 'Observer'*.

### About IONS

## INDIAN OCEAN NAVAL SYMPOSIUM (IONS)

### About

The IONS is a non-profit organisation that brings together the fleets of Indian Ocean Region (IOR) littoral governments to improve maritime cooperation and regional security.

### Members

IONS includes 25 member nations that touch or lie within the IOR, and 9 observer nations.

### Initiatives Associated with IOR

- ▶ Its aim is to strengthen regional cooperation and promote long-term development in the Indian Ocean region.

### Significance for India

- ▶ Strengthening and deepening ties with Indian Ocean littoral governments
- ▶ Establishing its leadership capacity and aspirations to be a net-security provider
- ▶ Realising India's vision of a rules-based and stable maritime order in the Indian Ocean region.

- 'Indian Ocean Naval Symposium' (IONS) is a **voluntary initiative** that seeks to **increase maritime co-operation** among navies of the littoral states of the Indian Ocean Region.
- It is a series of **biennial meetings** between the **littoral states of the Indian Ocean region**.
- **Aims**
  - To provide an **open and inclusive forum** for discussion of regionally relevant maritime issues.
  - To generate a **flow of information** between naval professionals that would lead to **common understanding** and possibly cooperative solutions on the way ahead.
- IONS is a **security construct** for the Indian Ocean region which is similar to the Western Pacific Naval Symposium.
- IONS was **conceived by the Indian Navy** in 2008.
- The **inaugural edition** of IONS was held in 2008 at **New Delhi**, with Indian Navy as the Chair for two years (2008 - 2010).
- India is also scheduled to take over as the Chair of IONS (2025-27).

### Members and observers

- The **25 member nations** of the IONS are grouped into **four sub-regions**.
- The **nine observing countries** in the IONS are Germany, China, the Netherlands, Spain, Russia, Italy, Japan, Madagascar and **Republic of Korea**.

SUB REGION	MEMBER
South Asian	Bangladesh
	India
	Maldives
	Pakistan
	Seychelles
	Sri Lanka
West Asian	Iran
	Oman
	Saudi Arabia
	Qatar
	UAE
East African	France
	Kenya
	Mauritius
	Mozambique
	South Africa
	Tanzania
	Eritrea
South East Asian and Australian	Australia
	Indonesia
	Malaysia
	Myanmar
	Singapore
	Thailand
	Timor Leste

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQ**

Q. Consider the following statements regarding Indian Ocean Naval Symposium (IONS):

1. Indian Ocean Naval Symposium is a voluntary initiative to increase maritime co-operation among navies of the littoral states of the Indian Ocean Region.
2. Pakistan is not a member of IONS.
3. In the latest edition of IONS, the flag designed by India was adopted as the IONS flag.

How many of the statements given above is/are correct?

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

Answer: (b)

**Descriptive Question**

Q. Write a short note on Indian Ocean Naval Symposium. [15 Marks] [250 Words]

**INDIA-US TRADE POLICY MEET**

**Why in News:** Representatives of the Government of India and the US Government are set to meet at the Trade Policy Forum (TPF) — India’s bilateral platform with the US.

**Significance of Trade Policy Forum for India**

- **US is the single largest trade partner of India** and the only large economy where India exports more than it imports.
- Goods exports are slowing in the West due to the Russia-Ukraine war, India predominantly depends on the US demand for export earnings.
- India is also **banking on the US-led Indo-Pacific Economic Framework for Prosperity (IPEF) trade pact to counter China’s influence** on trade in Asia.



### Generalized System of Preferences (GSP)

- GSP is the **largest and oldest US trade preference programme**, designed to promote economic development by allowing duty-free entry for thousands of products from designated beneficiary countries.
- It is an **umbrella that comprises the bulk of preferential schemes** granted by industrialized nations to developing countries.
- **India had lost GSP benefits in 2019** when former US President Donald Trump began introducing radical trade measures citing widening trade gap with India and China.
  - Donald Trump's trade war was detrimental to India as it was the largest beneficiary of GSP status in 2017 with \$5.7 billion worth of imports into the US given duty-free status.
- Under the Joe Biden administration **GSP was not restored**.
- **GSP restoration was discussed** during the last India-US trade policy forum last year too.

### US' Concerns w.r.t. India's Laptop Import Monitoring System

- Even though India has clarified that it **will not impose restrictions on laptop imports, the US continues to raise questions on the purpose of the "monitoring system"** that has been proposed as an alternative.
- Such measures are seen as a non-tariff measure.
- India has said that the aim to impose such a system is to ensure that the IT products come from **trusted geographies**.

### How is India looking to boost service trade with the US?

- India is seeking liberal visa regime to boost service trade.
- India's services exports have been on the rise and healthy export numbers largely due to the US demand has helped lower the current account deficit.
- India is also set to reiterate its **longstanding demand for a totalisation agreement** that will provide social security to Indian professionals in the US.
- A totalisation agreement or social security agreement will **eliminate dual social security deductions in India and the US**.
- The agreement will **particularly benefit the Indian IT sector workforce** who are working in the US and paying social security but are unable to get the benefit.

#### EXPECTED QUESTIONS FOR UPSC CSE

##### Prelims MCQs

Q1. Consider the following statements:

1. The United States of America is the single largest trade partner of India.

2. The USA is the only large economy where India exports more than it imports.

Which of the statements given above is/are correct?

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

(c) :Answer

Q2. With reference to Indo-Pacific Economic Framework for Prosperity (IPEF), consider the following statements:

1. The IPEF is a Free Trade Agreement (FTA).
2. India and Pakistan both are members of IPEF.
3. IPEF partners together represent 40% of the world GDP.

How many of the above statements are correct?

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

(a) :Answer

Q3. Generalized System of Preferences is a trade preference programme of which of the following countries?

- (a) United States of America    (b) European Union  
(c) Russian Federation            (d) Republic of India

(a) :Answer

#### Descriptive Question

Q. Write a short note on India-USA trade relations. [15 Marks] [250 Words]

## IRAN STRIKES MILITANT BASES IN PAKISTAN

**Why in news:** Iran bombed two bases of militant group Jaish al-Adl in Pakistan's Balochistan province with missiles and drones.

#### Key details

- Iran has not yet specified the reason behind the attack.
- This attack killed two children and injured three others.
- Pakistan has recalled its ambassador and expelled the Iranian envoy.

- Iran's Baluch minority numbers between one and four million people, based mainly in the **southeastern region of Sistan-Baluchestan**.
  - The region is **poor and underdeveloped**.
- Made up of **rugged, mountainous terrain, it has become a haven for heroin and opium-smuggling** from across the border with neighbouring Pakistan and Afghanistan.

**Demography**

- The **Baluchs** who live there are mostly Sunni Muslims and identify themselves as part of an ancient tradition separate from that of Iran's Persian ethnicity.
- The majority of Iran's population are Shia.
- They identify themselves closely with the Baluch populations across the border in Pakistan.

**About Jaish al-Adl**

- Jaish al-Adl, literally the "Army of Justice", are a Sunni Salafist militant group with bases in Pakistan's Balochistan province.
- These militants are active in the mountainous border regions of Pakistan and Iran.
- It was founded in 2012, and Iranian officials believe it largely operates in Pakistan.
- Militants of this group assert that they are fighting to gain independence for the Sistan and Baluchestan province, also known as Asli Balouchestan.

**Past attacks**

- The group has allegedly been involved in a series of violent attacks in Iran, and has claimed bombings and kidnapped members of Iran's border police.
- Iran has suspected that Sunni-majority Pakistan is hosting insurgents, possibly at the behest of its regional archrival Saudi Arabia.

**Iran strikes militant group Jaish al-Adl bases in Pakistan**

- As per media reports, the attack took place near Panjgur in southwest Balochistan.
- Earlier, Iran said that two bases belonging to Jaish al-Adl militants in Balochistan province were destroyed.
- This development is significant as it comes amid an escalating Middle East crisis led by the war in Gaza.
- Iran's attack on Pakistan came less than a day after Iranian strikes on northern Iraq that killed several civilians.
- Iraq recalled its ambassador from Tehran for consultations and summoned Iran's ambassador in Baghdad in protest.
- Iran separately struck Syria as well.






**India's stand on Iran's missile strikes in Pakistan**

- Though it is a matter between Iran and Pakistan, India maintains an uncompromising position of **zero tolerance towards terrorism**.
- India supports **actions that countries take in their self-defence**.

- India silent on Iran's strikes against Kurdish areas in Iraq, as well as in Syria
- Also, the MEA did not comment on Iran's strikes against Kurdish areas in Iraq, as well as in Syria, all of which took place recently.

**India's position on terrorism**

**INDIA'S POSITION ON TERRORISM**

 <p><b>Zero tolerance</b></p> <p>India has an uncompromising position of zero tolerance towards terrorism.</p>	 <p><b>Self-defence</b></p> <p>India understands actions that countries take in their self-defence. India recognizes the right of self-defence of legitimate national liberation movements.</p>
 <p><b>Non-state actors</b></p> <p>India supports the use of force against non-state actors, but opposes the use of force against a state to counter-terrorism.</p>	 <p><b>Labelling</b></p> <p>India opposes labelling terrorism based on the motivation behind such acts.</p>
 <p><b>Cooperation</b></p> <p>India believes in the development of cooperation in the fight against terrorism.</p>	

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. Jaish al-Adl, a militant group sometimes seen in the news, is related to which of the following countries?

- (a) Syria
- (b) Iran
- (c) Iraq
- (d) Palestine

Answer: (b)

Q2. Sistan-Baluchestan region, sometimes seen in the news, is located in:

- (a) Kyrgyztan
- (b) Pakistan
- (c) Afghanistan
- (d) Iran

Answer: (d)

**INDIANS IN JAILS ABROAD**

**Why in News:** Appellate Court in Qatar has commuted the death sentence of eight former Indian Navy personnel arrested in connection with an alleged case of espionage.

**Indians abroad**

- According to data by the Ministry of External Affairs (MEA), in 210 countries:

- more than **1.3 crore (1,36,01,780) Non-Resident Indians (NRIs)**,
- **over 1.8 crore (1,86,83,645) Persons of Indian Origin (PIOs)**, and
- **3.2 crore (3,22,85,425) Overseas Indians**.

### How many Indians are lodged in foreign prisons?

- The number of Indian prisoners, including **undertrials**, in foreign prisons at present is **9,521**.
- The number could be **higher**, as **many countries don't share information** on prisoners on account of their strong privacy laws.

### Where are most Indian prisoners lodged?

- More than **62%**, or **almost 6,000**, are lodged in the **Middle East**, followed by **Asia**.
- The **highest number** of Indian prisoners (2,200) are lodged in **Saudi Arabia**, followed by the **United Arab Emirates** at 2,143.

### What happens when an Indian is imprisoned abroad?

- **Indian Missions and Posts** abroad closely monitor incidents of Indian nationals being jailed for alleged **violation of local laws**.
- As soon as **information about the detention or arrest** of an Indian national is received by the Mission or Post, it gets in touch with the **local Foreign Office** and other local authorities to get **consular access** to such individuals.
- MEA officials then ascertain the **facts of the case**, **confirm Indian nationality**, and ensure the **welfare of such individuals** in various ways, such as:
  - ◆ extending all possible **consular assistance**,
  - ◆ assistance in providing **legal aid** wherever needed, and
  - ◆ approaching **local law enforcement agencies** to complete judicial proceedings at the earliest possible.

### Is legal assistance provided?

- Indian Missions and Posts maintain a **local panel of lawyers** in countries where the Indian community is based in **sizeable numbers**.
- **No fee** is charged for the facilities extended by the Embassy.
- The **Indian Community Welfare Fund (ICWF)** is set up at Missions and Posts abroad to **assist overseas Indian nationals** in distress situations in deserving cases.
- The support extended under ICWF includes financial assistance for legal aid as well as **travel documents** and **air tickets** during repatriation.
- The government also follows up the issue of **release and repatriation** of Indian nationals in foreign prisons during consular and other consultations with countries.

### Mechanism for exchange of prisoners

- India has signed **Agreement(s) on Transfer of Sentenced Persons (TSP)** with **31 countries** under which Indian prisoners lodged in foreign countries can be **transferred to India to serve the remainder of their sentence and vice-versa**.
- India has also signed **two multilateral conventions on transfer of sentenced persons** under which sentenced persons of member states and other countries which have **acceded to these can seek transfer of prisoners**.
  - the Inter-American Convention on Serving Criminal Sentences Abroad and
  - Council of Europe Convention on Transfer of Sentenced Persons.

### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. Consider the following statements:

1. The highest numbers of Indian prisoners are lodged in the jails of European countries.
2. Under Agreement on Transfer of Sentenced Persons, Indian prisoners lodged in foreign countries can be transferred to India to serve the remainder of their sentence.

Which of the statements given above is/are correct?

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

Answer: (b)

## MIGRATION AND MOBILITY AGREEMENT

**Why in News:** India's Migration and Mobility Agreement with Italy has been approved by the Union Cabinet.

### Key highlights of the agreement

- **Extended residence for Indian students**
  - The pact between the two nations would **ensure temporary residence** for **Indian students** in Italy for **up to one year** after studies to gather professional experience.
  - This would help them in **gathering initial professional experience**, after completing academic/vocational training in Italy.
- **Filling various gaps**
  - The bill seeks to **enhance people-to-people contacts, foster mobility of students, skilled workers,**

business people, and young professionals, and strengthen cooperation on issues related to irregular migration between the two sides.

• **Labour mobility under Flows Decree**

- The bill would also ensure an advantage for India under the existing labour mobility pathways under the flows decree as it locks in the current Italian visa regime, including mechanisms for post-study opportunities, internships, and professional training.
- The Flow Decree is a system to find the number of visas for non-EU citizens who can enter Italy for employment, self-employment, or seasonal work.

• **Formalisation of other pacts**

- The agreement is also expected to formalize a pact between the two nations for the employment of professionals in the healthcare and medical services sectors.
- It will also help India and Italy in formalising the irregular migration of workers from India.

• **Joint working group**

- A joint working group would monitor the irregular migration under the formal mechanism decided as per the agreement.
- The joint working group would meet periodically, in virtual or physical modes.

**INDIA**

Main legislations regulating migration and safeguarding the welfare of Indian migrants



The Emigration Act, 1983 (and its successive amendments)



The Foreigners Act, 1946



The Passports Act, 1967



**Pre-departure services:**

E-migrate online portal, Pravasi Bhartiya Bima Yojana (PBBY), Pravasi Kaushal Vikas Yojana, pre-departure orientation and training



**Services for Indians abroad:**

Indian missions, MADAD Consular Management Services, Migrant Resource Centres, Indian Community Welfare Fund

EXPECTED QUESTIONS FOR UPSC CSE

**Prelims MCQ**

Q. Recently India signed Migration and Mobility Agreement with which of the following countries?

- (a) Pakistan
- (b) Bangladesh
- (c) Italy
- (d) Canada

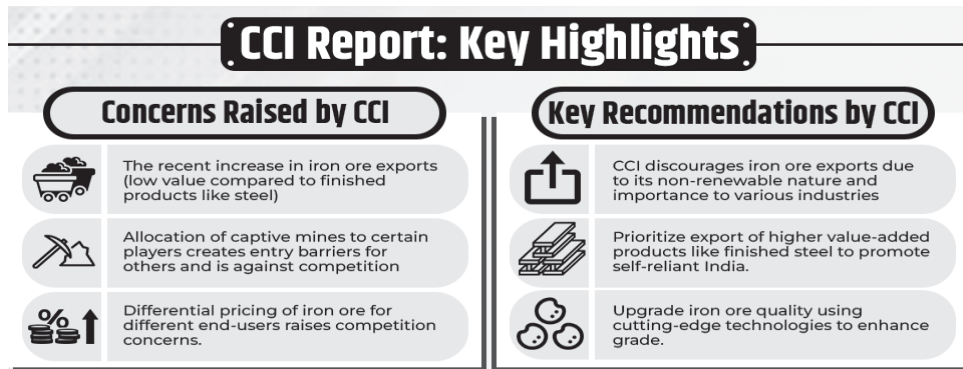
Answer: (c)

**Descriptive Question**

Q. Elaborate the provisions and advantages of Migration and Mobility agreement. [10 Marks] [150 Words]

## CCI STUDY ON IRON INDUSTRY

**Why in News:** Recently, the Competition Commission of India (CCI) conducted a study on iron ore pricing and exports.



### What is Iron Ore?

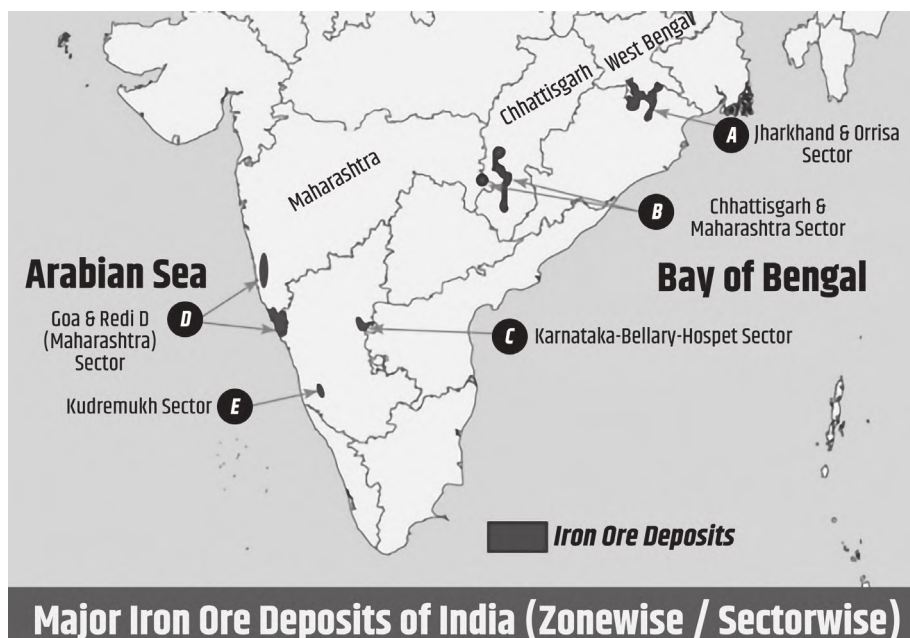
- Iron ore refers to rocks and minerals from which metallic iron can be extracted economically.
- It typically contains iron oxides, and the primary types include hematite, magnetite, and taconite.

### Status

- India is **self-sufficient** in iron ore production. It contributes **7% to global production**. India ranks as the **4<sup>th</sup> largest** producer globally.
- India is the **2<sup>nd</sup> largest producer** of steel in the world after China.

### Distribution of Iron Ore

- India is endowed with abundant resources of iron ore, with the largest reserve of iron ore in Asia.
- The iron ore mines occur in close proximity to the coal fields in the northeastern plateau region which adds to their advantage.
- About 95% of total the reserves of iron ore are located in the States of Odisha, Jharkhand, Chhattisgarh, Karnataka, Goa, Telangana, Andhra Pradesh and Tamil Nadu.



### COMPETITION COMMISSION OF INDIA

- It is a **statutory body** responsible for **enforcing the Competition Act 2002** throughout India and **preventing activities that hurt competition in India**.
- **Headquarters: New Delhi.**
- It has **six regional offices**:
  - Kolkata, Chennai, Mumbai, Delhi, Hyderabad and Bangalore.
- **Composition and appointment**:
  - The Commission is headed by a **Chairperson** and is made up of **six members appointed by the Central Government**.
  - The **chairperson** must be a person who has been a **Judge of the Supreme Court or Chief Justice of the High Court**, or an **economist with 20 years of experience**.
  - **Members** should possess **qualifications** prescribed under **Competition Commission Rules, 2009**.

### Significance of iron ore

- **International trade**
  - The two main types of iron ore found in India are haematite and magnetite.
  - It has great demand in the international market due to its superior quality.
- **Industrial use and applications**:
  - Iron ore is the source of primary iron for the world's iron and steel industries.
  - It is therefore essential for the production of steel, which in turn is essential to maintain a strong industrial base.
- **Larger significance**
  - Most part of the economy in the above regions, especially the four states of Jharkhand, West Bengal, Odisha and Chhattisgarh revolves around these raw materials (iron and manganese).

### Steel sector in India

- Steel sector has an **employment multiplier factor of 6.8x**, contributing approximately **14% to the manufacturing GDP and 2% to the country's GDP**.
  - It employs over **6 lakh people directly and 20 lakh people indirectly**.
- The major steel-producing states include **Odisha, Jharkhand, Chhattisgarh, Karnataka, Maharashtra, Gujarat, and West Bengal**, with Odisha leading in production.
- India is planning to **double steel production to 300 million tonnes per annum by 2030**.

### Challenges Faced by the Steel Sector

- Significant investment is required for modern plant.
- Cyclical Demand and Monsoon Challenges: Demand is influenced by factors like monsoons; Low-demand periods lead to financial strain and plant closures.

- Low per capita steel consumption compared to other developed countries.
- Low Investment in R&D
- Dependence on international research increases costs, and outdated technologies hamper competitiveness
- Environmental Concerns: The steel industry is a major carbon dioxide producer, and many of the plants don't adhere to green and EIA guidelines
- **Impact of EU's CBAM: Europe, under its Carbon Border Adjustment Mechanism, will monitor its steel imports to dissuade products manufactured using processes resulting in high carbon emissions.** This will likely to impact **between 15% and 40%** of India's annual steel exports which are made to Europe. CBAM is supposed to be effective from January 1, 2026.

### Government Initiatives for Steel Sector

- **Inclusion of Specialty Steel in the PLI Scheme:** The government allocated Rs 6322 crore for a 5-year period (starting from 2023-24) to promote speciality steel manufacturing, attract investments, and foster technological advancements.
- **Purvodaya initiative:** Facilitates the establishment of greenfield steel clusters in the Eastern states of Chhattisgarh, Jharkhand, West Bengal, Odisha, and Andhra Pradesh.
- **Steel Scrap Recycling Policy:** Notified in 2019, facilitating the establishment of metal scrapping centres for scientific processing and recycling of ferrous scrap, including end-of-life vehicles.
- **National Steel Policy 2017:** Formulated to encourage long-term growth for the Indian steel industry by 2030-31, aligning with infrastructure development, the 'Make-in-India' initiative, and other government schemes.

### Conclusion

India, currently the **fastest-growing** major economy, is set to emerge as the **3rd largest by 2027**, propelled by a host of factors, including favourable demographics, stable and progressive policies with a strategic focus on infrastructure, digitisation, manufacturing, logistics, trade, and energy transition.

Engaging with policymakers and international bodies is crucial to advocate for fair CBAM policies. Collaborative efforts with other industries and countries can address unique challenges in the Indian steel sector.

### EXPECTED QUESTIONS FOR UPSC CSE

#### Prelims MCQ

Q. Consider the following statements:

1. India is not self-sufficient in iron ore production and hence it imports the ore for its domestic needs.
2. India is the 2nd largest producer of steel in the world after China.

3. The iron ore mines in India occur in close proximity to the coal fields.

How many of the above statements are correct?

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

(b) Answer

**Descriptive Question**

Q. Discuss the significance and distribution of iron ore and steel industry in India. [15 marks] [250 words]

**CYBERFRAUDS RELATED TO AADHAR ENABLED PAYMENT SYSTEMS (AePS)**


**Why in News:** Aadhaar Enabled Payment System (AePS) frauds accounted for 11% of cyber financial scams originating in India, according to an analysis by the Indian Cyber Crime Coordination Centre (I4C).

**Key details**

- Most of these frauds occurred in Bihar and Jharkhand.
- The central government’s portal and the **1930 helpline received over 13 lakh complaints** related to cyber-enabled financial frauds.
- AePS fraud included instances of **biometric cloning**.

# ABOUT AePS

AADHAAR ENABLED PAYMENT SYSTEM



1

It is a payment service that allows users to access their Aadhaar-enabled bank accounts for transactions.

2

The analysis also highlighted other categories of cyber financial frauds, both locally and internationally, including sextortion, investment scams, illegal loan apps, and romance scams.

3

Social media-related cybercrimes totaled 1,41,056 reported cases in 2023.

4

It is managed by the National Payments Corporation of India (NPCI), a joint initiative of the RBI and IBA.

5


The AePS is a bank-led model facilitating online interoperable financial transactions through Aadhaar authentication.

6

Aimed at providing secure access to banking services, especially for rural and marginalized communities.

Working of AePS

- ▶ Eliminates the need for OTPs, bank details, and other financial information.
- ▶ Transactions require only the bank name, Aadhaar number and captured fingerprint during Aadhaar enrollment.



Benefits of AePS

- ▶ Facilitates cash transfers for government schemes directly into beneficiaries’ accounts.
- ▶ Allows access to bank accounts through any Banking Correspondent or micro-ATM of any bank.

**How is AePS exploited?**

- **Leaked biometric details:** Cybercriminals use stolen biometric information for unauthorized transactions.
- **Silicone thumbs:** Scammers use silicone thumbs to deceive biometric devices and perform fraudulent transactions.
- **Lack of transaction notifications:** Victims may not receive immediate alerts for unauthorized transactions.
- **Systemic issues:** Biometric mismatches, poor connectivity, and weaker systems affect performance and reliability.

**Preventive Measures**

- ✓ **Amendments to Aadhar Regulations 2016:** Proposed changes restrict the sharing of Aadhaar details without redaction.
- ✓ **Aadhaar Lock:** Users are advised to lock and unlock the Aadhaar as needed to prevent unauthorized biometric use.

**About I4C**

- **Indian Cyber Crime Coordination Centre (I4C)** deals with all types of cybercrimes in India.
- It will be set up under the newly created Cyber and Information Security (CIS) division of the MHA.
- The I4C aims to centralize cyber security investigations, develop response tools, and foster collaboration among private companies to combat cybercrime.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. Which of the following statement is incorrect regarding the Aadhaar Enabled Payment System?

- (a) It allows Aadhaar-enabled bank accounts for transactions.
- (b) It is operated by the National Payments Corporation of India.
- (c) It eliminates the need for One time Password.
- (d) None of the above

Answer: (d)

Q2. What is I4C?

- (a) It is an initiative for tiger conservation
- (b) It is an initiative for coordination on cybercrimes
- (c) It is project of ISRO to send humans to Mars
- (d) It is a new computer programme to prevent hacking of computer systems

Answer: (b)

**T+0 SETTLEMENT CYCLE**

**Why in News:** The Securities and Exchange Board of India (SEBI) has proposed the introduction of a facility for clearing and settlement of funds and securities on T+0 (same day) and instant settlement cycle on an optional basis.

**Key details**

- The facility will be in **addition** to the **existing T+1 (trade plus one day) settlement cycle** in the secondary markets for the equity cash segment.
- SEBI has proposed to introduce a **shorter settlement cycle** in two phases.

**Current settlement cycle**

- SEBI has **shortened** the **settlement cycle to T+3 from T+5** in 2002 and subsequently to **T+2** in 2003.
- At present, the settlement of funds and securities happens on the **T+1 cycle**.
- It was **introduced in 2021** in a phased manner and was **fully implemented** in 2023.
- Under it, securities and funds are **settled by the next day** of the trade.

**Proposal of SEBI**

- It proposed to implement it in **two phases**:
  - **Phase 1:** T+0 Settlement Cycle and
  - **Phase 2:** Instant Settlement Cycle.
- In **Phase 1**, an **optional T+0 settlement cycle** (for trades till 1:30 PM) is envisaged, with settlement of funds and securities to be completed on the same day by 4:30 PM.
- In **Phase 2**, an **optional immediate trade-by-trade settlement** (funds and securities) may be carried out. In the second phase, trading will be carried out till 3.30 pm.
- The **surveillance measures** applicable in the **T+1 settlement cycle** will also apply to securities in the T+0 settlement cycle.
- Securities under the **trade-for-trade settlement will not be permitted for T+0**.

# NEED FOR A SHORTER SETTLEMENT CYCLE



## Increased participation

➤ The increase in the participation of new investors puts a greater onus on the regulator to make markets more efficient and safer for its participants, with a special focus on retail participants.



## Extension of UPI

➤ The average Indian has rapidly embraced UPI (Unified Payments Interface) and instant payment platforms.  
➤ This flexibility can be extended to equity dealing as well.



## Preference to low cost and high speed

➤ In today's age, reliability, low cost and high speed of transactions are key features that attract investors to particular asset classes.  
➤ To that extent, reducing settlement time and hence increasing the operational efficiency of dealing in Indian securities can further draw and retain investors into this asset class.



## Features of the proposed T+0 settlement mechanism

- **Instant receipt**
  - An instant settlement mechanism would enable **instant receipt of funds and securities**, vis-a-vis existing pay-out on T+1 day.
  - It would **eliminate** the risk of **settlement shortages** since both funds and securities will be required to be **available before placing the order**.
- **Investor protection:**
  - It will **strengthen investor protection** by enhancing the control of the investor over the securities and funds as funds and securities would be **credited into the client's account directly** for those who are trading through blocked amounts using the UPI facility (UPI Clients).
- **Superiority of Indian stock market:**
  - Providing the option for instant settlement will help establish Indian equities as an **asset class** with the features of **resilience, low cost and time for transaction**, superior in all ways to emerging claimants of alternative asset classes.
- **Flexibility:**
  - For clients, the option is expected to provide **flexibility** in terms of **faster pay-out** of the funds against the securities to the sellers and **faster pay-out** of securities against the funds to the buyers.

## Potential concerns vis-à-vis T+0 settlement mechanism

It could lead to **liquidity fragmentation** and **affect efficient price discovery**; increase the **cost of trading**, as funds and

securities need to be made available upfront before placing the orders; and result in **divergence in the price of same security** in T+0 or instant settlement cycle, and T+1 settlement cycle.

## Securities and Exchange Board of India (SEBI)

- SEBI is a **statutory body** and a **market regulator**, which **controls the securities market** in India.
- The basic functions is to **protect the interests of investors** in securities and to promote and regulate the securities market.
- SEBI is run by its **board of members**.
  - The board consists of a **Chairman** and several other **whole time and part time members**.
  - The **chairman** is **nominated** by the union government.
  - The others include:
    - ◆ **two members** from the **finance ministry**,
    - ◆ **one member** from **Reserve Bank of India** and
    - ◆ **five other members** are also **nominated by the Centre**.
- The **headquarters** is situated in **Mumbai** and the **regional offices** are located in Ahmedabad, Kolkata, Chennai and Delhi.
- **History**
  - Before SEBI came into existence, **Controller of Capital Issues** was the regulatory authority.
  - It derived authority from the **Capital Issues (Control) Act, 1947**.
  - In **1988**, **SEBI was constituted** as the regulator of capital markets in India.
  - Initially, SEBI was a **non-statutory body** without any statutory power.
  - Following the passage of the **SEBI Act by Parliament in 1992**, it was given **autonomous and statutory powers**.

## EXPECTED QUESTIONS FOR UPSC CSE

### Prelims MCQs

- Q1. With reference to T+0 settlement cycle proposed by the Securities and Exchange Board of India (SEBI), consider the following statements:
1. This settlement cycle will operate in the primary market for the equity cash segment.
  2. The facility will replace the existing T+1 settlement cycle.

3. Under this settlement of funds and securities will be completed on the same day.

How any of the above statements are correct?

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

Answer: (a)

Q2. Which of the following statement is incorrect about Securities and Exchange Board of India (SEBI)?

- (a) It is a statutory body.
- (b) Its headquarters is situated in Mumbai
- (c) Chairman of SEBI is appointed by the President of India
- (d) All of the above statements are correct

Answer: (c)

## INDIAN STOCK MARKET BECOMES FOURTH LARGEST GLOBALLY

**Why in News:** Indian stock market has surpassed Hong Kong to claim the position of the fourth-largest stock market globally.

### Key details

- Despite a 1.5% dip in domestic indices, the combined value of listed shares on Indian exchanges **reached USD 4.33 trillion**, exceeding **Hong Kong's USD 4.29 trillion**, as reported by Bloomberg.
- **Factors contributing** to India's stock market growth include a strong GDP growth forecast, manageable inflation, political stability, and foreign portfolio investors' inflow.
- **The US, China and Japan are the top stock markets** in the world.

### Stock Markets

- ✓ Stock markets are venues where **buyers and sellers** meet to **exchange equity shares** of public corporations.
- ✓ These are components of a **free-market economy** because they enable **democratized access to investor** trading and exchange of capital.
- ✓ These create **efficient price discovery** and efficient dealing.

#### Indian Stock market

- ✓ India has two primary stock markets:

#### Bombay Stock Exchange (BSE)

#### National Stock Exchange (NSE).

- ✓ The BSE is **India's oldest stock exchange**.
- ✓ India's exchanges are regulated by the **Securities Exchange Board of India (SEBI)**.

**SEBI:** A **statutory (SEBI Act, 1992) regulatory**, under the administrative domain of Ministry of Finance, for securities and commodity market in India.

- ✓ The two prominent Indian market indexes are **Sensex and Nifty**.

### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. Consider the following statements:

1. Stock markets facilitate the interaction between those who need capital with those who have capital to invest.
2. National Stock Exchange (NSE) is India's oldest stock exchange.

Which of the statements given above is/are correct?

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

Answer: (d)

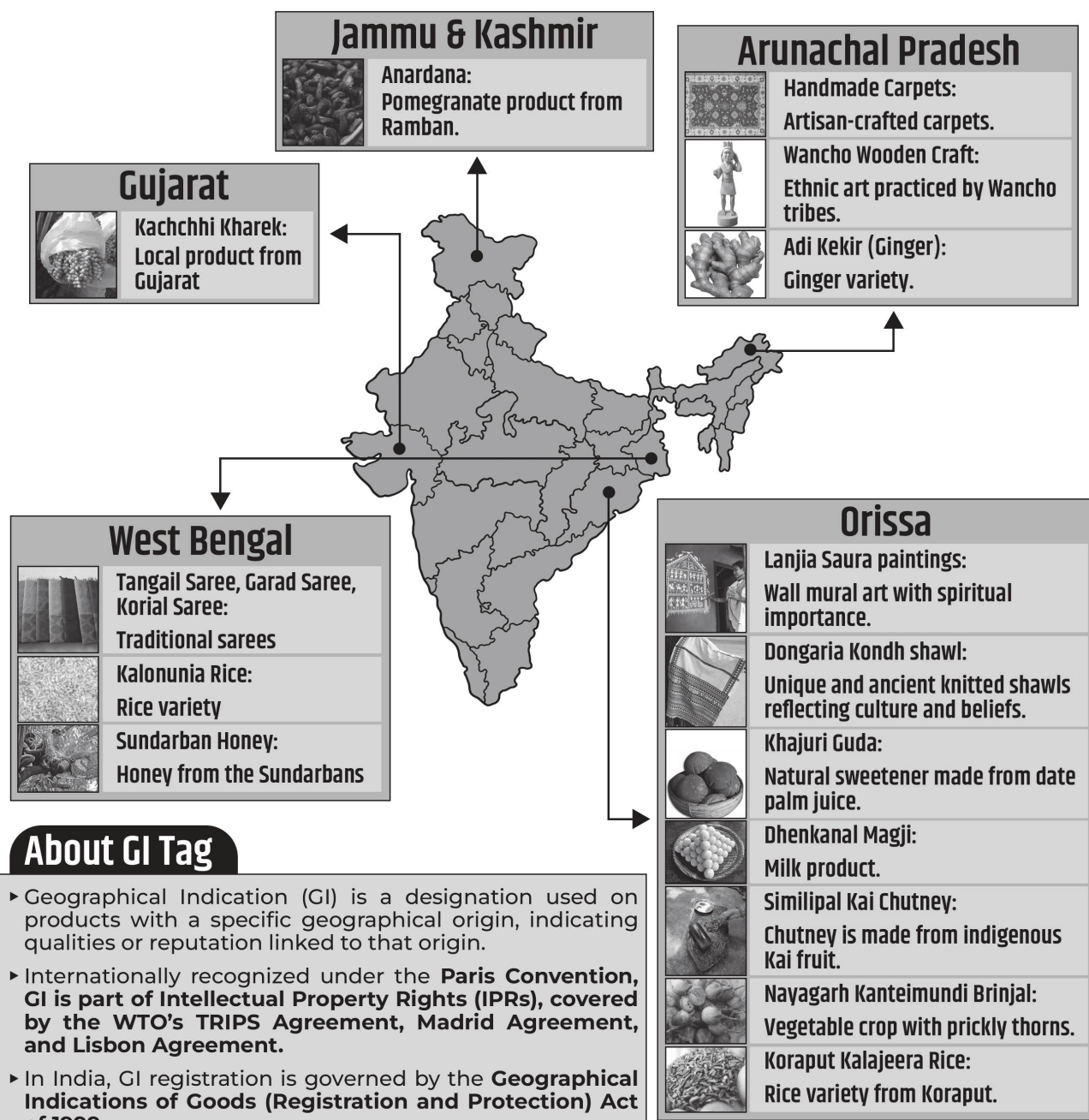
# GI TAG



## Why in News?

Recently, Seventeen products have been awarded the Geographical Indications (GI) tag.

## Products given GI tag



## About GI Tag

- ▶ Geographical Indication (GI) is a designation used on products with a specific geographical origin, indicating qualities or reputation linked to that origin.
- ▶ Internationally recognized under the **Paris Convention**, GI is part of **Intellectual Property Rights (IPRs)**, covered by the **WTO's TRIPS Agreement**, **Madrid Agreement**, and **Lisbon Agreement**.
- ▶ In India, GI registration is governed by the **Geographical Indications of Goods (Registration and Protection) Act of 1999**.
- ▶ Administered by the **Registrar of Geographical Indications (RGI)**, it identifies agricultural, natural, or manufactured goods, providing legal protection for 10 years, renewable.
- ▶ The Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry, oversees GI registration, offering protection against unauthorized use, promoting exports, and ensuring quality and distinctiveness.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. Consider the following:

GI Product	State
1. Lanjia Saura paintings	- Odisha
2. Adi Kekir	- Arunachal Pradesh
3. Kalonunia Rice	- Kerala
4. Anardana	- Jammu and Kashmir

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Answer: (c)

Q2. With reference to Geographical Indication tag, consider the following statements:

1. Geographical Indication (GI) is a designation used on goods as well as services with a specific geographical origin, indicating qualities or reputation linked to that origin.
2. It is internationally recognized under the Paris Convention and Lisbon Agreement.

Which of the statements given above is/are correct?

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

Answer: (b)

**BUREAU OF INDIAN STANDARDS FOUNDATION DAY**

*Why in News:* Bureau of Indian Standards (BIS) celebrated its 77th Foundation Day on 6th January 2024.

**About Bureau of Indian Standards (BIS)**

<p>It is a body under the Ministry of Consumer Affairs, Food, and Public Distribution, Government of India.</p>	<p>BIS is the National Standard Body of India established under the BIS Act 2016.</p>	<p>BIS works for the harmonious development of the activities of standardization, marking and quality certification of goods. BIS has its headquarters at New Delhi.</p>	<p>It operates various schemes like Product Certification (ISI mark), Hallmarking of Gold and Silver Jeweller, ECO Mark Scheme (for labeling of environment friendly products).</p>
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The BIS Act, 2016, has been implemented since October 2017.

- The **major highlights** of the act are:
  - Enables the government to authorize any agency apart from BIS to certify and enforce conformity to a standard.
  - Provides consumer protection measures like recall of non-conforming standard marked products, compensation to the consumer and more stringent penal provisions.

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. With reference to the Bureau of Indian Standards, consider the following statements:

1. It is a statutory body.
2. It comes under the Ministry of Commerce and Industry

Which of the statements given above is/are correct?

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

Answer: (a)

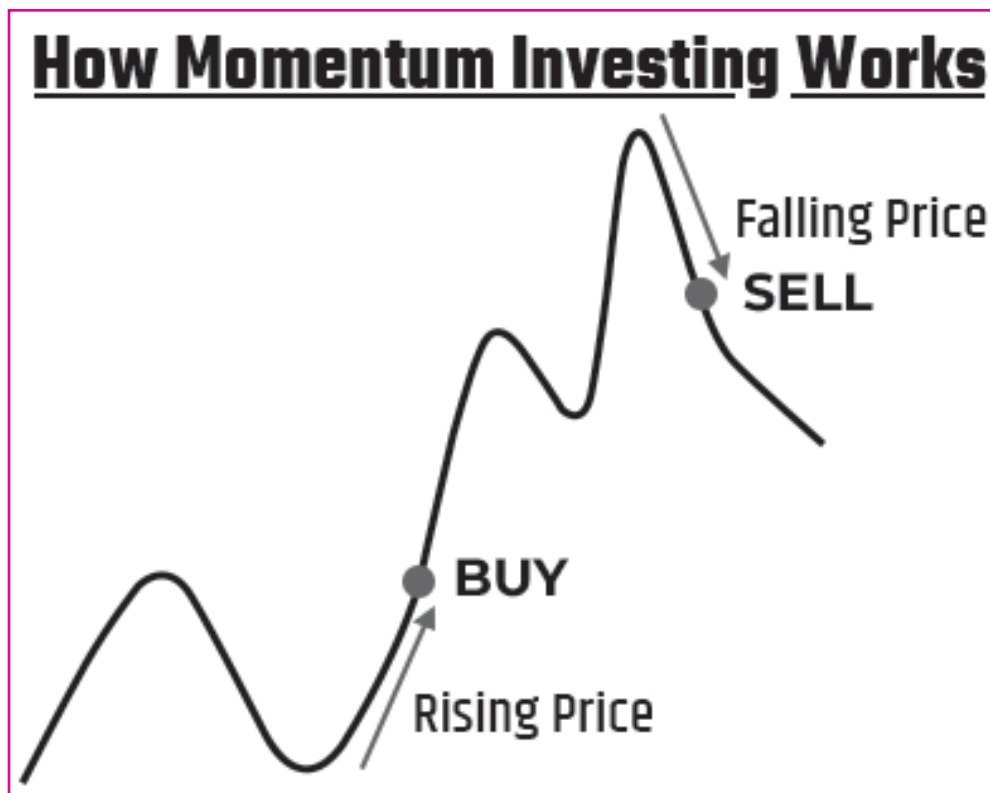
## MOMENTUM INVESTING

**Why in News:** Many studies have shown that **momentum investing can generate high returns** that comfortably beat the benchmark indices.

### About Momentum investing

- Momentum investors **buy assets with rising prices** in the hope that the upward price momentum of these assets would continue, thus allowing them to **sell these assets at higher prices in the future to make profits.**
- It is based on the philosophy that there can be discernible trends in asset prices and that these **trends tend to persist over time.**

- Similarly, investors **sell assets that are falling in price expecting the fall in prices to continue** for some time.
- Momentum investors **generally do not conduct a deep analysis** of the fundamental or intrinsic value of the assets in which they invest their money.
  - They invest purely based on whether the price of an asset is showing a **strong trend**, either upward or downward, that they can ride on.
- The “**buy high, sell higher**” philosophy of momentum investing is in stark contrast to the **traditional “buy low, sell high”** advice given to investors.



### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. What is momentum investing in the context of an economy?

- (a) Buying more assets with falling prices
- (b) Selling more assets with rising prices
- (c) Selling more assets with falling prices
- (d) Buying more assets with rising prices

(d) :Answer

## STATE START-UP RANKING

**Why in News:** The results of the 4<sup>th</sup> edition of **Ranking of States on Support to Startup Ecosystems** were released by the Ministry of Commerce and Industry.

### Key details

- This edition’s ranking exercise saw **the highest-ever participation with 33 States and UTs** participating.
  - **Best Performer:** Gujarat, Kerala, Karnataka
  - **Top Performers:** Tamil Nadu, Himachal Pradesh, Maharashtra, Odisha & Telangana
- A ‘National Report’ encompassing the full exercise, along with a ‘Compendium of Best Practices’ and individual ‘State Report’ for all participating states was also launched.

- The **Start-up India** initiative of the Government of India envisages to build a robust Start-up ecosystem in the country.
- **Department for Promotion of Industry and Internal Trade (DPIIT)** under the Ministry of Commerce and Industry has been conducting the States' Start-up Ranking Exercise since 2018.

# STATE START-UP RANKING

## About National Startup Awards 2023

National Startup Awards 2023 is one of the flagship initiatives undertaken by Startup India to recognize and reward outstanding startups and enablers that demonstrate exceptional capabilities.

### Objective

- Help bring to the fore progress made by the States/ UTs for promoting the Startup ecosystem.
- Foster competitiveness & propel the States/ UTs to work proactively.
- Facilitate States/ UTs to identify, learn and replicate good practices.



## Key Highlights 4<sup>th</sup> Edition

The fourth edition of the National Startup Awards has received over 2,000 applications, testifying to the increasing acceptance of the initiative among startup ecosystem stakeholders across the board.

NSA 2023 has actively engaged across diverse sectors of the economy and showcased a remarkable commitment to inclusivity.

Additionally, many applications have also nominated themselves as sustainability champions, focused on climate change, sustainability, waste management, renewables, or allied sectors.

A large number of startup applications for NSA 2023 have women in the leadership positions of their enterprises.

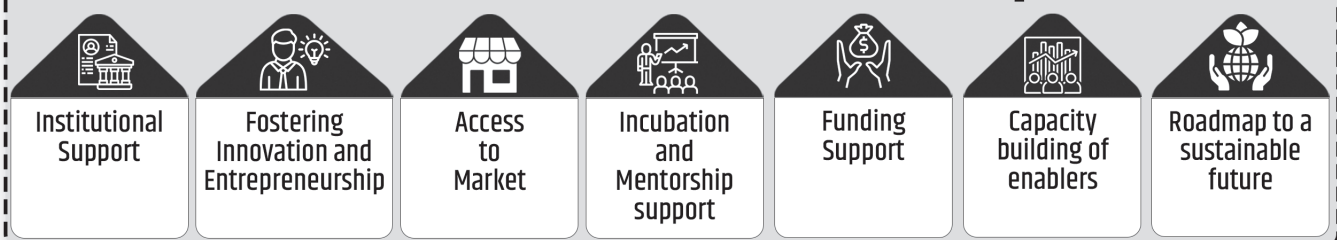
**Best Performer:**  
Gujarat, Kerala, Karnataka  
**Top Performers:**  
Tamil Nadu, Himachal Pradesh, Maharashtra, Odisha & Telangana

## States and Union Territories are classified into 5 Categories



*[The 'Beginner list' was part of earlier rankings but has been discontinued since 2019].*

## 7 broad Reform Areas for Start ups



### Status of Indian Startup Ecosystem

- The number of recognized Startups has **grown at 120% (CAGR)** over the last 7 years and stands at over one lakh Startups as of October 2023.
- The coverage of Startups has increased sixfold in the last seven years with presence in close to 670+ districts across the country.

- Close to 50% of the recognized Startups are based out of Tier 2 and Tier 3 cities.
- India has the 3<sup>rd</sup> largest Startup Ecosystem (presently 111 unicorns) globally. US and China are on the top two positions.

### Initiatives Taken to Promote Startups

- **Funds of Funds (FoF) Scheme**
  - Aims to boost the Indian Startup ecosystem by spreading contributions over the 14th and 15th Finance Commission cycles based on implementation progress, facilitating access to domestic capital.
- **Startup India Seed Fund Scheme (SISF)**
  - SISF, approved for a four-year period from 2021-22 with a corpus of Rs. 945 Cr, provides financial aid to Startups for proof of concept, prototype development, product trials, market entry, and commercialisation.
- **Startup India Investor Connect**
  - It facilitates AI-based matchmaking to connect startups with investors.
- **Startup India's Multilateral Engagements: Startup20**
  - Startup20, established during G20 India Presidency 2023, is a dedicated global platform for startups, mirroring B20 for large enterprises.
  - As a dialogue forum, it engages with G20 leaders on macroeconomic issues, supported by G20 India Sherpa and the Startup20 secretariat.

### Other Related Initiatives for Startups

- Open Network for Digital Commerce
- Fisheries Startup Grand Challenge
- Start Up India Fund
- Policy Reforms for Startups

- National Startup Advisory Council
- Aatmanirbhar Bharat ARISE-Atal New India Challenge
- National Startup Day 2024

### EXPECTED QUESTION FOR UPSC CSE

#### Descriptive Question

Q. Discuss the role of startups in India's economic growth. Also, examine the challenges faced by startups and suggest measures to promote their sustainable growth. [15 marks] [250 words]

### PARTICIPATORY NOTES

**Why in News:** Investments through participatory notes in the Indian capital markets jumped to Rs1.31 lakh crore, bouncing back from a decline in the previous month.

#### What are Participatory Notes?

- Participatory Notes are **offshore derivative instruments** that allow foreign investors to **invest in Indian securities without undergoing the regulatory procedures** required for direct investment in India.
- PNs are a **type of contract** between a **foreign investor and a registered foreign institutional investor (FII)** or its sub-account, in which the **investor is issued a note** that represents an **underlying Indian security**.
- P-Notes provide foreign investors with an **easy and quick way to invest** in Indian securities **without** undergoing the **registration process** and complying with the **regulatory requirements** that are **mandatory for direct investment in India**.
- The investor **does not** need to have a **permanent establishment** in India, and there is **no need to disclose** the identity of the ultimate beneficiary owner of the note.

#### Easy access to the Indian market

P-Notes allow foreign investors to invest in Indian securities without undergoing the regulatory procedures required for direct investment in India.

#### Flexibility

P-Notes offer investors flexibility in terms of investment and exit strategies, as they can be easily bought and sold on the open market.

### Advantages of Participatory Notes

#### Anonymity

They provide investors with the ability to invest anonymously in Indian securities, which can be useful for those who want to keep their investment strategies private.

#### No capital gains tax

Foreign investors investing through P-Notes are not subject to capital gains tax in India.

**Controversy Surrounding P-Notes**

- Concerns over their **lack of transparency** and **potential misuse** for illicit activities.
- P-Notes allow for **anonymous investment** in Indian securities, which can be used to:
  - **launder black money,**
  - **finance terrorist activities** or **pump and dump schemes,** and
  - **manipulate the Indian stock market.**

**What has SEBI done to regulate P-Notes?**

- SEBI has **tightened regulations around P-Notes,** including measures to **increase transparency** and **reduce the potential for misuse.**
- SEBI now requires all P-Note issuers to **report on a monthly basis** the details of:
  - the underlying securities,
  - the nationality of the ultimate beneficiary owner, and
  - the volume of outstanding P-Notes issued.
- FII's have had to follow KYC norms and **submit details of transactions.**
- **Anti-money laundering rules (AML)** will also be **applicable to P-Note holders.**
- Norms on **transferability of P-Notes** between two foreign investors and **increased the frequency of reporting** by P-Note issuers.

**Conclusion**

As the Indian economy continues to grow and attract foreign investment, the use of P-Notes is **likely to remain an important issue** for policymakers and investors alike.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. With reference to Participatory Notes, consider the following statements:

1. Participatory Notes are offshore derivative instruments that allow foreign investors to invest in Indian securities without undergoing the regulatory procedures required for direct investment in India.
2. The investor does not need to have a permanent establishment in India.
3. There is no need to disclose the identity of the ultimate beneficiary owner of the note.
4. Foreign investors investing through P-Notes are subject to capital gains tax in India.

How many of the above statements are correct?

(a) One only                      (b) Two only  
(c) Three only                    (d) All Four

Answer: (c) (1, 2 and 3)

Q2. Which of the following is issued by registered foreign portfolio investors to overseas investors who want to be part of the Indian stock market without registering themselves directly? [UPSC CSE 2019]

(a) Certificate of Deposit      (b) Commercial Paper  
(c) Promissory Note            (d) Participatory Notes

Answer: (d)

**NATIONAL FINANCIAL REPORTING AUTHORITY (NFRA)**

**Why in News:** Recently, the NFRA has planned to annually undertake inspections of major audit firms, including the Big Four- Deloitte, EY, KPMG, and PwC.

**About National Financial Reporting Authority (NFRA)**

- It is a **statutory body** constituted under Section 132 of the **Companies Act, 2013.**
- It is established as an **independent authority** to regulate the auditing profession and accounting standards in India.
- **Objective: To enhance the country's financial statement quality and consistency** and to guarantee that businesses and financial institutions report accurate and fair information.
- **Head Office is located at New Delhi.**

**Composition**

- The Companies Act requires the **NFRA to have a chairperson who will be appointed by the Central Government and a maximum of 15 members.**
- The appointment of such chairperson and members are subject to the following qualifications:
  - They should be having an **expertise in accountancy, auditing, finance, or law.**
  - They are required to make a declaration to the Central Government that there is no conflict of interest or lack of independence in their appointment.
  - All the members, including the chairperson, who are in full-time employment, should not be associated with any audit firm (including related consultancy firms) during their term of office and 2 years after their term.

### Responsibilities of NFRA

- Make **recommendations on the foundation and laying down of accounting and auditing policies** and standards;
- **Monitor and enforce the compliance of the accounting standards** and auditing standards:
- Oversee the **quality of service of the professionals** (such as auditors, CFOs, etc.)
- Suggest measures required for improvement in the quality of service.

### Powers

- **To investigate, either suo moto or on a reference made to it** by the Central Government, into the matters of professional or other misconduct committed by any member or firm of chartered accountants registered under the Chartered Accountants Act, 1949.
- It has the same powers as are **vested in a civil court under the Code of Civil Procedure, 1908**, while trying a suit.
- Where professional or other misconduct is proved, it shall have the **power to impose punishment**.
- Any person who is not satisfied with the order of the NFRA can then make an **appeal to the Appellate Authority**.

### Jurisdiction of NFRA

- The jurisdiction of the NFRA for the investigation of Chartered Accountants and their firms **would extend to listed companies and large unlisted public companies**, the thresholds for which shall be prescribed in the Rules.
- The Central Government can also **refer such other entities for investigation where public interest would be involved**.

## GLOBAL RISK REPORT 2024

**Why in News:** World Economic Forum (WEF) released the Global Risk Report 2024, highlighting some of the most severe risks we may face over the next decade.

### Key Highlights of the Global Risk Report 2024

- **Deteriorating Global Outlook:**
  - Various global events in 2023, including lethal conflicts, Extreme Weather Conditions, and societal discontent, have contributed to a predominantly negative outlook.
- **AI Powered Misinformation and Disinformation:**
  - Misinformation and disinformation are listed as the most severe risks over the next two years.
  - It is concerning that the boom in Generative AI chatbots like ChatGPT means that creating sophisticated synthetic content that can be used to manipulate groups of people won't be limited any longer to those with specialized skills.
- **Structural Forces Shaping Global Risks:**
  - There are four structural forces shaping global risks over the next decade: climate change, demographic bifurcation, technological acceleration, and geostrategic shifts.
  - These forces represent longer-term shifts in the global landscape, and their interactions will contribute to uncertainty and volatility.
- **Environmental Risks at the Forefront:**
  - Environmental risks, particularly extreme weather, dominate the risk landscape over all time frames.
- **Economic Strains and Inequality:**
  - The cost-of-living crisis and economic risks such as Inflation and economic downturn are significant concerns for 2024.
  - **Economic uncertainty** will disproportionately affect low- and middle-income countries, leading to potential digital isolation and worsening societal and environmental impacts.
- **Security Risks and Technological Advances:**
  - Interstate armed conflict is identified as a new entrant into the top risk rankings over the next two years.
  - Technological advances, **especially in artificial intelligence, pose security risks as they enable non-state actors to access disruptive tools**.
- **Geopolitical Shifts and Governance Challenges:**
  - A deeper **divide between global powers**, especially between the Global North and South, may lead to challenges in international governance.
  - The growing influence of states in the Global South, combined with geopolitical tensions, could reshape security dynamics and impact global risks.

### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. Consider the following statements:

1. The National Financial Reporting Authority (NFRA) is a statutory body constituted under the Indian Trust Act, 1882.
2. The NFRA is an independent authority to regulate the auditing profession and accounting standards in India.

How many of the above statements is/are correct?

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

Answer: (b)

(b) Answer:

**Recommendations**

- **Localized strategies leveraging investment** and regulation can reduce the impact of those inevitable risks that we can prepare for, and both the public and private sector can play a key role to extend these benefits to all.
- Single breakthrough endeavors, grown through efforts to **prioritize the future and focus on research and development** can similarly help make the world a safer place.
- The collective actions of individual citizens, companies and countries may seem insignificant on their own, but at critical mass they can move the needle on global risk reduction.

- Even in a world that is increasingly fragmented, **cross-border collaboration at scale** remains critical for risks that are decisive for human security and prosperity.

**What is Global Risk?**

- Global risk is defined as the possibility of the **occurrence of an event or condition which, if it occurs, would negatively impact a significant proportion of global gross domestic product, population or natural resources.**
- The Global Risks Report is an **annual study** published by the World Economic Forum ahead of the Forum’s Annual Meeting in Davos, Switzerland.









The WEF is a **Swiss nonprofit foundation** established in 1971, based in Geneva, Switzerland.

Recognized by the Swiss authorities as the international institution for public-private cooperation.

**Mission**

Committed to improving the state of the world by engaging business, political, academic, and other leaders of society to shape global, regional, and industry agendas.

**Some major reports published by WEF are**

	Energy Transition Index
	Global Competitiveness Report
	Global IT Report
	WEF along with INSEAD, and Cornell University publishes this report.
	Global Gender Gap Report
	Global Travel and Tourism Report



**Founder and Executive Chairman**  
*Klaus Schwab*

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. Global Risk Report is released by which of the following organisation?

(a) World Health Organisation  
(b) World Trade Organisation  
(c) World Economic Forum  
(d) The United Nations Conference on Trade and Development

Answer: (c)

Q2. With reference to World Economic Forum, consider the following statements:

1. It is a specialized agency of the United Nations.
2. It is an international institution for public-private cooperation.
3. It publishes the Global Gender Gap Report

How many of the above statements are correct?

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

Answer: (b)

### STRATEGIC INTERVENTIONS FOR GREEN HYDROGEN TRANSITION PROGRAMME

**Why in News:** Recently, the Ministry of New and Renewable Energy (MNRE) has published **guidelines and incentives to promote the procurement of green hydrogen** as part of the National Green Hydrogen Mission.

- Under the mission, Rs 17,490 crore has been set aside for SIGHT programme.

#### About SIGHT Programme

- It is a **subcomponent of National Green Hydrogen Mission.**
- **Aim:** To bolster domestic electrolyser manufacturing and green hydrogen production.

- In the initial stage, two distinct financial incentive mechanisms were proposed with an outlay of ₹ 17,490 crore up to 2029-30:

- Incentive for manufacturing of electrolysers
- Incentive for production of green hydrogen.

- Depending on the markets and technology development, specific incentive schemes and programmes will continue to evolve as the Mission progresses.

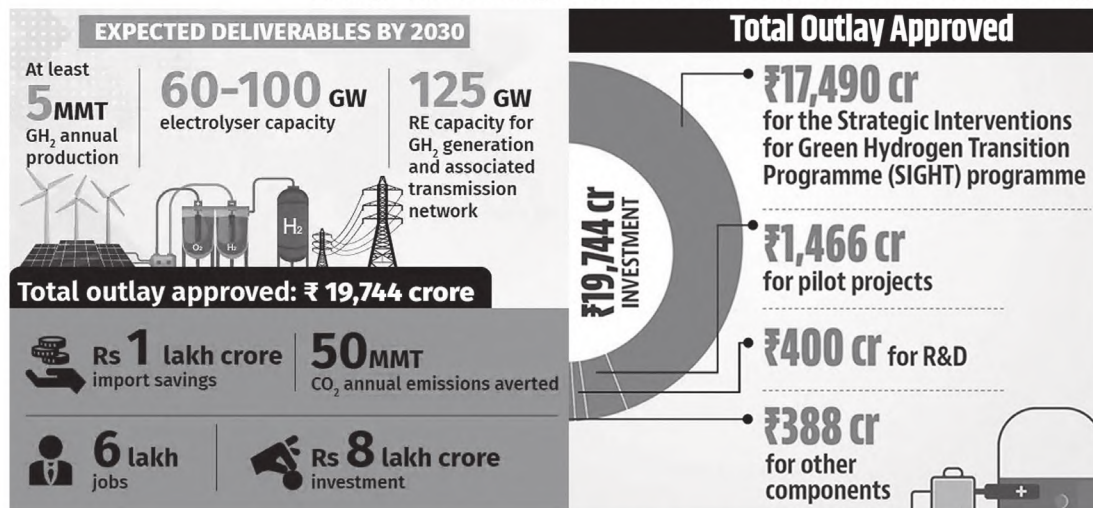
- **Solar Energy Corporation of India (SECI)** would be the implementing agency responsible for the scheme's execution.

#### About National Green Hydrogen Mission

- The overarching objective of the Mission is to make **India a global hub for the production, usage, and export of Green Hydrogen** and its derivatives.

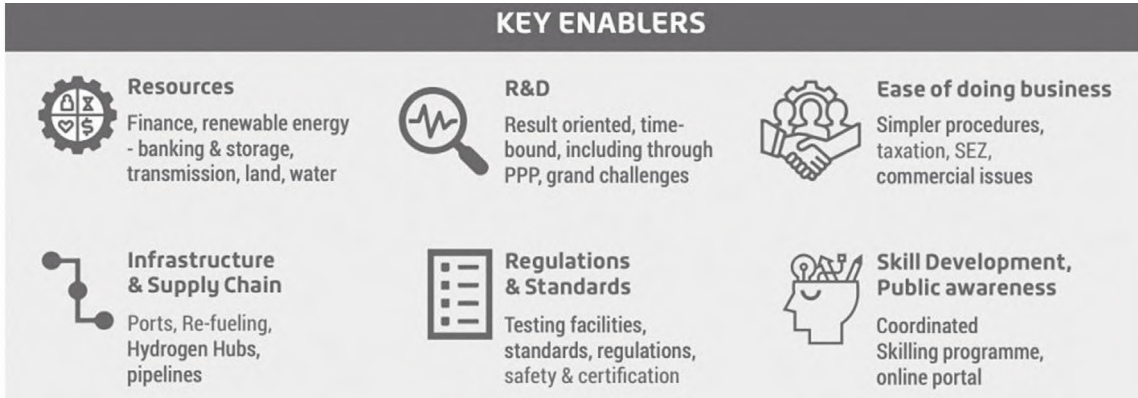
## National Green Hydrogen Mission

...Implemented by: The Ministry of New and Renewable Energy

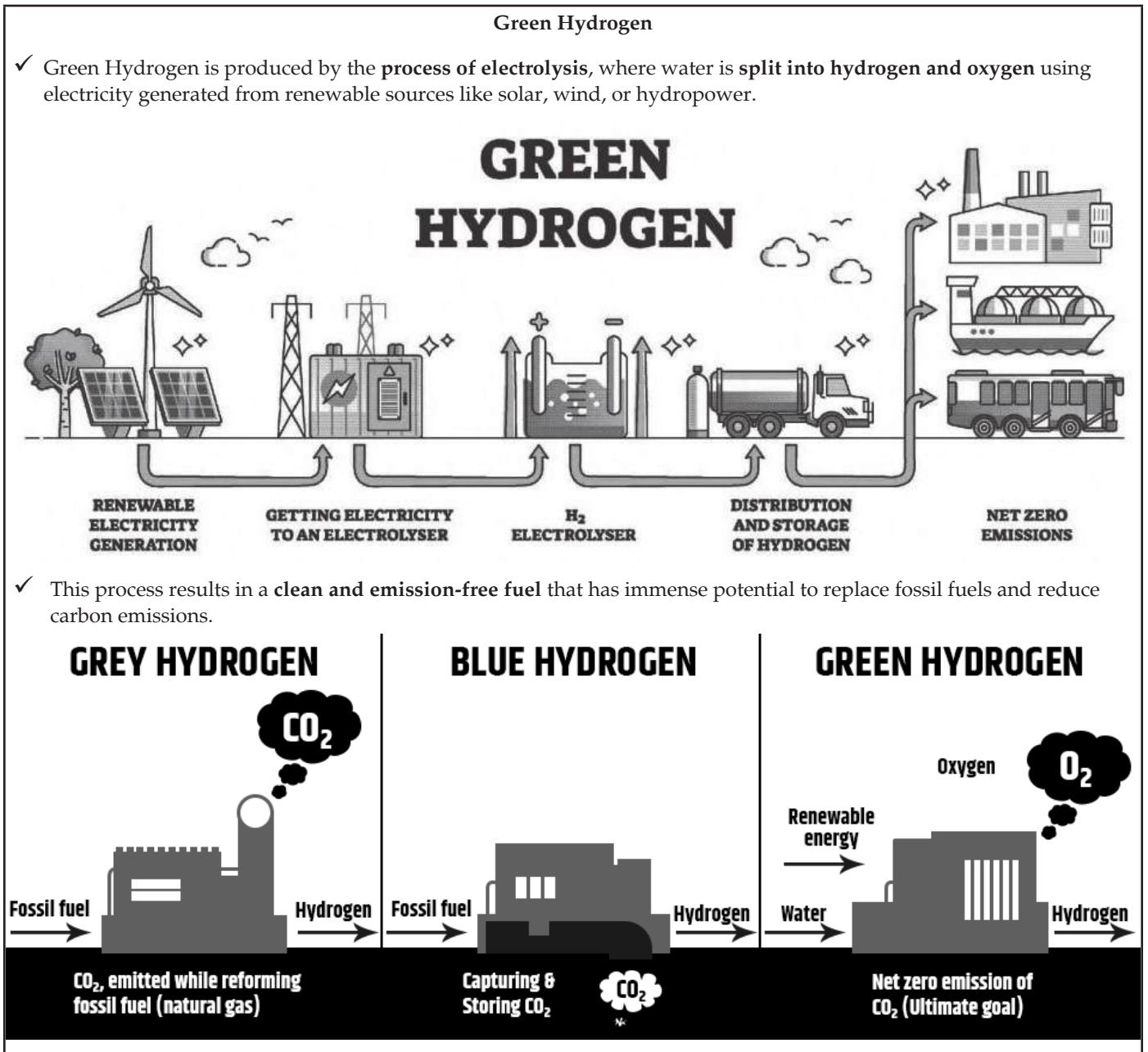


### Mission Components





- It has a **provision for supporting pilot projects** for low-carbon steel, mobility, shipping, and ports.
- The Mission **provides allocations for various sub-components** of the Mission such as SIGHT, Pilot projects, R&D etc. to fund specific selected projects.



EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQ

Q. SIGHT Programme, recently seen in the news, is related to:

- (a) Participation of Women and Girls in Science
- (b) Disaster management
- (c) Green Hydrogen
- (d) Manufacturing Drones in India

Answer: (c)

Descriptive Question

Q. Green hydrogen holds the promise of fuelling industrial growth while simultaneously reducing industrial emissions. Discuss the advantages associated with using green hydrogen. [15 marks] [250 words]

For Approach Answer, Scan



**BINTURONG AND SMALL-CLAWED OTTER**

**Why in News:** Kaziranga National Park and Tiger Reserve in Assam has received the addition of two new mammalian species, the elusive binturong (*Arctictis binturong*) and the small-clawed otter.



**Binturong**

It is the largest civet in India colloquially known as the bearcat.

**Common names**

- ▶ Asian Bearcat and the Asian Civet.

**Scientific name**

- ▶ *Arctictis binturong*

It is a generally **solitary and nocturnal animal** that spends the majority of its time moving about slowly and cautiously amongst the trees.

It has **scent glands** which are located just under its tail.

- ▶ These glands are used to mark trees and foliage to outline an individual's territory.

It belongs to the same family as other small carnivores including Civets, Genets, Mongooses, and Fossa.

The binturong is **one of only two carnivores that has a prehensile tail**. (The other is the kinkajou).

**Habitat:**

It is a medium sized carnivore that is found **Inhabiting the dense forests of South-East Asia**.

**Distribution:**

China, India, Thailand, Cambodia, Laos, Malaysia, Indonesia, the Philippines and on the island of Borneo.

**IUCN:**  
Vulnerable

**Conservation Status**  
**Wildlife**  
**Protection Act of**  
**1972:**  
Schedule I

**CITES:**  
Appendix III



**Small-clawed otter**

It exhibits partially **webbed feet and short claws**, enhancing their adeptness as hunters in aquatic environments.

**Distribution:**

- ▶ This mammal boasts a broad distribution range spanning from India eastwards to Southeast Asia and southern China. In India, it predominantly inhabits protected areas in **West Bengal, Assam, Arunachal Pradesh, Karnataka, Tamil Nadu, and certain regions of Kerala** within the Western Ghats.

**Habitat:**

- ▶ They are primarily found in **freshwater habitats**, sustaining themselves with a **diet comprising fish and crustaceans**.

**Threats:**

- ▶ Habitat destruction, deforestation, reduction in prey biomass etc.

**IUCN:**  
Vulnerable

**Conservation Status**  
**Wildlife**  
**Protection Act of**  
**1972:**  
Schedule I

**CITES:**  
Appendix I



EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQs

Q1. Consider the following statements regarding binturong:

1. It is the largest civet in India
2. The International Union for Conservation of Nature has listed it as vulnerable.

Which of the statements given above is/are correct?

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

Answer: (c)

Q2. In which of the following regions of India small-clawed otter has been discovered recently?

- (a) Assam                      (b) Uttar Pradesh  
 (c) Uttarakhand              (d) Rajasthan

Answer: (a)

**HEAVY FOG IN NORTH INDIA**

**Why in News:** A thick blanket of fog descended on several states of northern India in the last days of 2023 and first of 2024.

**Key details**

- Most of North India also experienced a dense fog that reduced **visibility in many areas to as little as 50 metres for several days.**

**What is Fog?**

- Fog is a **common weather phenomenon**. A fog is a **collection of small droplets of water produced** when evaporated water has cooled down and condensed.
- In actual, fog is nothing but a **thick cloud**, but very close to the earth's surface.
- For a thick fog/cloud to form, **temperatures should be lower** and **abundant moisture** should be available near the surface.

**Formation**

- Fog materialises whenever there is a **temperature disparity between the ground and the air**.
- During Indian winters, the fog is created when the temperature drops at night and in the early morning, **condenses on aerosols present in the atmosphere**.
- **High humidity combined with an ample presence of water vapor or moisture**, encourages foggy conditions.
- The process by which it cools plays an important role in the formation of fog.

**Mechanism**

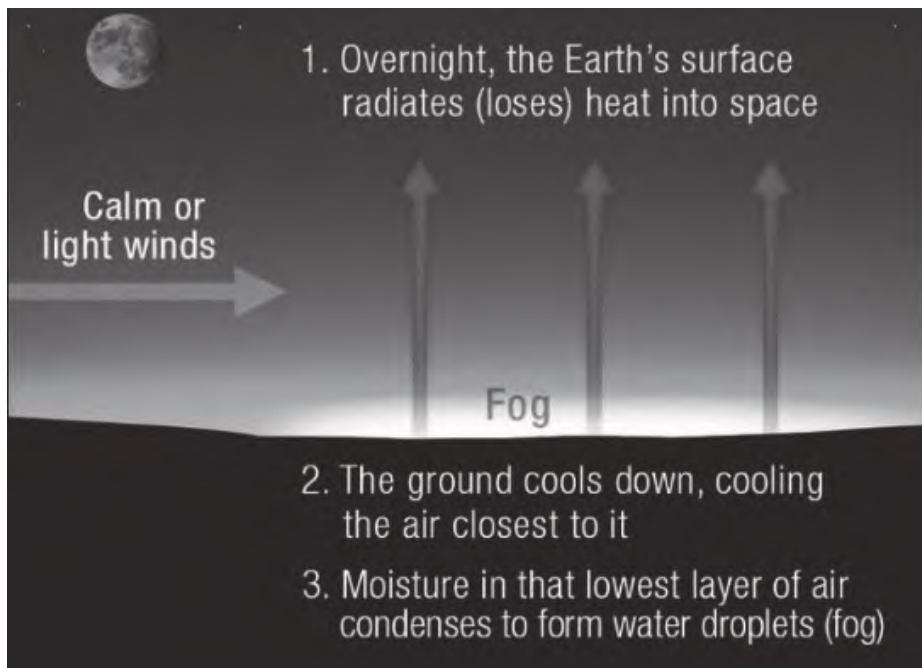
- One primary mechanism contributing to fog formation is called **Infrared Cooling**.
  - It typically occurs when the **weather is transitioning from summer to winter**.
- In the summer, the ground absorbs radiation from the Sun, becomes warmer, and moistens the air passing over it.
- When cooler weather kicks in, **this mass of warm, moist air comes in contact with processes** that cool it.
- The 'collision' prompts the water vapor in the air to **condense rapidly, giving rise to fog**.

**Other types**

Another type of fog known as **radiation fog** is prevalent and occurs when an unseasonably warm day with high humidity is followed by rapidly dropping temperatures.

**Why does North India experience fog?**

- The entire Indo-Gangetic plains are prone to formation of fog during winter season, as— **low temperatures, low wind speed, moisture availability and plenty of aerosols** — are present in this region.
- **Western Disturbances**, the Winds originating in the Mediterranean, **bring in moisture** to Northern India.



- The **Arabian Sea** also elevates the moisture content in the northern region.
- **Himalayas in the north** act as a barrier, preventing the eastward movement of the fog over the plains, leading to its concentration over the Indo-Gangetic region.
- In **Delhi's case** air pollutants such as **particulate matter** add to the load, creating smog (smoke fog).

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. Which of the following statements is correct regarding conditions for formation of fog?

- (a) Temperature should be low
- (b) Less humidity/moisture
- (c) Condensation of water droplets
- (d) Both a and c

Answer: (d)

Q2. Which of the following conditions makes the North Indian region prone to formation of fog in the winter season?

1. Western Disturbances
2. Elevation of moisture content by Arabian Sea
3. Presence of Himalayas
4. Air pollutants

Select the correct answer code:

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

Answer: (d)

**Descriptive Question**

Q. What is fog? Explain the process of formation and mechanism of fog. [15 marks] [250 words]


**BLACK TIGER**

**Why in News:** Recently, the National Tiger Conservation Authority (NTCA) has issued Standard Operating Procedure for active management towards rehabilitation of tigers from source areas at the landscape level.

**About Black Tiger**

- Melanistic tigers (Black Tigers) have been recorded **only in the Similipal Tiger Reserve**, Odisha.
- As per the 2022 cycle of the **All-India Tiger Estimation**, **16 individuals** were recorded at Similipal Tiger Reserve, out of which **10 were melanistic**.
- Based on genetic composition, the **Similipal Tiger Reserve** has been **identified** as a distinct **genetic cluster for conservation**.
- Funding assistance is provided under the ongoing **Centrally Sponsored Scheme of Integrated Development of Wildlife Habitats (CSS-IDWH)** to the Similipal Tiger Reserve.

**Black Tiger**



**IUCN Status**  
Endangered

A black tiger is a **rare colour variant** of the tiger, and is **not a distinct species** or geographic subspecies.

Pseudo-melanistic tigers have **thick stripes** so close together that the **tawny background is barely visible** between stripes.

Black tigers are black due to **pseudo-melanism**.

In **Similipal National Park**, **37% of the tiger population** has this condition, which has been linked to **isolation and inbreeding**.

**Similipal Tiger Reserve**

- ✓ Government of India declared **Simlipal** to be a **biosphere reserve** in 1994.
- ✓ **UNESCO** added the national park to its list of **biosphere reserves** in 2009.
- ✓ It is in the **Mayurbhanj** district in **Odisha**.
- ✓ **Similipal National Park** is part of the **Mayurbhanj Elephant Reserve**, which includes **three protected areas**

- Similipal Tiger Reserve,
- Hadgarh Wildlife Sanctuary and
- Kuldiha Wildlife Sanctuary.
- ✓ Similipal derives its name from '**Simul**' (silk cotton) **tree**.
- ✓ **Two tribes**, the **Erenga Kharias** and the **Mankirdias**, inhabit the reserve's forests and practise traditional agricultural activities (the collection of seeds and timber).
- ✓ **Sal** is a dominant tree species.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQs

Q1. With reference to Black Tiger, consider the following statements:

1. It is a distinct species of Tiger with a rare colour variant.
2. Their colour is black due to pseudo-melanism.
3. These species have been recorded only in the Similipal Tiger Reserve.

Which of the statements given above is/are correct?

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

Answer: (c)

Q2. Erenga Kharias and the Mankirdias tribes live in which of the following states?

- (a) Tamil Nadu      (b) Kerala  
 (c) Telangana      (d) Odisha

Answer: (d)

AARDVARKS

**Why in News:** A warming climate is negatively impacting the chances of long-term survival of aardvarks in sub-Saharan Africa.

Key details

- The burrowing nocturnal mammals (Aardvarks) are **affected** by incredibly **dry landscapes**, which isolates them and leaves them vulnerable to **rapid climate warming**.
- The **aridification** or **drying and heating** of the aardvarks' landscape, affects aardvark distribution and movement across the landscape.
- **Long-term droughts**, such as the one currently affecting the Horn of Africa region, have been made **100 times more likely** by climate change.
- Aardvarks are found over much of the southern **two-thirds of Africa** and their **habitat** is **savannah** and **semi-arid areas**.
- These mammals are a **crucial part of the ecosystem** in sub-Saharan Africa.
- They **eat termites** that can **destroy human-built structures** and their burrows create **important habitat for many other species**.

# AARDVARK

- > The aardvark is a **burrowing, nocturnal mammal** native to Africa.
- > It is the **only living species** of the order **Tubulidentata**.
- > Unlike most other insectivores, it has a long snout, **similar to that of a pig**, which is used to **sniff out food**.

**Conservation status IUCN:** Least concerned



## LOCATION AND HABITAT

- 1** Aardvarks are found in sub-Saharan Africa, where suitable habitat (savannas, grasslands, woodlands and bushland) and food (i.e., ants and termites) is available.
- 2** They spend the daylight hours in dark burrows to avoid the heat of the day.
- 3** The only major habitat that they are not present in is swamp forest, as the high-water table precludes digging to a sufficient depth.
- 4** They also avoid terrain rocky enough to cause problems with digging.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. What is Aardvarks, sometimes seen in the news?

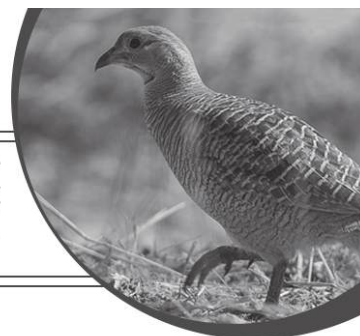
- (a) A nomadic tribe of Andaman and Nicobar Island  
 (b) A medicinal plant found in the Himalayas

- (c) A mammal from sub-Saharan Africa  
 (d) A tribal faith from the middle east

Answer: (c)

GREY FRANCOLIN

# GREY FRANCOLIN



**Why in News**

Grey Francolin (*Ortygornis pondicerianus*), a ground-dwelling bird known for its distinctive calls and cryptic plumage was reported inside the Sanjay Gandhi National Park (SGNP), in Mumbai.

## ABOUT GREY FRANCOLIN

- 1 The grey francolin (*Ortygornis pondicerianus*) is a species of francolin found in the plains and drier parts of the Indian subcontinent and Iran.
- 2 They are mainly ground-living birds and are found in open cultivated lands as well as scrub forest.
- 3 Their local name of teetar is based on their calls which is produced by one or more birds.
- 4 The Grey Francolin is native to India.
- 5 The Grey Francolin is categorized under the "Least Concern" status on the International Union for Conservation of Nature (IUCN) Red List.

## SIGNIFICANCE

The Grey Francolin is a notable bird in the context of biodiversity, contributing to the avian diversity of the Indian subcontinent.

It holds ecological importance as it plays a role in insect control and seed dispersal.



EXPECTED QUESTION FOR UPSC CSE

**Prelims MCQ**

Q. With reference to Grey Francolin, consider the following statements:

1. It is a species of bird.
2. They are mainly found in dense forests of the Indian subcontinent.
3. It is native to India.
4. It is categorized as Critically Endangered on the International Union for Conservation of Nature (IUCN) Red List, according the highest protection to the species.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Answer: (b)

## JAVA STINGAREE

**Why in News:** Recently, scientists declared the Java stingaree (*Urolophus javanicus*), a species of stingray, extinct.

**Key details**

- It's the **first marine fish** confirmed to have gone extinct due to human actions.
- The Java stingaree was a species of **stingray** in the family **Urolophidae**, known only from a **single female specimen** long caught off **Jakarta, Indonesia**.
- It lives in the **Indo-Pacific**.
- They're notable for having a **single venomous spine** on their tail and dwelling at the bottom of the sea.
- The **International Union for Conservation of Nature (IUCN)** has listed the Java stingaree as **Extinct** as it has **not been recorded** since its discovery over **150 years ago**.
- **Threats:** **Heavy fishing pressure** and **habitat degradation**.
- The Java stingaree has **only been found off Java**.
- **No new Java stingaree** specimens have emerged since the **first was discovered over 150 years ago**, and is now considered to be extinct.

- Indonesia's **only other known stingaree**, the **Kai stingaree** (*U. kaianus*), is currently considered **data deficient** but it could well be extinct too.
- It **hasn't been recorded** since being described from two specimens collected in 1874 off the Kai Islands.



**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. Java stingaree, sometimes seen in the news, refers to:

- (a) A machine language used to develop softwares
- (b) A newly identified island
- (c) A marine fish that went extinct due to human actions
- (d) A volcano off the coast of Java

(c) Answer

**PANTOEA TAGOREI**

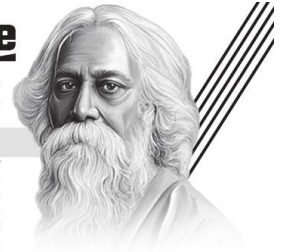
**Why in News:** A group of researchers from Visva-Bharati University's have discovered a bacteria capable of boosting plant growth and named it 'Pantoea Tagorei' after Nobel laureate Rabindranath Tagore.

**Key details**

- The bacteria has immense potential to **revolutionise agricultural practices**.
- This is a **plant growth promoting bacteria** which will prove to be a game-changer in agriculture.
- It has shown immense capability to **boost the cultivation of paddy, pea and chilli**.
- The bacteria was **discovered** in the coal mining belt of Jharkhand's **Jharia**.
- Pantoea Tagorei efficiently **extracts potassium** from soil which enhances plant growth.
- Those found in the soil of Jharia coal mines **solubilises potassium** and **phosphorus** and **fixes nitrogen** which help promote plant growth..

- The bacteria will **reduce the usage of commercial fertilisers** and eventually help to cut costs for agriculture and boost crop yield.

**Rabindranath Tagore**



- > A world-renowned poet, litterateur, philosopher and Asia's first Nobel laureate.
- > Born in **Kolkata on May 7, 1861**.
- > He was popularly known as Bard of Bengal and introduced new prose and verse forms and the use of colloquial language into Bengali literature, thereby freeing it from traditional models based on classical Sanskrit.
- > He was highly influential in introducing Indian culture to the West and vice versa.
- > **Awards:** In 1913, he became the first non-European to receive the Nobel Prize for Literature
- > Awarded a **knighthood in 1915**, but he repudiated it in 1919 as a protest against the Amritsar (Jallianwala Bagh) Massacre.
- > **Visva Bharati University, which was known as Shantiniketan** was founded by Rabindranath Tagore.
- > He wrote India's national anthem, **Jana Gana Mana**.
- > Tagore's **most notable work of poetry is Gitanjali: Song Offerings**, for which he received the Nobel Prize in Literature in 1913.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. Pantoea Tagorei, sometimes seen in the news, refers to:

- (a) A bacteria
- (b) An invasive species of plant
- (c) A newly identified planet
- (d) Recently discovered remains of a pre-cambrian animal

(a) Answer

Q2. With reference to Rabindranath Tagore, consider the following statements:

1. He became the first non-European to receive the Nobel Prize for Literature.
2. Shantiniketan was founded by Rabindranath Tagore.
3. He wrote India's national anthem, Jana Gana Mana.
4. He is the author of poetry called Gitanjali.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

(d) Answer

## RAJASTHAN PROPOSES TO DEVELOP 5 WETLANDS AS RAMSAR SITES

**Why in News:** The state government has proposed developing five wetlands in the state for the Ramsar site tag and sent a proposal to the Union environment ministry.



### Key details

- The wetlands fall in the **Central Asian Flyway** used by migratory birds that start flying to this region from **November onwards** and stay here **till February** for warmer temperatures.
- **Efforts by the State government**
  - Efforts are being made to **stop industrial effluents** and **encroachments** in these wetlands.
- The Ramsar tag helps in **better maintenance and management** of a wetland and **aids tourism** for the region.

### Other Ramsar sites in Rajasthan:

- **Sambhar Lake** - declared as a Ramsar site in 1990.
- **Keoladeo Ghana National Park** - given the Ramsar tag in 1981.

### About the Ramsar Convention

- The Ramsar Convention on Wetlands is an **intergovernmental treaty** which was adopted in 1971 in the Iranian city of Ramsar, on the southern shore of the Caspian Sea.
- The convention **came into force in India** in 1982, under which wetlands of **international importance** are declared as **Ramsar sites**.

### EXPECTED QUESTIONS FOR UPSC CSE

#### Prelims MCQs

Q1. Consider the following:

1. Khinchan bird sanctuary
2. Kanwas Pakshi Vihar
3. Menar Lake
4. Ryul Lake

How many of the above wetlands fall in the Central Asian Flyway used by migratory birds?

- (a) Only one                      (b) Only two  
(c) Only three                     (d) All four

(c) Answer

Q2. Consider the following:

1. Bhoj wetlands
2. Sambhar Lake
3. Keoladeo Ghana National park

Which of the above are Ramsar sites in Rajasthan?

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

Answer: (b)

## JIM CORBETT NATIONAL PARK

**Why in News:** Corbett Tiger Reserve (CTR) in India showcases a **successful revival of tiger populations** through wildlife conservation efforts.

### Initiatives taken at Corbett Tiger Reserve



**Digital and Intensive Patrolling**

Adoption of electronic-eye under project E-eye and increased foot patrols to combat poaching and monitor wildlife movement.



**Habitat Management**

Meticulous management of grasslands and water resources, including the development of palatable grasses and waterholes for the prey base.



**Strategic Corridors**

Establishment of wildlife corridors to facilitate movement, reduce inbreeding, and contribute to healthier tiger populations.



**Community Initiatives**

Introduction of the “Living with Tigers” initiative and the beehive fencing project “Corbee Honey” to mitigate human-wildlife conflicts.



**“Living with Tigers” initiative**

Focuses on cultivating safe practices and behaviours amidst human-wildlife conflict scenarios.



**Cultural Importance**

Recognition of the tiger’s role in India’s religious and mythological iconography led to increased public and political support.

**About Jim Corbett National Park**

- **Established in 1936 as Hailey National Park**, later declared a Tiger Reserve in 1973.
- It’s India’s first national park and the inaugural participant in the Project Tiger initiative.
- **Location:** Shivalik hills of the Himalayas, it spans Pauri Garhwal, Nainital, and Almora districts in Uttarakhand.
- Recognized for its global prominence, the reserve recorded an impressive increase in tiger density, reaching 260 in 2022 from 231 four years earlier.

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. Which of the following statement is correct about Jim Corbett National Park?

- (a) It is India’s first national park

(b) It is located in Madhya Pradesh

(c) Both a and b

(d) Neither a nor b

Answer: (a)

**BHITARKANIKA NATIONAL PARK**

# BHITARKANIKA NATIONAL PARK

**Why in News** Odisha's Bhitarkanika national park will be connected by rail as the proposed Jajpur Road-Dhamra railway line will pass through the park.

## About Bhitarkanika National Park

- **Location:** It is located in **Kendrapara district** in the state of **Odisha**.
- The national park that is sprawling across 672 km<sup>2</sup> of mangrove swamp is **situated on a delta formed by rivers, namely Brahmani, Baltarani, and Dhamra**.
- Proximity to the Bay of Bengal makes the **soil of the area enriched with salts**.
- The vegetation and species of the sanctuary are those that are mainly found in the tropical and subtropical intertidal regions.
- It is home to a multitude of **mud huts, creeks, backwaters, and estuaries**.
- The area was **designated as the Ramsar Site in 2002**.



## Flora

- ▶ It houses various species of mangrove spread across its forest region, **marshy lands, creeks, etc.**
- ▶ **Thespla, casuarinas, sundari, and Indigo bush grasses** are some of the other varieties of flora that flourish in the area.

## Fauna

▶ Bhitarkanika has one of the largest populations of **endangered saltwater crocodiles** in India.



▶ **Gahirmatha Beach**, which forms the boundary of the park in the east, is the largest colony of **Olive Ridley Sea Turtles**.



▶ Other mammals include **monkeys, jackals, common langurs, otter, sambar deer, jungle cats, fox, Mongoose, wolfs, fishing cats, hyenas, etc.**





**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. Chandaka-Dampara wildlife sanctuary is located in which of the following regions?

- (a) Western Ghats                      (b) Purvanchal
- (c) Aravallis                              (d) Eastern Ghats

Answer: (d)

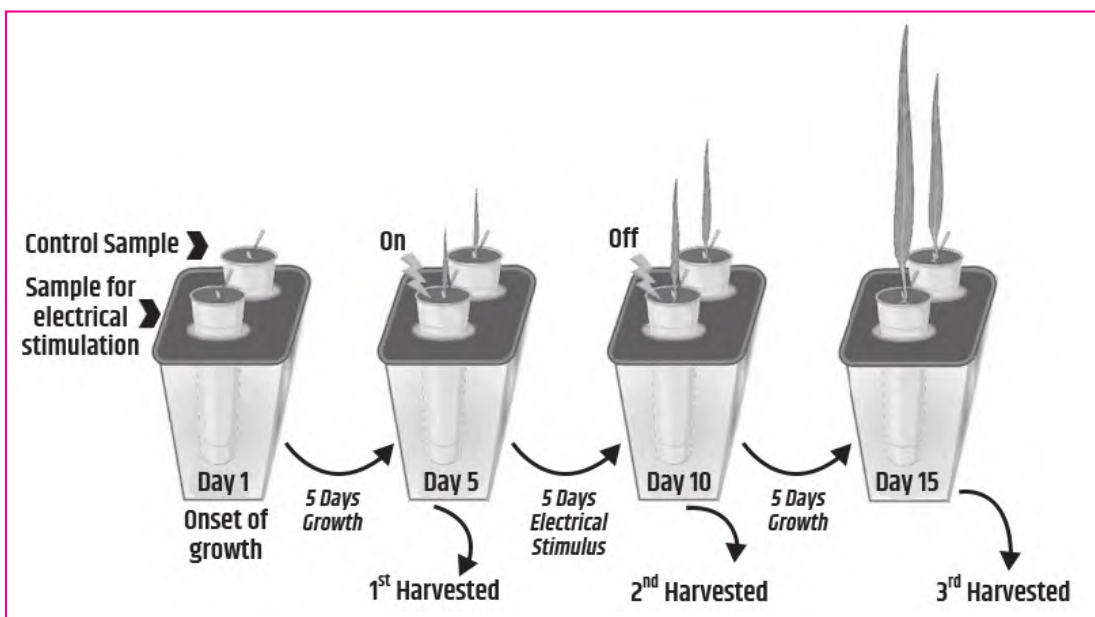
**ELECTRONIC SOIL**

**Why in News:** Scientists have developed an electrically conductive soil which they say can lead to 50 per cent more growth of barley seedlings on average in 15 days.

**Key details**

- The researchers showed that **barley seedlings** can be cultivated using **hydroponics** and they have a **better growth** rate thanks to electrical stimulation.
- This **soilless cultivation method**, known as **hydroponics**, uses a **root system** that is **stimulated electrically** through a new cultivation substrate.

- **Hydroponic cultivation** means that plants grow **without soil**, needing **only water, nutrients** and something their roots can attach to - a **substrate**.



- **Hydroponics** also enables **vertical cultivation** in large towers to maximise space efficiency.
- Crops already being cultivated in this manner include **lettuce, herbs** and some **vegetables**.
- Grains are **not typically grown in hydroponics** apart for their use as fodder.
- The team developed an **electrically conductive cultivation** substrate, tailored to hydroponic cultivation, that they call **eSoil**.
  - **eSoil** is made of **cellulose, a biopolymer** mixed with a conductive polymer called **PEDOT**.
  - **eSoil** is a **low-power bioelectronic growth** substrate that can electrically stimulate the **root system and growth** environment of plants.
- Barley seedlings grown in the conductive soil **grew up to 50 per cent more** in 15 days when their roots were stimulated electrically.
- It is a **closed system** that enables **water recirculation** so that each seedling gets exactly the nutrients it needs.
- Therefore, **very little water is required** and all nutrients remain in the system, which is not possible in traditional cultivation.

**Conclusion**

As per the researchers, combined with the **advantages of hydroponics**, such as the ability of vertical farming to utilise available space, **eSoil's low energy consumption and safety features** offer a sustainable answer to the world's growing food needs.

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. Recently scientists have developed eSoil tailored to which of the following types of cultivation?







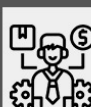

- (a) Hydroponics                              (b) Aeroponics
- (c) Deep water culture                      (d) Mixed farming

Answer: (a)

# NANOPLASTIC IN BOTTLED WATER

**Why in News:** Recently, a study revealed that bottled water of popular brands contain up to 100 times more nanoplastics than previously estimated and could pose serious health risks.

## CHAHAL's PERSPECTIVE ON Nanoplastic Pollution

<h3>Impacts</h3>		<h4>Marine Ecosystem</h4>  <p><b>Bioaccumulation:</b> Nanoplastics are ingested by marine organisms, leading to bioaccumulation in the food chain, with potential harm to larger marine species, including fish and marine mammals.</p>
		<h4>Human Health</h4>  <p><b>Nanoplastics in seafood pose a risk to human health</b> through the consumption of contaminated fish and shellfish. While the direct health impact is not fully known, exposure to nanoplastics may <b>induce inflammatory responses</b> in living organisms.</p>
<h4>Marine Ecosystem</h4>  <p><b>Soil Contamination:</b> Nanoplastics in soil can alter soil structure and impact plant growth potentially affecting agricultural productivity. <b>Plant Uptake:</b> Nanoplastics may be taken up by plants potentially entering the food chain and affecting human health.</p>	<h4>Persistence</h4>  <p>Nanoplastics persist in the environment, <b>leading to prolonged contamination and potential ecosystem disruption.</b></p>	<h4>Ecosystem Resilience</h4>  <p>Nanoplastics contribute to biodiversity loss as certain species are vulnerable to nanoplastic exposure, impacting ecosystem resilience.</p>
<h3>Way Forward</h3>		<h4>Waste Management &amp; Recycling</h4>  <p>Improve waste collection systems to minimize the release of macroplastics into the environment, recognizing that nanoplastics often originate from the breakdown of larger plastic items.</p>
		<h4>Innovation and Technology</h4>  <p><b>Nanoplastic Filtration Systems:</b> Develop innovative filtration systems for wastewater treatment plants to capture and remove nanoplastics before they enter aquatic environments. <b>Biodegradable Plastics:</b> Invest in research and development of biodegradable plastics that break down into harmless components, reducing the persistence of plastic particles in the environment.</p>
<h4>Regulatory Measures</h4>  <p>Implement regulations that restrict or ban the intentional use of nanoplastics in consumer products, especially in cosmetics, personal care items, and other applications where intentional production is unnecessary. <b>Microplastic-Free Certification:</b> Establish standards and certifications for products that are free from intentional micro and nanoplastics.</p>	<h4>Consumer Awareness &amp; Behavior</h4>  <p>Launch public awareness campaigns to educate consumers about the sources and impacts of nanoplastic pollution, encouraging responsible plastic use and disposal.</p>	<h4>Research and Monitoring</h4>  <p><b>Funding for Nanoplastic Research:</b> Allocate research funding to better understand the sources, behavior, and ecological impacts of nanoplastics including studies on their potential health effects on humans.</p>
<h4>Corporate Responsibility</h4>  <p><b>Extended Producer Responsibility (EPR):</b> Implement EPR programs, making producers responsible for the entire life cycle of their products, including proper disposal and recycling.</p>	<h4>Community Engagement</h4>  <p><b>Community Cleanup Initiatives:</b> Mobilize communities to participate in cleanup initiatives focused on removing plastic debris from natural environments, preventing further fragmentation into nanoplastics.</p>	

### Findings of Key details

- A typical 1 litre bottle of water contains some **240,000 plastic fragments** on average.
  - About **90%** of these particles are nanosized, posing a **higher risk to human health.**
- **Nanoplastics** pose a greater threat to human health **than microplastics** because they're small enough to **penetrate human cells**, enter the bloodstream and impact organs.
- Nanoplastics can also pass through the **placenta to the bodies of unborn babies.**

### Note

The world produces **more than 450 million tons of plastics** each year, much of which eventually ends up in landfills.

The vast majority of **plastic does not degrade naturally**, but breaks down into smaller pieces over time.

### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. Consider the following:

1. Bioaccumulation
2. Soil Contamination
3. Biodiversity loss
4. Sea level rise

How many of the above are adverse impacts of nanoplastics?

- (a) Only one      (b) Only two  
(c) Only three    (d) All four

ANSWER: (c)

**BHARAT SPACE STATION**

**Why in News:** Recently, ISRO has said that the country's first human space flight programme is expected to be launched by the end of 2025.

**Key details**

- India is poised to establish its very own 'Bharat Space Station' by 2035.
- It also involves the development of a **novel rocket** by ISRO, capable of shouldering an impressive load ranging between **20 to 1,215 tonnes**.
- Currently, India's **rocket technology** is equipped to transport only **10 tonnes**, indicating a significant leap in capacity.
- The **first module** of the space station, which will be robotic and **weigh 8 tonnes**, is expected to be launched in **five years**.

**Significance of having space station**

- ✓ It is useful for **collecting meaningful scientific data**, especially for biological experiments.
- ✓ Provide platforms for greater number and length of scientific studies than available on other space vehicles.
- ✓ Space stations are used to **study the effects of long-term space flight on the human body**.

**EXPECTED QUESTION FOR UPSC CSE****Prelims MCQ**

Q. With reference to Bharat Space Station, consider the following statements:

1. The launch date of Bharat Space Station is 2025.
2. It will be launched by Defence Research and Development Organisation.
3. Under this project a rocket will be developed to carry upto 2000 tonnes of payload.

How many of the above statements are correct?

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

(d) :Answer

**ANTI-MICROBIAL RESISTANCE**

**Why in News:** Survey conducted by the **National Centre for Disease Control (NCDC)** highlighted several key findings regarding the prescription and use of antibiotics in hospitals amidst **growing concerns about Antimicrobial Resistance (AMR)**.

**KEY FINDINGS OF THE SURVEY****Preventative Use of Antibiotics**

Almost half of the surveyed patients (55%) were prescribed antibiotics for prophylactic indications, meant to prevent infections, rather than for therapeutic purposes (45%) to treat infections.

**Antibiotic Prescription Patterns**

Only a small fraction (6%) of patients were prescribed antibiotics after a confirmed diagnosis of the specific bacteria causing their illness (definitive therapy).

**Lack of Specific Diagnosis**

94% of patients received antibiotics before a definitive medical diagnosis was confirmed.

**Variation Among Hospitals**

There were wide variations in antibiotic prescription rates among the hospitals, ranging from 37% to 100% of patients being prescribed antibiotics.

**Drivers of AMR**

The NCDC survey notes, that one of the main drivers for the development of antibiotic resistance is the excessive and inappropriate use of antibiotics.

**About Antimicrobial Resistance (AMR)**

- Antimicrobial resistance is the resistance acquired by any microorganism (bacteria, viruses, fungi, parasites, etc.) against antimicrobial drugs (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics) that are used to treat infections.
  - Standard treatments become ineffective, infections persist, and may spread to others.
- It is a **natural phenomenon as bacteria evolve**, making drugs used to treat infections less effective.

- Microorganisms that develop antimicrobial resistance are sometimes referred to as **superbugs**.
- The World Health Organization (WHO) has identified AMR as **one of the top ten threats to global health**.

**Reasons for the Spread of AMR**

- **High burden of communicable diseases**, such as tuberculosis, diarrhoea, respiratory infections, etc. that require antimicrobial treatment.
- **Overburdened Public Health System** limits the laboratory capacity for etiology-based diagnosis and appropriately targeted treatment.
- **Hygiene lapses in hospitals and clinics** facilitate the spread of resistant bacteria.
- **Overprescribing by doctors under pressure from patients** (often self-medication), incomplete antibiotic courses, and broad-spectrum antibiotics used unnecessarily create selective pressure for resistant bacteria.
- Unregulated **over-the-counter availability** and affordability of antibiotics fuel self-medication and inappropriate use.
- **Low public understanding of AMR** and proper antibiotic use encourages misuse.
- **Lack of adequate monitoring systems** makes it difficult to track and understand the scope of AMR.

**Implications of the Spread of Antimicrobial Resistance**

- AMR can render previously effective **antibiotics ineffective against bacterial infections**.
- Treating resistant infections often **requires more expensive and prolonged therapies**, increased hospital stays, and sometimes more invasive procedures.
- AMR makes certain **medical procedures riskier**.
  - Surgeries, cancer chemotherapy, and organ transplants become more hazardous due to the increased risk of infections that are resistant to standard antibiotics.
- As resistance grows, the **available arsenal of effective antibiotics diminishes**.

**Measures Taken to Address AMR**

**Indian**

- ✓ **National Programme on AMR containment** Indian Council of Medical Research (ICMR) has taken **initiatives to develop new drugs /medicines through international collaborations** in order to strengthen medical research in AMR.
- ✓ ICMR has initiated **antibiotic stewardship program (AMSP)** on a pilot project across India to control misuse and overuse of antibiotics in hospital wards and ICUs.
- ✓ DCGI has **banned 40 Fixed Dose Combinations (FDCs)** which were found inappropriate.

**Global Measures**

- ✓ **World Antimicrobial Awareness Week (WAAW):** Held annually since 2015, WAAW is a global campaign that aims to raise awareness of AMR worldwide and encourage best practices.
- ✓ **The Global Antimicrobial Resistance and Use Surveillance System (GLASS):** WHO launched the GLASS in 2015 to continue filling knowledge gaps and to inform strategies at all levels.

**Way Forward**

- **Inform the public** about AMR, its dangers, and how to prevent it.
- **Regulation of Antibiotic Sales:** Implement stricter regulations on the sale of antibiotics over the counter, requiring prescriptions for all antibiotics.
- **Expand AMR Surveillance:** Establish a nationwide AMR surveillance system to track the prevalence and spread of resistant bacteria in humans, animals, and the environment.

**Conclusion**

In order to ensure that no new pandemic arises due to Antimicrobial resistance, a whole of government and whole of society approach is needed to combat the challenge of AMR.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. Consider the following statements regarding Antimicrobial Resistance (AMR):

1. Antimicrobial resistance is the resistance acquired by humans against antimicrobial drugs.
2. The World Health Organization (WHO) has identified AMR as one of the top ten threats to global health.
3. Antimicrobial drugs work against only bacterial and viral infections.

How many of the above statements are correct?

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

(a) ::Answer

**Descriptive Question**

Q. Is Anti-Microbial resistance the new emerging global health challenge. Critically examine. [15 marks] [250 words]

## HEPATITIS A VACCINE

**Why in News:** Indian Immunologicals Ltd (IIL) a wholly owned subsidiary of National Dairy Development Board (NDDB) launched India's first indigenously developed Hepatitis A vaccine 'Havisure'.


### About Havisure vaccine

- It is a **two-dose vaccine**: first dose administered at above 12 months of age and the second at least six months after the first dose.

- The vaccine is recommended for children as part of the routine immunisation as well as for individuals at risk of exposure or travel to the regions with high hepatitis A prevalence.
- People with occupational risk of infection and suffering from chronic liver diseases also require Hepatitis A vaccination.


# HEPATITIS

### WHAT IS HEPATITIS ?




Hepatitis is inflammation of the liver usually caused by a viral infection. But liver damage from alcohol consumption or in rare cases autoimmune conditions can cause the inflammation.

### How does the virus spread?




**Hepatitis A and E:** Lack of food hygiene, contaminated water and sub-standard sanitary facilities


### SPREAD BY INFECTED BLOOD OR BODILY FLUIDS




Types B and C often require treatment to cure. Chronic cases can lead to cirrhosis and liver cancer.

Type D can infect only people with type B hepatitis 

### TYPES OF VIRAL HEPATITIS



### SPREAD BY FOOD OR WATER CONTAMINATION




Types A and E usually don't require treatment. Recovery time is one to two months.

### Gradual death:


**1.4** million people die worldwide from hepatitis every year

### VACCINATION POSSIBLE



What vaccines are available for which types of hepatitis?

- Hepatitis A
- Hepatitis B
- Hepatitis D
- Hepatitis E
- Hepatitis C



### Treatment:

**90%** of hepatitis C patients can be healed within three to six months

Disease	Pathogen	Symptoms	Incubation Period	Method of Transmission	Diagnostic Test
Hepatitis A	HAV, Picornaviridae	Fever, headache, malaise, jaundice	2-6 weeks	Ingestion	IgM antibodies
Hepatitis B	HBV, Hepadnaviridae	Severe liver damage, chronic disease occurs	3-26 weeks	Parenteral, sexual contact	IgM antibodies
Hepatitis C	HCV, Flaviviridae	Same as HBV, more chronic	2-33 weeks	Parenteral	PCR of viral RNA
Hepatitis D	HDV, Deltaviridae	Severe liver damage, high mortality rate	6-26 weeks	Parenteral, when coinfectd with HBV	IgM antibodies
Hepatitis E	HEV, Caliciviridae	Pregnant women may be at high risk and show high mortality, not chronic disease	2-6 weeks	Ingestion	IgM antibodies PCR of viral RNA

**Government Initiatives vis-a-vis Hepatitis**

- **National Viral Hepatitis Control Program:** To end viral hepatitis as a public health threat in India by 2030.
- **India's Universal Immunization Programme (UIP)** provides free of cost vaccination against Hepatitis B among eleven vaccine-preventable diseases.

**About Hepatitis A**

- It is an **inflammation of the liver** caused by the hepatitis A virus (HAV).
- The virus is primarily spread when an uninfected (and unvaccinated) person ingests food or water that is contaminated with the faeces of an infected person.
- Hepatitis can be an **acute (short-term) infection or a chronic (long-term) infection**.
- There are different types of hepatitis with different causes:
  - Viral hepatitis is the most common type. It is caused by one of several viruses -- hepatitis viruses A, B, C, D, and E.
- Alcoholic hepatitis is caused by heavy alcohol use.
- Toxic hepatitis can be caused by certain poisons, chemicals, medicines, or supplements.
- **Autoimmune hepatitis** is a chronic type in which your body's immune system attacks your liver.
  - The cause is not known, but genetics and your environment may play a role.
- **Hepatitis B, hepatitis C, and hepatitis D spread through contact with the blood** of someone who has the disease.
- Hepatitis B and D may also spread through contact with other body fluids.
  - This can happen in many ways, such as sharing drug needles or having unprotected sex.

**Symptoms**

- Some people with hepatitis do not have symptoms and do not know they are infected.
- **Common symptoms include:** fever, malaise, loss of appetite, diarrhoea, nausea, abdominal discomfort, dark-coloured urine and jaundice.

**Treatment:**

- ✓ There is **no specific treatment for hepatitis A**.
- ✓ Recovery from symptoms following infection may be slow and can take several weeks or months.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. 'Havisure', sometimes seen in the news, is related to:

- (a) Hepatitis A vaccine
- (b) A formula developed by scientists to reduce malnutrition

- (c) An organic pesticide
- (d) An initiative for mental wellbeing of school going children

(a) :Answer

Q2. With reference to Hepatitis A, consider the following statements:

1. It is an inflammation of the kidneys.
2. There is no specific treatment for hepatitis A.
3. It is transmitted through a bacterium.

How many of the statements given above are correct?

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

(a) :Answer

**LEIF ERIKSON LUNAR PRIZE**

**Why in News:** Recently, the Indian Space Research Organisation (ISRO) bestowed with the prestigious Leif Erikson Lunar Prize by Iceland's Husavik Museum.

**Key details**

- This recognition is a testament to ISRO's steadfast **commitment to lunar exploration** and the **remarkable success** of its most recent lunar mission, **Chandrayaan-3**.

**About the Prize**

- The Leif Erikson Lunar Prize is named after the **Norse explorer Leif Erikson**.
- It is a highly regarded accolade presented by the **Exploration Museum** in Husavik, **Iceland**.
- This distinction is reserved for **individuals or entities** that have made noteworthy **contributions to the lunar exploration** field.

**Brief about Chandrayaan-3**

- Chandrayaan-3 achieved a historic milestone by successfully **landing near the Moon's South Pole** on August 23, 2023.
- A pivotal element in the mission's success was the **Vikram lander**, equipped with **Chandra's Surface Thermophysical Experiment (ChaSTE)**.
- This innovative instrument provided crucial **data on lunar surface temperature**, reaching a depth of **10 centimetres below the lunar surface**.

- Additionally, the **Pragyan rover** conducted **in-situ experiments**, significantly contributing to our understanding of the Moon's unique characteristics.
- The **objectives of Chandrayaan-3** included:
  - safely landing on the lunar surface,
  - demonstrating rover capabilities on the Moon
  - conducting in-situ scientific experiments.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. Which of the following lunar missions, recently received the esteemed Leif Erikson Lunar Prize?

- (a) Luna-25 of Russia      (b) Peregrine Mission 1 of USA  
 (c) Chandrayan-3 of India    (d) SLIM mission of Japan

Answer: (c)

Q2. With reference to Chandrayaan-3, consider the following statements:

1. It was successful in landing near the Moon's south pole.
2. The Pragyan rover in this mission carried Chandra's Surface Thermophysical Experiment (ChaSTE).
3. The Vikram Lander conducted in-situ experiments on the moon's surface.

How many of the above statements are correct?

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

Answer: (a)

**BUBBLE BABY SYNDROME**

**Why in News:** Recently, a two-month-old child with bubble baby syndrome underwent bone marrow transplant (BMT) in India.

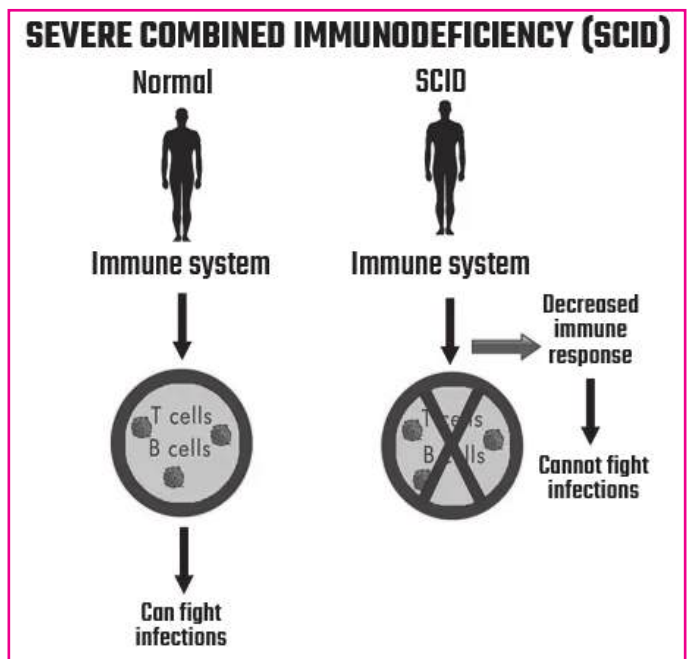
**About Bubble Baby Syndrome**

- It is a **very rare genetic disorder** that causes life-threatening problems with the **immune system**.
  - It is medically known as **Severe Combined Immunodeficiency (SCID)**.
- It is a type of primary immune deficiency.

- It is known as "**living in the bubble**" syndrome because living in a normal environment can be fatal to a child who has it.

**About SCID**

- As the baby develops, the immune system starts in the bone marrow.
- SCID is a "**combined**" **immune-deficiency** because it affects both of these infection-fighting white blood cells.
- In SCID, the **child's body has too few lymphocytes or lymphocytes** that don't work properly.
- Because the immune system doesn't work as **it should**, **it can be difficult or impossible for it to battle the germs**.

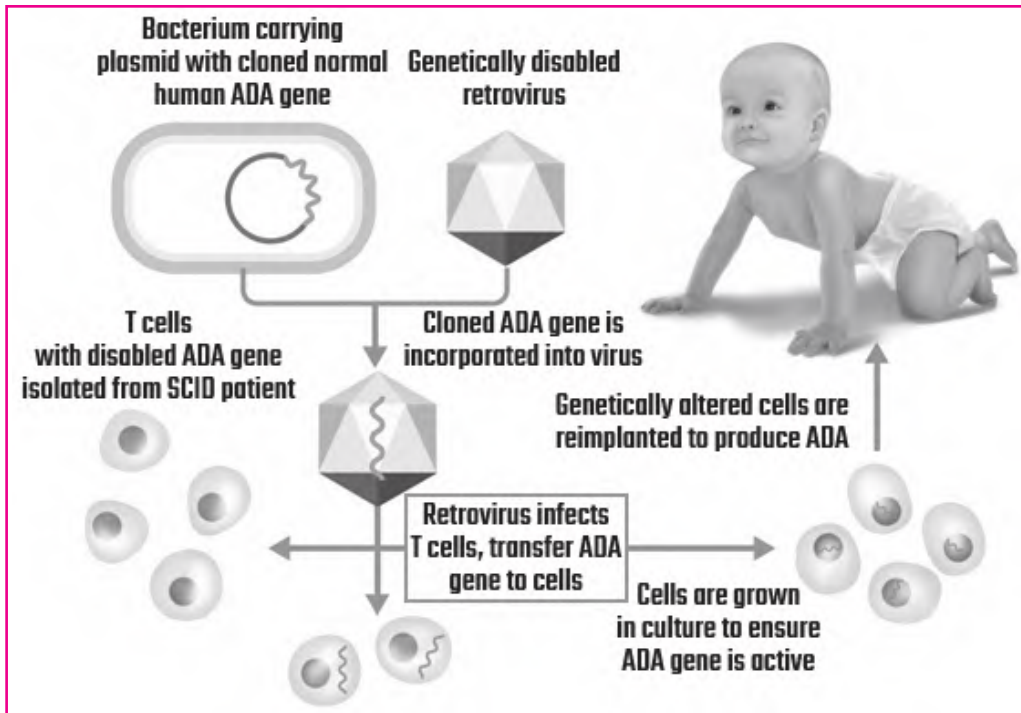


**Causes**

- Inherited mutations in more than a different genes cause SCID.
- Signifying that one or both birth parents pass down the disease to their child.

**Treatment**

- The most common treatment is a stem cell transplant (also called a bone marrow transplant).
- The child receives stem cells from a donor.
- The hope is that these new cells will rebuild the child's immune system.



**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. Which of the following statements is/are correct?

1. Bubble baby syndrome is an Immunodeficiency disease in children.
2. At present, there is no vaccine available for Bubble baby syndrome.

Select the correct answer using the code given below:

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

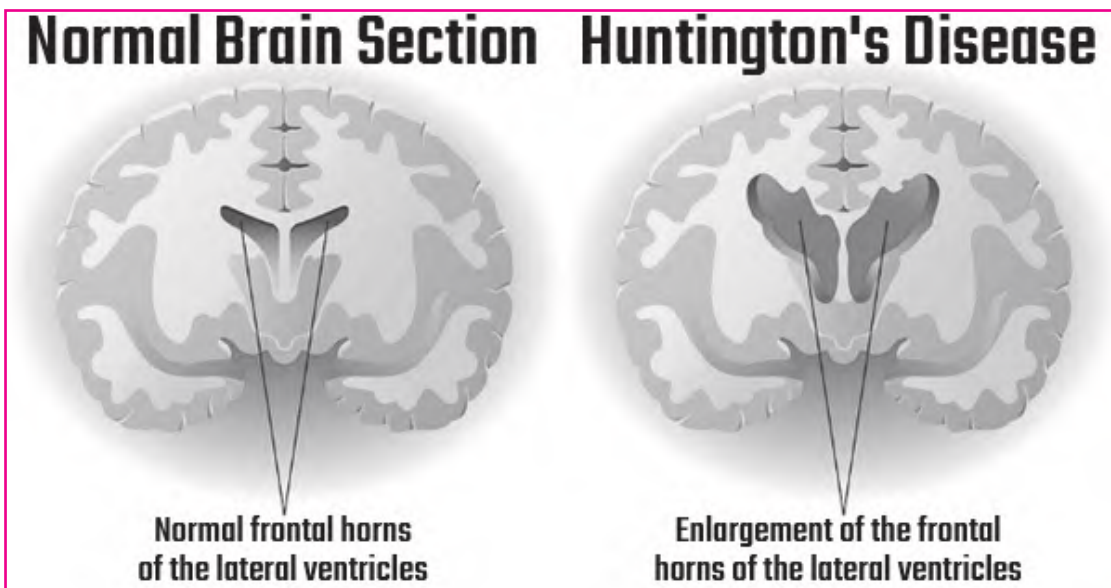
Answer: (c)

**HUNTINGTON'S DISEASE**

**Why in News:** The medical genetics clinic in the Nizam's Institute of Medical Sciences, Hyderabad, sees three or four people with Huntington's disease.

**About Huntington's disease (HD)**

- Huntington's disease is a **rare and incurable hereditary disorder** that **damages brain cells**.
- **Early signs** include **coordination problems** and **memory lapses**.
- It happens when a **gene mutation** causes **toxic proteins** to collect in different parts of the brain.
- It leads to symptoms that may impact **movement, behavior, and cognition**.



### Causes of Huntington's disease

- HD results from a **gene mutation** on **chromosome 4** of **huntingtin** (HTT).
- This genetic mutation is caused by the **excessive production** (or trinucleotide repeats) of **cytosine, adenine, and guanine** (CAG).
  - These are three **building blocks of DNA**.
- Normally, **CAG repeats 36 times** or less.
- But, in **HD** it repeats **36 times or more**.

- This change results in a **longer form of the HTT protein**, which is then cut into **small harmful cells** that could **bind together**.
- As the toxic protein **accumulates in the brain**, it begins to **damage certain brain cells**.

### Treatment for Huntington's disease

- HD is currently **incurable**.
- Treatment **cannot reverse its progression** or slow it down.
- **Medication** and **other therapies** may help people **manage some of their symptoms**.

**Huntington disease** is a rare genetic disease that affects movement, thinking, and behavior.

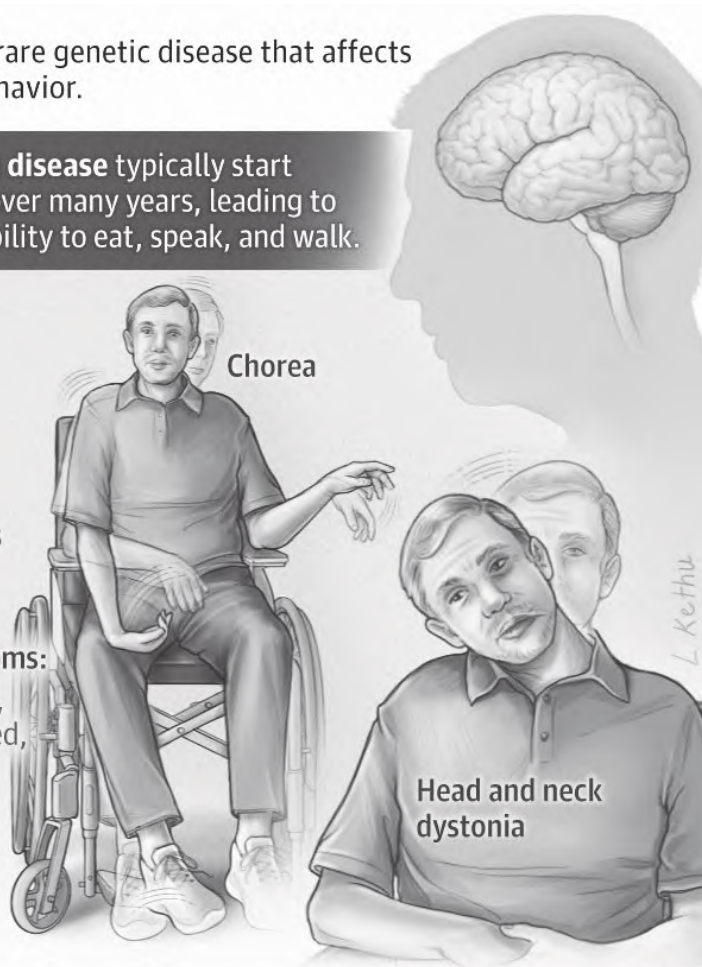
**Symptoms of Huntington disease** typically start in middle age and worsen over many years, leading to dementia and loss of the ability to eat, speak, and walk.

#### Motor function symptoms:

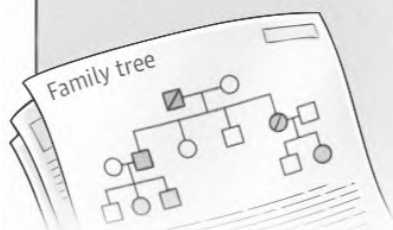
- Jerking or writhing, dance-like movements (chorea)
- Muscle contractions (dystonia)
- Impaired eye movements
- Slurred speech

#### Thinking and mood symptoms:

- Disturbances in planning, memory, processing speed, and judgment
- Depression, anxiety, apathy, agitation, and psychosis



**Genetic testing** can diagnose or screen for Huntington disease.



A person born to a parent with Huntington disease has a 50% chance of developing the disease.

*Counseling is highly recommended prior to and after genetic testing.*



**Treatment of Huntington disease** focuses on quality of life and symptom management.

EXPECTED QUESTIONS FOR UPSC CSE

Prelims MCQs

Q1. Huntington’s disease, sometimes seen in the news, affects which part of the body?

- (a) Heart
- (b) Brain
- (c) Kidney
- (d) Eyes

Answer: (b)

Q2. With reference to Huntington’s disease, consider the following statements:

1. It is a rare genetic disorder.
2. There is no cure for the disease.
3. It is caused by the inadequate production of cytosine, adenine, and guanine.

How many of the above statements are correct?

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

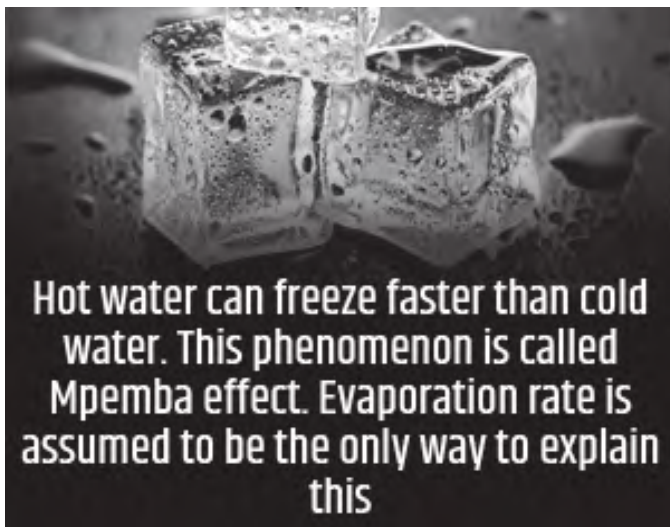
Answer: (b)

**MPEMBA EFFECT**

**Why in News:** Mpemba effect captivates scientists due to its complex interplay of physical mechanisms.

About Mpemba effect

- **Fast-freezing of hot water** is known as the Mpemba effect.
- This effect is named after a Tanzanian schoolboy called **Erasto Mpemba**. He brought attention to this counterintuitive phenomenon **in 1969**.



Possible explanations of this effect

After numerous experiments to determine the causes of this confusing phenomenon, **findings remain inconclusive**.

- **Microbubbles** remaining **suspended in heated water** from boiling are identified as one contributing factor. These bubbles **facilitate convection, expediting heat transfer** as the water gradually cools.
- Additionally, **warmer water**, which evaporates more readily, further aids in **heat removal as evaporation** inherently absorbs heat.
- The effectiveness of both **convection and heat transfer** is heightened in warmer water due to its lower density.
- Another potential influence may be the presence of **frost in colder water**, which acts as an insulator, potentially **impeding heat loss**.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Which phenomenon is referred to as the "Mpemba effect"?

- (a) Slow-cooling of cold water
- (b) Fast-freezing of hot water
- (c) Rapid evaporation of warm water
- (d) Gradual condensation of steam

Answer: (b)

**PREVALENCE OF ANAEMIA IN INDIA**

**Why in News:** The Indian Council of Medical Research (ICMR) has invited Expression of Interest (EoI) from the eligible organisations, companies and start-ups manufacturing non-invasive haemoglobinometer useful in effective screening of anaemia.

Key details

- The **test and treat strategy**, for its effective implementation, requires a simple, easy-to-use **non-invasive haemoglobinometer** which will be acceptable to all.
  - A hemoglobinometer or *haemoglobinometer* (British English) is a **medical device** used to **measure hemoglobin concentration** in blood.
- Over the past few years, several ‘**Make in India**’ **non-invasive haemoglobinometer** devices have become available.
- These devices **need to be validated** to establish the accuracy, bias, and precision of the non-invasive point-of-care methods before their use can be recommended in the programme.

- According to the Health Ministry, assessment of anaemia in India is being **shifted** to the new **Diet and Biomarkers Survey in India (DABS-I)**, to **map diet, nutrition and health status** and provide the correct estimate of anaemia among the rural and urban population.

#### About DABS-I

- ✓ DABS-I is a comprehensive **national-level dietary survey**, which will **define food and nutrient adequacy** by collecting individual dietary intake data of different age-groups.
- ✓ The study will also provide **nutrient composition data on cooked and uncooked foods** from various regions of the country for the **first time**.

#### About Anaemia

- World Health Organization (WHO) calls anaemia a condition in which the **number of red blood cells** or the **haemoglobin concentration** within them is **lower** than normal.
- **Haemoglobin** is needed to **carry oxygen** and if there are **too few red blood cells**, or not enough haemoglobin, there will be a **decreased capacity of the blood** to carry oxygen to the body's tissues.
- It results in symptoms such as **fatigue, weakness, dizziness** and **shortness of breath** among others.

## WAYS TO TACKLE ANAEMIA



### CAUSES

- Iron and nutritional deficiency
- Blood loss during menstruation
- Worm infections of the intestine
- Chronic kidney ailments, hypothyroidism and endocrine abnormalities
- Body unable to absorb iron due to medical reasons



### SYMPTOMS

Weakness, fatigue, shortness of breath, giddiness, headache, Increased heartbeat, pale and dry skin and irritation in mood.

### HOW TO DIAGNOSE

- Blood tests to detect the blood components
- RBC and WBC count
- Complete Blood Picture (CBP) Test
- Bone marrow exam to find iron storage capacity of body

## TREATMENT FOR ANAEMIA

- Proper balanced diet. Vegetables rich in iron include spinach, carrots, radish, beetroots, tomatoes, potatoes and green leafy vegetables. Fruits like bananas, apples, pomegranate, sapota.
- Iron supplements only under medical advice.
- In some cases, blood transfusion



#### Prevalence of anaemia in India

- In India, the prevalence of anaemia among **six groups** as per the National Family Health Survey 5 (2019-21) is:
  - 25% in **men** (15-49 age group),
  - 57% in **women** (15-49),
  - 31.1% in **adolescent boys** (15-19),
  - 59.1 % in **adolescent girls**,
  - 52.2 % in **pregnant women** (15-49) and
  - 67.1% in **children** (6-59).
- The WHO defines anaemia in **children aged under five years** and **pregnant women** as a haemoglobin concentration **<110 g/L** at sea level, and anaemia in **non-pregnant women** as a haemoglobin concentration **<120 g/L**.

## Fighting Affliction

**Centre worried over anaemia case increase despite several initiatives**

**EAC will submit observations to PMO, to lay out a containment roadmap**

**NFHS-5 shows an increase in anaemia across all 7 categories**

**Who's Anaemic?**

- 67.1% children aged 6 months to 5 years**
- 57.2% non-pregnant women**
- 57% of females in 15-49 years age group**
- 25% of males in 15-49 years age group**

### Need for surveys on anaemia

- An indicator of public health
  - Data on anaemia remains an important indicator of public health since anaemia is related to **morbidity and mortality** in the population groups.

### Monitoring health

- Anaemia is useful to **monitor the progress of reproductive health**.
- Iron-deficiency anaemia **reduces the work capacity** of individuals and entire populations, with **serious consequences** for the **economy and national development**.

### Reasons for the continued high prevalence of anemia

- Anemia is an invisible problem
  - Anemia is often **ignored** and is accepted as a **normal part of being a girl or a woman** as it presents itself through **invisible symptoms** such as fatigue, weakness, dizziness, headache, shortness of breath and reduced physical strength.
  - NFHS-5 documented a **decline in anemia prevalence**.
  - **Misconceptions** and **lack of awareness** regarding the signs and symptoms of anemia contribute to **low testing rates**.
- Poor treatment rates of anemia
  - As per recent data more than **90% pregnant women** were provided with 180 doses of **Iron Folic Acid (IFA) tablets** for prevention of anemia.
  - **Only 26% consumed** the complete doses of IFA tablets (as per NFHS -5).

- Primary strategy for treating anemia is through IFA supplementation
  - Anemia is caused due to **three main factors**
    - ◆ Nutritional deficiencies,
    - ◆ Genetic haemoglobin disorders,
    - ◆ Infection and inflammation.
  - **Nutritional anemia** due to the deficiency of iron and folic acid contributes to only **50-70% of anemia** in all age groups.
  - The **current program** which primarily focuses on the prevention and control of anemia using IFA supplements may **only tackle nutritional anemia** and **not reduce anemia due to other causes**.
- Poor absorption of iron from vegetarian diets
  - Iron from the diet is either derived from **plant-based foods** in the form of non-heme iron or from **animal** in the form of heme iron.
  - **Heme iron** has a **high absorption** of up to **35%**, however, **non heme iron** from a predominantly vegetarian mixed cereal-pulse diet is **poorly absorbed** (up to 8.7%) due to certain inhibitors present in the diet.
  - **Poor absorption** and **inadequate consumption** of iron rich sources reinforces the **need** for meeting the **additional iron requirements** from IFA supplements for prevention of anemia.

### Government initiatives

- **Anaemia Mukht Bharat**
  - Anaemia Mukht Bharat (AMB) programme was launched in **2018** as part of the **Intensified National Iron Plus Initiative (NIPI) Program**.

- **Aim: To Accelerate** the annual rate of decline of anaemia from one to three percentage points.
- **Target groups**
  - ◆ Children 6-59 months, 5-9 years,
  - ◆ Adolescent Girls & Boys of 10-19 years,
  - ◆ Women of Reproductive Age (15-49 years),
  - ◆ Pregnant Women and Lactating Mothers.
- **Weekly Iron and Folic Acid Supplementation (WIFS)**
  - **Aim:** To meet the challenge of high prevalence and incidence of anaemia amongst adolescent girls and boys.
    - ◆ **Supervised weekly ingestion of Iron Folic Acid (IFA) tablet.**
- **Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)**
  - **Aim:** To focus on conducting special ANC check up on 9th of every month with the help of medical officers/ OBGYN to detect and treat cases of anaemia.
- **Other initiatives**
  - ✓ To control worm infestation **biannual deworming** with **Albendazole**.
  - ✓ Health management information system & **Mother Child tracking system** is being implemented for reporting and tracking the cases of anaemic and severely anaemic pregnant women.
  - ✓ **Universal screening** of pregnant women for anaemia as a part of ante-natal care is provided.

### Way forward

- **Need for a multipronged approach**
  - **India strives** to achieve the World Health Assembly's ambitious targets of **50% reduction in the anemia by 2025**.
  - A **multipronged approach** and focus on **increasing anemia testing and treatment** rates at earlier ages of life will **break the inter generational cycle** of anemia and ensure achievement of full potential for physical growth and cognition during adulthood.
  - **Anemia Mukht Bharat** launched in 2018 aims to **reduce anemia** across the lifecycle through a **comprehensive strategy**.
- **Preventive measures**
  - Efforts to **strengthen the preventive aspect** of anemia are also being implemented as a major intervention under **Ayushman Bharat School Health and Wellness Programme** for school going children and adolescents in government and government aided schools.
- **Regular monitoring**
  - Since anemia affects all age groups across all socio-economic categories, healthcare professionals, being

a central point of contact with the population, must advise **regular monitoring of Hb levels** and provide the **aetiology-based treatment** for anemia.

- All private schools must advise parents for **undertaking testing and treatment** of anemia of their children.
- **Social and Behavioral changes**
  - An intensive **interpersonal counselling** on the adverse effects of anemia and management of side effects is imperative in **removing misconceptions** around IFA and **improving treatment adherence**.

### EXPECTED QUESTIONS FOR UPSC CSE

#### Prelims MCQs

Q1. DABS-I, sometimes seen in the news, is related to:

- (a) Strategy to control pollution levels in Delhi and surrounding areas
- (b) Mission to study a near earth asteroid
- (c) An ocean research mission initiated by India and 10 other nations
- (d) A national level dietary survey

Answer: (d)

Q2. Consider the following statements with reference to prevalence of anemia in India:

1. Prevalence of anemia in adolescent girls is more than adolescent boys.
2. Prevalence of anemia in women is more than men.

Which of the statements given above is/are correct?

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

Answer: (c)

### FINITE ELEMENT ANALYSIS OF STRUCTURES (FEAST) SOFTWARE

**Why in News:** ISRO-made structural analysis software 'FEAST' available for Indian academia and industries.

#### Key details

- The Vikram Sarabhai Space Centre (VSSC) of the Indian space agency ISRO, has developed an **analysis software** that is used to perform **Finite Element Analysis (FEA)**

of various types of structures including **rockets, aircraft, satellites, buildings, etc.**

- **What is FEA?**
  - FEA is a **computerised method** for **predicting** how a **component or a structure reacts** to **real-world forces**- like various types of **structural loads, thermal conditions** and other **physical effects** that a structure experiences while in operation.
- So far, users have mostly **depended on expensive software versions** from foreign firms for this function.
- With **FEAST** (Finite Element Analysis of Structures) ISRO hopes to take this **indigenous and customisable FEA software** to the Indian user base.
- FEAST has been **made available** for Indian academia at a **fraction of the price** of similar foreign offerings.
- A **book on FEAST** was released by ISRO.

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. The acronym "FEA", sometimes seen in the news, is related to:

- (a) A computerised method for predicting how a structure reacts to real-world forces.
- (b) Scheme of government of India to improve malnourishment in the country.
- (c) A space programme of ISRO
- (d) None of the above

(a) Answer

**SMART LANDER FOR INVESTIGATING MOON (SLIM)**

**Why in News:** Japan's 'Moon Sniper' SLIM spacecraft landed successfully on the moon making the country only the 5<sup>th</sup> to do so.

**About SLIM**

- SLIM is a **spacecraft** built and launched by the **Japan Aerospace Exploration Agency (JAXA)**.
- SLIM was launched together with **XRISM**, a next-generation **X-ray space telescope**, onboard an H-2A rocket.
- SLIM will also mark the **second Japanese attempt** this year to **soft-land on the moon**.
  - The **HAKUTO-R M1 lander**, built by Japanese company space, crashed after its engines shut down too soon during the landing.

**Chandrayan vs SLIM**

SLIM is **lighter than Chandrayaan** because it carried **much less fuel**.

- Of Chandrayaan-3's **3.9 tonnes**, the propulsion module alone weighed **2.1 tonnes**.
- Mission could reach the moon in **less than a month**, by following a route called the **Hohmann transfer orbit**.
- On the other hand, **SLIM** took **four months** because it followed a **longer but more fuel-thrifty route** based on weak-stability boundary theory.
- **Orbiting around earth**
  - Once it was launched into an orbit around the earth, **SLIM swung around the planet** multiple times, **building up its kinetic energy** with each swing.
  - Once it was travelling fast enough, it **shot up towards the moon's orbit**.
  - **Chandrayaan-3** followed a **qualitatively similar path until this point**.
  - Once it got close to the moon, **Chandrayaan-3 applied its brakes** – which **consume fuel in space** – so that it could slow down enough to be captured by the moon's weaker gravity.
  - But once **SLIM got near the moon**, instead of slowing down and being captured by the moon's gravity, it **allowed itself to be deflected** in the moon's direction even as it shot past lunar orbit, deeper into space.
  - This **deflection** is the result of the **combined forces** exerted by the **earth and the moon**.

**How will SLIM affect Chandrayaan-4?**

- Scientists are interested in the **moon's South Pole region** at large because parts of some of the **craters** here are **always in shadow**, allowing the **temperature** there to **drop very low** as well as sparing them the effects of sunlight and diurnal temperature variations.
- These parts contain **water-ice**, and a lunar surface mission could potentially explore these sites and **attempt to extract water**.
- When the Indian Space Research Organisation successfully executed its **Chandrayaan-3** mission by **soft-landing** a robotic craft on the moon's surface, it also concluded the **second phase** of its **lunar exploration programme**.
- The first mission of its third phase is the **Lunar Polar Exploration (LUPEX) mission**, i.e. Chandrayaan 4.
- **LUPEX** will be an **Indian-Japan joint enterprise** (however, while JAXA has approved LUPEX, India is yet to) with an earliest launch date in **2026**.
- It will explore an area **closer to the moon's south pole** than Chandrayaan-3 did.
- The terrain near either of the moon's poles is **rocky, pocked** with several craters, and **full of steep slopes**.

- The technologies JAXA will test with SLIM, but especially a **feature-matching algorithm** and navigation systems, will be crucial for this aspect of LUPEX.

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. Smart Lander for Investigating Moon (SLIM) was recently sent to study moon by which of the following agencies?

- (a) Indian Space Research ORganisation
- (b) European Space Agency
- (c) National Aeronautics and Space Administration
- (d) Japan Aerospace Exploration Agency

Answer: (d)

**FAST REACTOR FUEL REPROCESSING PLANT (DFRP)**

**Why in News:** Prime Minister dedicated indigenously developed Demonstration Fast Reactor Fuel Reprocessing Plant (DFRP) at the Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam, Tamil Nadu.

**Key Details**

- The plant - It is a pilot for the bigger facility that would come up to reprocess the fuel that would come out of the two more 500 MW Prototype Fast Breeder Reactors (PFBR) that would come up later.
- A fast breeder reactor is one, which breeds more material for a nuclear fission reaction than it consumes and is the key to India's three-stage nuclear power programme.

**Function**

- This ground-breaking facility has the unique distinction of being the world's only industrial-scale plant capable of handling both carbide and oxide spent fuels from fast reactors.
  - Spent fuel refers to the nuclear fuel that has been used in a reactor.

**Fast Reactor Fuel Cycle Facility (FRFCF)**

- It is being set up in Kalpakkam and is expected to be completed by 2027.
- The FRFCF project is executed by the Nuclear Recycle Board, Bhabha Atomic Research Centre and the Department of Atomic Energy (DAE).

**Purpose:** The purpose of FRFCF is to reprocess the spent fuel of the fast breeder reactors.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. With reference to Fast Reactor Fuel Reprocessing Plant (DFRP), consider the following statements:

1. A fast breeder reactor breeds more material for a nuclear fission reaction than it consumes
2. It is indigenously developed.

Which of the statements given above is/are correct?

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

Answer: (c)

Q2. With reference to India's Fast Reactor Fuel Reprocessing Plant (DFRP), sometimes seen in the news, consider the following statements:

1. It is world's only industrial-scale plant capable of handling both carbide and oxide spent fuels from fast reactors.
2. It will be completed by 2027.
3. The purpose of the plant is to reprocess the spent fuel of the fast breeder reactors

How many of the above statements are correct?

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

Answer: (c)

**SQUARE KILOMETER ARRAY OBSERVATORY**

**Why in News:** Union Cabinet approved SKAO Convention and Sanctions Rs 1,250 Crore.

**Key Details**

- To formally become members, countries are required to sign and ratify the SKAO Convention.

**What is the Significance of the SKA telescope?**

- Some of the questions that scientists hope to address using this telescope include:
  - The beginning of the universe
  - Origin of first stars
  - The life-cycle of a galaxy

# About SKAO (Square Kilometre Array Observatory)

SKAO was established as an intergovernmental organization in 2021 after years of negotiations that saw participation from various countries, including India.

The SKAO is an array of thousands of antennas that will be placed in isolated, radio-quiet areas of Australia and South Africa.

SKA-India Consortium: It comprises engineers and scientists from over 20 national-level research institutions which include: the National Centre for Radio Astrophysics (NCRA); Aryabhata Institute of Observational Sciences, etc.

NCRA earned the responsibility within the SKA for successfully constructing and operating GMRT.



**Headquarters:**  
The United Kingdom



- Exploring the possibility of detecting technologically-active civilisations elsewhere in our galaxy
- Understanding the **origin of gravitational waves**.

### India's Role

- Its main contribution to the SKA is the **creation and management** of the **Telescope Manager** component, also known as the **"neural network"** or software that powers the telescope.
- NCRA is a unit of the Tata Institute of Fundamental Research, which operates India's largest network of radio telescopes called the Giant Metrewave Radio Telescope (GMRT) near Pune.

**International Collaborators:** UK, Australia, South Africa, Canada, China, France, India, Italy and Germany.

### What are radio telescopes

Unlike optical telescopes, radio telescopes **can detect invisible gas** and, therefore, they can reveal areas of space that may be obscured by cosmic dust.

### EXPECTED QUESTIONS FOR UPSC CSE

#### Prelims MCQs

Q1. Consider the following statements regarding Square Kilometer Array Observatory Convention:

1. It is an intergovernmental organization.
2. India is a member of Square Kilometer Array Observatory
3. Its headquarters is in Ladakh, India.

Which of the statements given above are correct?

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

Answer: (b) (1 and 2)

Q2. Which of the following telescopes can detect invisible gas and can reveal areas of space that may be obscured by cosmic dust?

- (a) Optical Telescope      (b) Infrared Telescope  
(c) Radio Telescope      (d) All of the above

Answer: (c)

## VACCINE FOR CERVICAL CANCER

**Why in News:** Government intends to initiate a three-phase vaccination drive against human papillomavirus (HPV) for girls aged 9-14.

### About vaccination drive

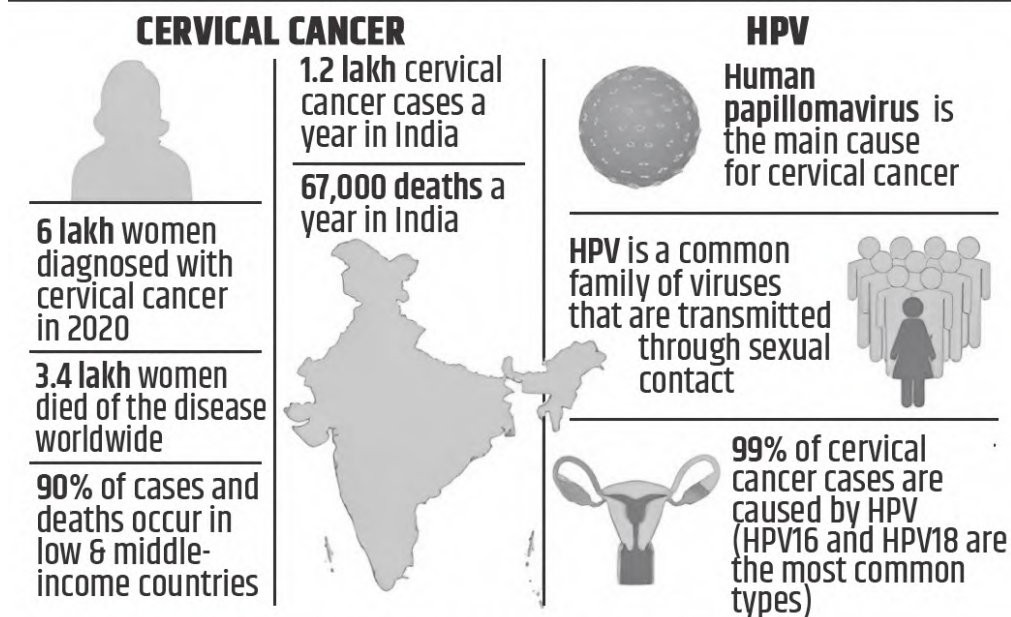
- It aims to **mitigate the risk of cervical cancer**.
- The vaccine also offers protection against the HPV strains that cause cancer of the anus, vagina and oropharynx. Additionally, it also protects against the HPV strains that are responsible for genital warts.
- The **Serum Institute of India in 2023 launched an indigenous HPV vaccine** known as CERVAVAC.

### About Cervical Cancer

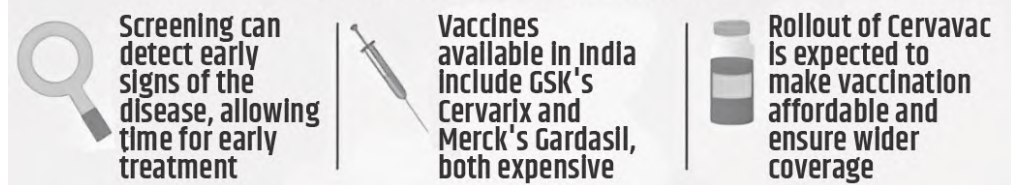
- Cervical cancer is a **growth of cells that starts in the cervix**. The cervix is the lower part of the uterus that connects to the vagina.

- Various strains of the **human papillomavirus, also called HPV**, play a role in causing most cervical cancers. HPV is a common infection that's passed through sexual contact.
- Almost all cervical cancer cases (99%) are linked to infection with **high-risk human papillomaviruses (HPV)**, an extremely common virus transmitted through sexual contact.
- Although most infections with HPV resolve spontaneously and cause no symptoms, **persistent infection can cause cervical cancer in women.**
- Cervical cancer is the **fourth most common cancer in women globally**. In 2018, an estimated 570,000 women were diagnosed with cervical cancer worldwide and about 311,000 women died from the disease.
- **Cervical cancer is the second most common cancer in women in India**. In India, cervical cancer contributes to approximately **6–29% of all cancers in women**.
- The age-adjusted incidence rate of cervical cancer varies widely among registries; highest is 23.07/100,000 in Mizoram state and the lowest is 4.91/100,000 in Dibrugarh district.

## THE DISEASE AND THE ROAD TO CONTAINMENT



### PREVENTION & TREATMENT



#### Prevention

- **Effective primary (HPV vaccination) and secondary prevention** approaches (screening for and treating precancerous lesions) will prevent most cervical cancer cases.
- After diagnosis, **cervical cancer is one of the most successfully treatable forms of cancer**, as long as it is detected early and managed effectively.

#### Types of Strain

- **Persistent infections with certain high-risk HPV strains** lead to nearly 85% of all cervical cancers.
- At least 14 HPV types have been identified as oncogenic [potential to cause cancer].

- HPV types 16 and 18 considered to be the most oncogenic, have been found to be responsible for about 70% of all cervical cancer cases globally.

#### EXPECTED QUESTION FOR UPSC CSE

##### Prelims MCQ

- Q. With reference to cervical cancer, consider the following statements:
1. India contributes the largest share of the global cervical cancer burden
  2. Almost all cervical cancer cases (99%) are linked to infection with high-risk Human Papillomavirus (HPV)

3. India recently started importing a HPV vaccine known as CERVAVAC from the United States of America.

How many of the above statements are correct?

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

Answer: (b)

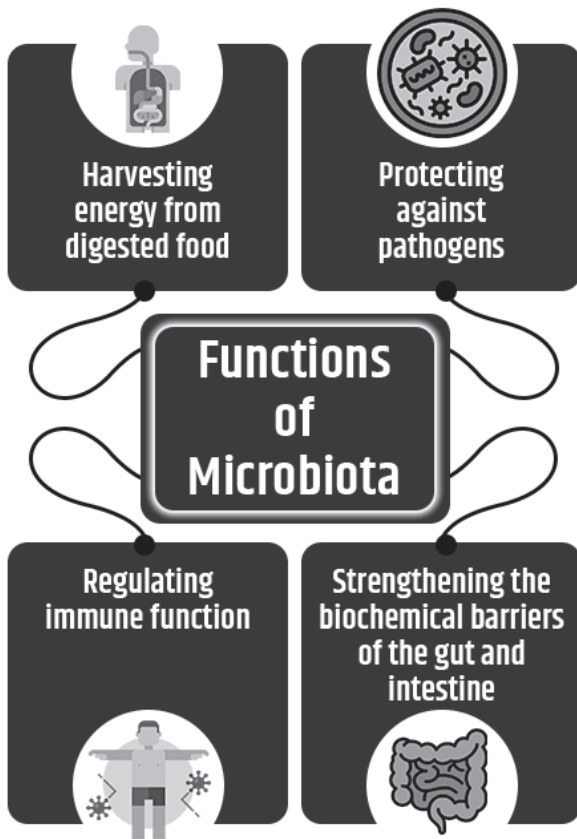
## GUT MICROBIOTA

**Why in News:** As per scientists' findings, the gut microbiota may be linked to heart health, some cancers, and even the colour of urine.

### About Gut Microbiota

- It is a highly **dense population** of different kinds of **bacteria** residing in the gut which co-evolves with the host.
- It is associated with **maintenance of health**.
  - **Unbalanced microbiota** contributes in the development of **several diseases**.
- Infants inherit their first **gut microbes during vaginal delivery or breastfeeding**.
  - Diet and other environmental exposures introduce new microbes' biome.

### Functions



### Disease

- Alteration of beneficial gut microbiota population triggers **gastrointestinal diseases** such as obesity, diabetes, inflammatory bowel disease, and cardiovascular diseases.

### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. With reference to gut microbiota, consider the following statements:

- It refers to bacteria and virus only in the gut of humans.
- Low microbial diversity in the gut has links to obesity and type 2 diabetes.

Which of the statements given above is/are correct?

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

Answer: (b)

## MAITRI RESEARCH STATION IN ANTARCTICA

**Why in News:** India has decided to build a new research station in Antarctica, replacing its "very old" predecessor Maitri station.

- The research station is expected to be **completed by January 2029**.

### Key details

- Maitri-2 station** will be established in **East Antarctica** near the existing one, and it will be able to house around 90 scientists.
- The establishment of the new research facility will enhance the quality of Indian research regarding the White Continent.
- The existing station **Maitri**, was **set up in 1988** and was supposed to be operational for **ten years only**.

### Need for a new station

- India's strategic Antarctica move comes at a time when **China is making wide strides** in the research space for the White Continent.
- China** is already on its way to building its **fifth research base** on the continent, for which it has dispatched more than 450 personnel to the snowy continent.
- A need to **replace the 35-year-old facility** for two decades, but it was only in **2017** that the government planned to **replace the Maitri station** in the next three to four years.

### Highlights about Antarctica

- ✓ Antarctica is uninhabited except for those manning the nearly 40 permanent stations established by several countries, including India, for carrying out scientific research.
- ✓ India has two research stations on the continent: 'Maitri' (commissioned in 1989) at Schirmacher Hills and 'Bharati' (2012) at Larsemann Hills.
- ✓ Antarctica is Earth's southernmost continent.
  - It contains the geographic South Pole and is situated in the Antarctic region of the Southern Hemisphere.
- ✓ Indian Antarctic Programme is a multi-disciplinary, multi-institutional programme **under the control of the National Centre for Antarctic and Ocean Research, Ministry of Earth Sciences.**
- ✓ India officially **acceded to the Antarctic Treaty System in August 1983.**

on the continent by **Indian citizens, or foreign citizens** who are a part of Indian expeditions.

- So far there was **no recourse for crimes** committed during an expedition, including crimes against the environment.
- **Aim:** To ensure **de-militarization** of the region along with getting it rid of mining or illegal activities.
- It also aims that there **should not** be any **nuclear test / explosion** in the region.
- The new research base will adhere to **environmental protocols** laid out by international bodies and the **Indian Antarctic Act passed in 2022.**
- **Indian Antarctic Environmental Protection Rules, 2023,** clearly state our commitment to **protect the Antarctic environment.**

### About the Antarctica Act

- Act is **the first domestic legislation** with regard to Antarctica in India.
- **Twenty-seven countries** already have domestic legislations on Antarctica.
- The Act now puts into place a **comprehensive list of regulations** related to Antarctica, for such **scientific expeditions**, as well as for **individuals, companies** and **tourists.**
- The most significant part of the Act is **extending the jurisdiction of Indian courts to Antarctica**, for crimes

### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. Consider the following statements:

1. India is planning to establish Maitri-2 research station in the Arctic region
2. The existing research stations of India, Maitri and Bharti are located in the Antarctic region.
3. India has not yet acceded to the International Antarctic Treaty system.

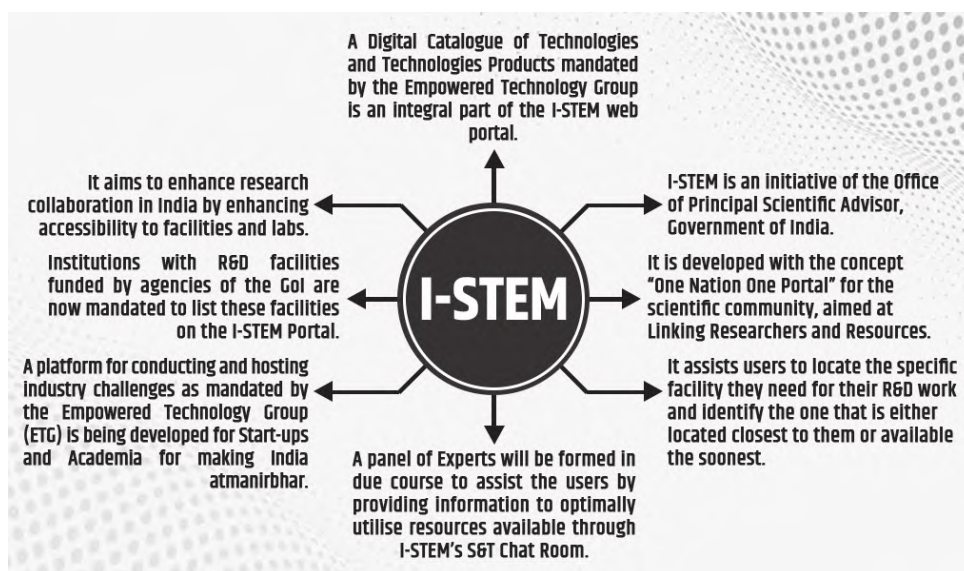
Which of the statements given above is/are incorrect?

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

Answer: (a)

## I-STEM

**Why in News:** I-STEM (Indian Science, Technology, and Engineering facilities Map) launched the Samavesha project at IISc., Bengaluru, on January 16.



EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

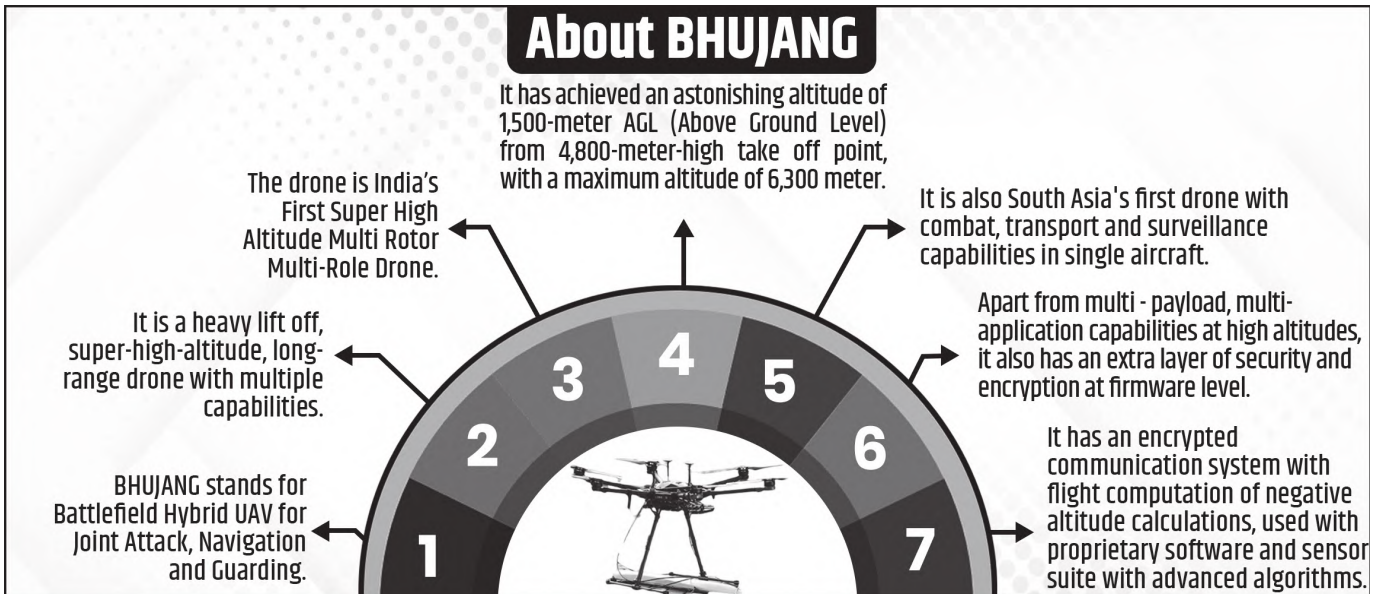
- Q. Which of the following statements is incorrect regarding I-STEM (Indian Science, Technology, and Engineering facilities Map)?
- (a) It aims to enhance research collaboration in India by enhancing accessibility to facilities and labs.
  - (b) It is an initiative of the Ministry of Science and Technology.
  - (c) It is developed with the concept "One Nation One Portal" for the scientific community, aimed at Linking Researchers and Resources.
  - (d) All of the above are correct.

Answer: (b)

**BHUJANG**

**Why in News:** DroneAcharya Aerial Innovations Limited, India's first Drone company to go public, has launched BHUJANG drone.

### About BHUJANG



It has achieved an astonishing altitude of 1,500-meter AGL (Above Ground Level) from 4,800-meter-high take off point, with a maximum altitude of 6,300 meter.

- 1. BHUJANG stands for Battlefield Hybrid UAV for Joint Attack, Navigation and Guarding.
- 2. It is a heavy lift off, super-high-altitude, long-range drone with multiple capabilities.
- 3. The drone is India's First Super High Altitude Multi Rotor Multi-Role Drone.
- 4. It has achieved an astonishing altitude of 1,500-meter AGL (Above Ground Level) from 4,800-meter-high take off point, with a maximum altitude of 6,300 meter.
- 5. It is also South Asia's first drone with combat, transport and surveillance capabilities in single aircraft.
- 6. Apart from multi - payload, multi-application capabilities at high altitudes, it also has an extra layer of security and encryption at firmware level.
- 7. It has an encrypted communication system with flight computation of negative altitude calculations, used with proprietary software and sensor suite with advanced algorithms.

EXPECTED QUESTION FOR UPSC CSE

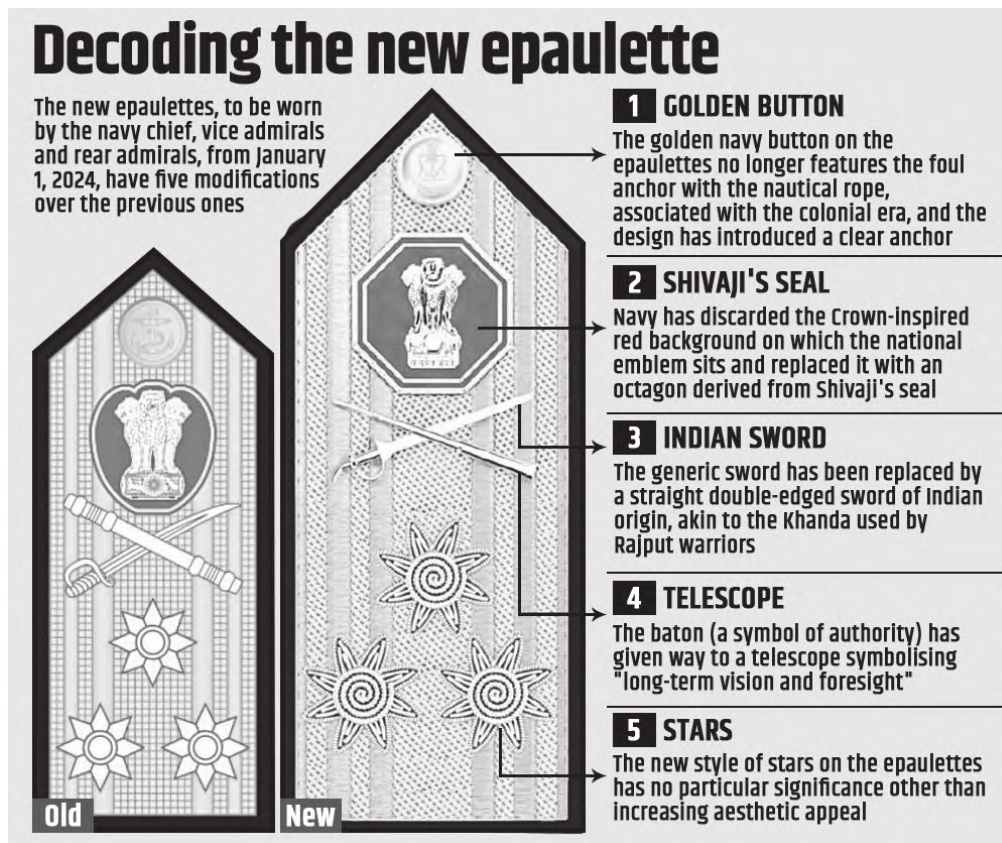
Prelims MCQ

- Q. What is BHUJANG, sometimes seen in the news?
- (a) A newly launched submarine of Indian navy
  - (b) A recently launched combat drone
  - (c) An online portal for Micro Small and Medium Enterprises (MSME) sector
  - (d) A missile launched by the Defence Research and Development Organisation

Answer: (b)

## NEW EPAULETTES FOR ADMIRALS

**Why in News:** Recently, the Indian Navy unveiled the new design of epaulettes that senior officers will display on their uniform as part of efforts to shed the remnants of its colonial legacies in customs and traditions.

**About New Epaulettes**

- The new epaulettes are for the ranks of **Admiral, Vice Admiral, Rear Admiral, Surgeon Vice Admiral and Surgeon Rear Admiral.**
- The new epaulettes have
  - the new **golden Navy button** carrying the new naval crest which was unveiled last year,
  - a **red octagon** as the backing to the national emblem, and
  - a **sword and a telescope.**

**Significance of the new epaulettes**

- The new Navy button **reflects the new crest**, sans the **fouled anchor** which was a colonial era vestige.

- The **red octagon** reflects the **eight cardinal directions** indicative of an all-round long-term vision.
- It is inspired from the **Rajmudra of Maratha ruler Chhatrapati Shivaji Maharaj** who had built the massive Maratha Navy which has a rich maritime legacy.
- The **Indian sword** represents being the **cutting edge of national power and winning wars.**

**Why the Change?**

- The change is in line with the Indian Armed Forces' increasing efforts in the last two years to **discard their colonial-era vestiges, customs and traditions.**

**Other Changes by the Navy**

- The Navy is learnt to be soon allowing **Indian attires** in their officers' mess and wardrooms.

- It has also reviewed the **British-inherited ranks** held by sailors and is set to **Indianise them soon**.
- Last year, the **Christian hymn *Abide With Me*** was **dropped** from the Beating Retreat ceremony and was **replaced by *Aye Mere Watan Ke Logon***.
- There are also efforts in the Indian military to include more **indigenous texts in military training** with a focus on Indian war heroes, leaders and thinkers as well as **restraining the use of foreign names for military exercises and call signs**.

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

- Q. Recently, the Navy unveiled new design of epaulettes for its senior officers. In this context, consider the following statements:
1. It aims to discard colonial-era vestiges, customs and traditions.
  2. It is inspired from the Rajmudra of Maratha ruler Chhatrapati Shivaji Maharaj.

Which of the statements given above is/are correct?

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

Answer: (c)

**KHANJAR EXERCISE**

**Why in News:** India-Kyrgyzstan Joint Special Forces Exercise KHANJAR has commenced at the Special Forces Training School in Bakloh, Himachal Pradesh.

**About Exercise KHANJAR**

- First initiated in December 2011, in Nahan, India.
- It is the 11th edition of India-Kyrgyzstan Joint Special Forces Exercise.
- It is an **annual event** conducted alternatively in both the countries.
- The Indian Army contingent comprising 20 personnel is being represented by troops from The Parachute Regiment (Special Forces) and the Kyrgyzstan contingent comprising 20 personnel is represented by Scorpion Brigade.
- **Aim: To exchange experiences and best practices in counter terrorism and Special Forces operations in**

Built-up Area and Mountainous Terrain under Chapter VII of United Nations Charter.

- The exercise will **provide an opportunity for both sides to fortify defence ties while addressing common concerns** of international terrorism and extremism.
- The exercise will also **accord the opportunity to showcase capabilities of cutting edge indigenous defence equipment** besides achieving shared security objectives and foster bilateral relations.

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

- Q. Exercise 'Khanjar' is a military exercise between India and:
- (a) Iran (b) Kazakhstan  
(c) Kyrgyzstan (d) Mongolia

Answer: (c)

**DESERT CYCLONE**

**Why in News:** India-UAE Joint Military Exercise, named 'DESERT CYCLONE,' held in Mahajan, Rajasthan, and was scheduled from 2nd to 15th January 2024.

**More about the news**

- India has also been a regular participant at the biennial International Defence Exhibition (IDEX) in Abu Dhabi.



# Desert Cyclone

 <p><b>DESERT CYCLONE:</b> To enhance interoperability in Sub-conventional Operations</p>	 <p><b>DESERT FLAG</b> for joint air exercises and training</p>	 <p><b>Zayed Talwar</b> is the bilateral naval exercise which aims to enhance the interoperability and synergy between the Indian Navy and UAE Navy.</p>	 <p><b>INDE-UAE BILATERAL EXERCISE:</b> Focus on counter-terrorism and strategic cooperation</p>
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**Aims:** To enhance interoperability by learning and sharing best practices in urban operations.

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. Desert Cyclone is a military exercise between India and:

- (a) Kazakhstan
- (b) Saudi Arabia
- (c) United Arab Emirates
- (d) Iran

Answer: (c)

**EXERCISE SEA DRAGON-24**

**Why in News:** Recently, Indian Navy's P8I aircraft landed at Guam, a US island territory in Western Pacific, to participate in Exercise Sea Dragon – 24.

**Key Details**

- Exercise Sea Dragon-24 is an **elite multinational maritime exercise** that encourages professional exchanges and teamwork among participating navies.

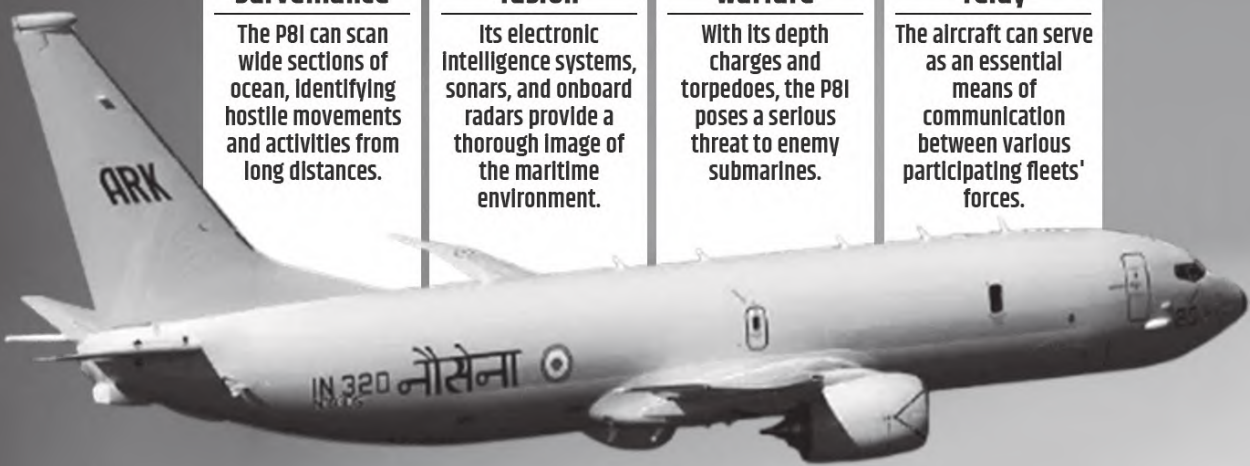
- **Participating countries:** India, Japan, South Korea, Australia, and the US.
- The exercise seeks to improve skills in a variety of maritime combat domains through a number of **aerial and ground-based tasks**, including:
  - **Anti-submarine warfare (ASW):** Locating and neutralising enemy submarines hiding beneath the seas.
  - **Surface warfare:** Coordinated attacks on hostile surface vessels using superior weaponry and tactics.
  - **Air defence:** Putting up an impenetrable air barrier to keep friendly forces safe from aerial threats.
  - **Search and rescue (SAR):** Tracking down and saving maritime personnel in need.
  - **Communication and coordination:** Synchronising activities across several platforms and exchanging information in a seamless manner.

## About P8I Aircraft

It is a versatile aircraft with potent force multiplier in maritime operations.

**Its primary capabilities are:**

Long-range surveillance	Multi-sensor fusion	Anti-submarine warfare	Communication relay
The P8I can scan wide sections of ocean, identifying hostile movements and activities from long distances.	Its electronic intelligence systems, sonars, and onboard radars provide a thorough image of the maritime environment.	With its depth charges and torpedoes, the P8I poses a serious threat to enemy submarines.	The aircraft can serve as an essential means of communication between various participating fleets' forces.



**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. Consider the following statements:

1. Exercise Sea Dragon-24 is a bilateral exercise between India and Japan.
2. Sea Dragon-24 was recently conducted in India.

Which of the statements given above is/are correct?

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

Answer: (d)

Q2. Consider the following statements regarding P8I aircraft:

1. It is a short-range surveillance aircraft.
2. It also supports anti-submarine warfare.

Which of the statements given above is/are correct?

(a) 1 only

(b) 2 only

(c) Both 1 and 2

(d) Neither 1 nor 2

Answer: (b)

**INS IMPHAL**

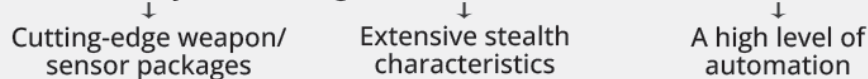
# INS IMPHAL

## Why in News?

INS Imphal, the **third of four warships** of Project 15B that together form the Visakhapatnam class stealth-guided missile destroyers, is set to be commissioned into the Indian Navy.

## What is Project 15B?

- The **P-15 Bravo-class destroyers** or just **P-15B**, are a **series of guided-missile warships** currently under construction for the Indian Navy. The P-15 class is an updated version of its forerunner, the Kolkata-class, with enhanced stealth, mechanisation, and armament capabilities.
- These ships are among the world's most **technologically advanced Guided Missile Destroyers**, featuring:



- ▶ Under the Project-15B programme, a deal for Rs 29,643.74 crore was inked in 2011 to build **four warships at Visakhapatnam, Mormugao, Imphal, and Surat.**
- ▶ All four ships have been **named after cities** from throughout the country.

## P-15B Ship Specifications

- ▶ Ships are outfitted with **supersonic cruise missiles and long-range surface-to-air missiles** known as **BrahMos (SAM).**
- ▶ The ship is equipped with **indigenous armament systems** such as:



## Launch of the ships

- ▶ The **lead ship** of Project 15B, **INS Visakhapatnam** was commissioned into the Indian Navy in **November 2021.**
- ▶ Second ship **INS Mormugao** in **December 2022.**
- ▶ Fourth ship **INS Surat**, was launched in **May 2022.**

## Designed and built by

- ▶ The four ships of Project 15B designed by the Indian Navy's in-house warship design entity **Warship Design Bureau**, and built by **Mazagon Dock Shipbuilders Limited** in Mumbai.



### Technological Characteristics and Armament

- ✓ The four ships of the class are **163 meters long** and 17.4 m wide, with a displacement of **7,400 tonnes**.
- ✓ The propulsion system allows the ship to reach a **maximum speed of 30 knots** and a maximum range of **4000 nautical miles**.
- ✓ The class also has a **total atmospheric control system (TACS)** that offers protection to the crew from chemical, biological and nuclear threats.
- ✓ The arsenal of the Visakhapatnam class has **BrahMos surface-to-surface cruise missiles** and vertically launched **Barak-8 surface-to-air missiles** for long-range engagement of shore and sea-based targets.
- ✓ The ship is armed with **indigenously developed 533 mm torpedo launchers** and **RBU-6000 anti-submarine rocket launchers** to provide anti-submarine warfare capability.
- ✓ It can operate **two multi-role helicopters**, including **Sea King** or **HAL Dhruv**.
- ✓ It can operate as an **independent offence platform** even when not part of a large formation.
- ✓ With all its modern sensors and communication facilities, the class is a **key asset in network-centric warfare**, which denotes the **use of information technology and computer networking tools** to form networks of various force elements in play in a conflict scenario.

#### EXPECTED QUESTION FOR UPSC CSE

##### Prelims MCQ

Q. With reference to Project 15B, consider the following statements:

1. Under the project four aircrafts are to be developed as guided missile destroyers.

2. These are to be built and designed by the Defence Research and Development Organisation (DRDO).

Which of the statements given above is/are correct?

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

Answer: (d)

## PEGASUS SPYWARE

**Why in News:** The Washington Post and Amnesty International report claims that Pegasus spyware targeted journalists in India.

### Allegations of Amnesty International

- It is reported that traces of Pegasus’s activity on many devices has been found.
- A message to facilitate a “**zero-click exploit**” had been sent to people’s phones affected by the spyware.
- Once received, the message was designed to **covertly install Pegasus** on the device.

### ABOUT PEGASUS

Pegasus is a spyware, developed and licensed by an Israeli company, NSO Group. It can be used to infiltrate smartphones that run on both iOS and Android operating systems, and turn them into surveillance devices. A low down:

- Pegasus's method of attack is called zero-click attacks, which do not require any action by the user. The spyware can hack a device simply by giving a **missed WhatsApp call**
- It will **alter call logs** so that the user has no knowledge of what happened

- It can also be **installed manually** on a device or over a wireless transceiver
- If it fails to connect with its command-and-control server for more than 60 days, it **self-destructs and removes all traces**

- If it detects that it was installed on the wrong device or SIM card, it will **self-destruct**
- Amnesty International noted that despite issuing security updates, Android and iOS devices were **breached**

- Once the spyware enters the device, it installs a module to track call logs, read messages, emails, calendars, Internet history, and gather location data to send the information to the attacker
- To stay safe, users need to ensure that software in devices is updated and all apps are installed directly through the official stores. **No suspicious email or text should be clicked**

**What is a zero-click exploit?**

- A zero-click exploit refers to **malicious software** that allows **spyware to be installed** on a device **without the device owner's consent**.
- It doesn't require the device owner to **perform any actions to initiate or complete the installation**.
- The specific exploit allegedly in use on the two devices is called **BLASTPAST** (previously identified as BLASTPASS).
- It plays out in **two phases**:

- In the first, the attack attempts to **establish a link** with the Apple Home Kit – which gives users a **way to control multiple smart devices** on the target's device.
- In the second, some **malicious content** is sent via the iMessage app to the target.
- The purpose of the **first phase – the 'outreach'** – could be to **determine how the device can be exploited** or to keep it in sight for further exploitation in the future.
- The **second phase** is the one that **delivers the full spyware payload**.

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. What is *zero-click exploit*, sometimes seen in the news?

(a) An automatic drone that works on voice commands

(b) A computer software that installs spyware on device without owners consent

(c) A malicious website that shows irrelevant advertisements

(d) A newly launched automatic gun for Indian army

(b) Answer

**PINAKA WEAPON SYSTEM**

**Why in News:** According to defence officials, two South American countries have shown interest in India's indigenous Pinaka multi-barrel rocket launchers.

# PINAKA WEAPON SYSTEM

- 1** Pinaka is a **Multi-Barrel Rocket Launcher (MBRL)**.
- 2** The Pinaka MBRL is **designed by the Armament Research and Development Establishment (ARDE)**, a laboratory of the DRDO.
- 3** It was **first used during the Kargil War**, where it successfully neutralised Pakistan Army positions on the mountain tops.
- 4** It **delivers lethal and responsive fire against a variety of area targets**, such as exposed enemy troops, armoured and soft-skin vehicles, communication centres, air terminal complexes, and fuel and ammunition dumps.



**Features**

- It consists of a **multi-tube launcher vehicle**, a **replenishment-cum-loader vehicle**, a replenishment vehicle, and a command post vehicle.
- The launcher system is supported on four hydraulically actuated outriggers at the time of firing.
- It has a **range of 60 to 75 kilometres**.
- The system is **mounted on a Tatra truck for mobility**.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. Which of the following statement is correct regarding the Pinaka weapon system of India?

- (a) It is a Ballistic Interceptor Missile
- (b) It was first used during the Indo-China war
- (c) It is designed by the Defence Research and Development Organisation
- (d) All of the above are correct

Answer: (c)

REJUPAVE TECHNOLOGY

**Why in News:** The Border Roads Organisation (BRO) plans to enhance the operational capacity of the defence forces along the India-China border in Arunachal Pradesh by using an indigenous technology called "Rejupave."

**Rejupave Technology**

Developed by  
**CSIR-Central Road Research Institute (CSIR-CRRI)**

CSIR  
CRRI

- Rejupave is a bio-oil-based asphalt modifier that reduces the heating requirement of bituminous mixes and preserves their temperature during transit.
- This technology addresses the challenges of constructing and maintaining bituminous roads in high-altitude areas during low and sub-zero temperatures.
- The BRO has successfully applied Rejupave at the world's highest Sela road tunnel and LDY Road section near the China border in Arunachal Pradesh.
- The technology is developed using a bio-based eco-friendly product with 100% bio-oil.

About Sela Road Tunnel

- ✓ It has been excavated below the Sela Pass.
- ✓ A high-altitude mountain pass situated at an elevation of 4,200 meters (13,800 feet) above sea level.
- ✓ This tunnel aims to provide "all-weather" connectivity to Tawang, a remote and strategically significant district in the region.
- ✓ It will be the world's longest bi-lane tunnel at an altitude above 13,000 feet.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. What is 'Rejupave', sometimes seen in the news?

- (a) A new payment system launched by the National Payments Corporation of India
- (b) A software technology developed for bitcoin usage
- (c) A new technology for constructing roads at high altitude areas
- (d) None of the above

Answer: (c)

### ROLE OF SLUM IN SOCIETY

**Why in News:** Slums are a constant feature in urban areas and play a crucial role in its functioning.

#### What are Slums?

**Slums have been defined** as those areas where buildings are unfit for human habitation, or are by dilapidation, overcrowding, design of buildings, narrowness of streets, lack of ventilation, light or sanitary facilities or any combination of these factors, are detrimental to safety, health or moral (**Slum Area Improvement and Clearance Act 1956**).

#### Slums in India

- India has a population of **65.49 million people**, living in **13.7 million slum dwellings** across the country.
- In as many as 65% of Indian cities, there are neighboring slums where residents live in little dwellings next to one another.
- Out of all of India's major metropolitan areas, Delhi's slums are renowned for being the dirtiest.
- 52% of Delhi's population lived in its estimated 6,343 slums, which included over a million households, according to a National Service Scheme round survey conducted in July 2012–December 2012.

#### Characteristics of the Slums

**Slums are universally characterized by -**

- inadequate housing, facilities
- overcrowding and
- congestion.

**They are a subculture with norms and values, reflected in -**

- poor sanitation
- poor health practices
- deviant behavior and
- social isolation.

Slum dwellers are considered inferiors and harbor suspicions of the outside world.

#### Reasons for the Growth of Slums in India

The growth of slums in India can be attributed to a complex interplay of social, economic, and urban factors. Several key reasons contribute to the proliferation of slums in the country:

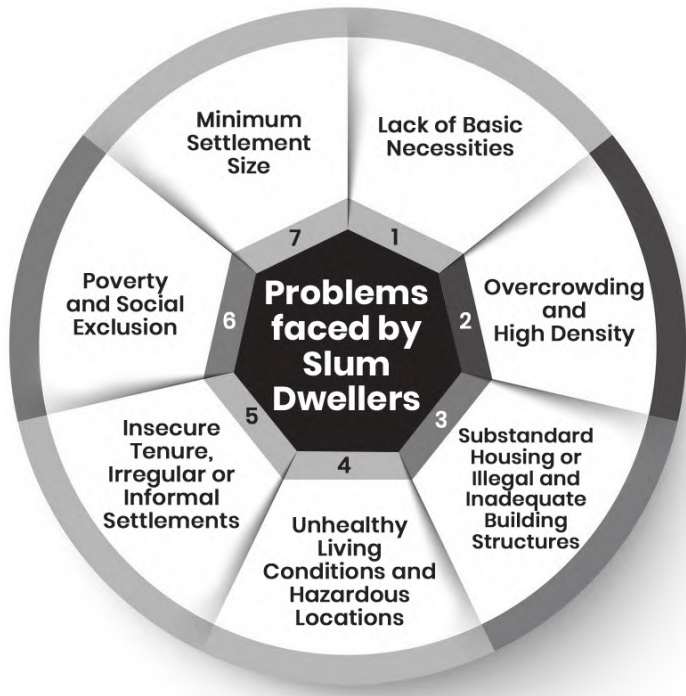
1. **Rural-to-Urban Migration:** Slum growth in India is primarily driven by rural-to-urban migration, resulting in a rapid increase in urban populations, often overwhelming cities' capacity for housing and basic services.
2. **Lack of Affordable Housing:** India's urban areas suffer from a shortage of affordable housing, leading to high real estate prices and informal settlements for low-income individuals.
3. **Inadequate Urban Planning:** Poor urban planning and inadequate infrastructure lead to slum growth, as cities struggle to meet the needs of their growing populations, resulting in informal settlements.
4. **Poverty and Unemployment:** Poverty and unemployment in urban and rural areas drive people to informal settlements, often resulting in low-paying, informal sector jobs as their only employment opportunities.
5. **Inadequate Government Policies:** Ineffective government policies and programs in addressing urban poverty and slum development can worsen the issue, leading to the continued growth of slums.

#### Role played by Slums

- Slums are **vital economic centers**, with slum workers **providing essential services** to the city. They also host a large number of **informal sector workers**, including rickshaw drivers, street vendors, and construction workers. Slum residents are integral to the urban workforce, providing essential services in construction, domestic work, transportation, rag pickers and other sectors, making their contributions critical to the city's functioning.
- Slums are **diversified communities** with various people, which promotes active community life. Through sharing resources, helping one another out, and working together to solve problems, they form **stable social networks** and a feeling of solidarity. In the absence of official social services, these unofficial support networks play a crucial role in building resilience and a sense of community within the community.
- Slums **enhance the social fabric** of the city by allowing different customs, dialects, and cuisines to coexist. They are distinguished by their **diversified population** of individuals from different areas, religions, and cultural backgrounds.

**Problems faced by Slum dwellers**

- India’s government is struggling to address the major problems that slum inhabitants face, such as **population growth, transportation, health, and safety.**
- The majority of families impacted by urban development initiatives live in slum areas because of the low quality of the urban environment.
- Examining slum regions and their living circumstances is essential to addressing these problems, as is identifying critical and problematic zones.
- The issues that the entire Indian slum population faces cannot be resolved by the government.



**Government Initiatives for Slum Dwellers/Urban Poor:**

- ✓ Pradhan Mantri Garib Kalyan Yojana
- ✓ Atmanirbhar Bharat Abhiyan (self-reliant India).
- ✓ PM- Awas Yojana- Urban.

**Recommendations for Improving Conditions of Slum Dwellers in India**

India and other developing nations must acknowledge that slum inhabitants are more than just the products of development. Some of the steps which are recommended to improve the condition of slum dwellers in India are given below:

- Empowering local governments
  - **Local governments** should be given the **authority to provide infrastructure and services** to slum inhabitants in order to address the issue locally.
  - **State governments** should create plans to **stop the**

**development of new slums**, including ways to provide people with inexpensive land, resources, jobs, and essential infrastructure.

- **Infrastructure and essential services** like energy, water, sanitation, and housing should be the main priorities of public spending.
  - Giving the poorest citizens’ mobility requirements and safety concerns first priority in urban transportation systems can increase their options for where to live and work.
- **Building laws and regulations** must to be reasonable, enforced, and tailored to the demands and lifestyle of the neighborhood. T
  - This will enable the construction of incremental dwellings on small pieces of land using inexpensive materials.

**Conclusion**

The condition of slums must be improved with constructive interference of government, civil society and administration in order to achieve the constitutional ideals in letter and spirit.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q. Consider the following statements:

1. Cities with 10 lakh and above population in India have over 50% population living in slums.
2. More than 60% of Indian cities have adjoining slums where people live in small houses adjacent to each other.

Which of the statements given above is/are correct?

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

(b) Answer

**Descriptive Question**

Q. Presence of Slums in society is a violation of human rights and failure of governance. Examine. [15 Marks] [250 Words]

**STATUS OF CHILD MARRIAGES**

**Why in News:** **Lancet study** on child marriage in India highlighted an overall decrease in child marriage across the country.

**Key Details**

- Report emphasized that certain states like Bihar (16.7%), West Bengal (15.2%), Uttar Pradesh (12.5%), and

Maharashtra (8.2%), collectively contributed to over half of the total headcount burden of child marriages in girls.

### Status of Child marriage in India

- The **National Family Health Survey** shows that 39.1% of women aged 20-24 are married before 18 years, with 2 out of 5 adolescent girls marrying before completing their higher secondary education.
- The **District Level Household Survey** in Bihar found that **Supaul** had the highest percentage of child marriage in intervention areas of CRY-supported projects.
- The **Census (2011)** shows that over 13 million adolescent girls in India are married between 10 and 19 years old. Of these, 3.8 million have children, with 1.4 million having multiple children before completing adolescence. However, 39% of illiterate girls began childbearing, highlighting the importance of education in empowering girls.

### Impacts of Child Marriage

- Child marriage is associated with **poor health outcomes**, including maternal mortality and morbidity rates, which are frequently caused by early childbearing.
  - Young moms give birth to children at high rates of death, and those who do make it are more likely to experience health problems.
- **Abuse and domestic violence** can have an adverse effect on mental health by causing depression and PTSD.
- Child marriage is associated with **lower educational attainment** among girls and restricts women's employment opportunities, financial security, and social involvement.
  - An unbroken cycle of low literacy and scarce employment possibilities is perpetuated by young, illiterate moms' lower likelihood of having children who pursue higher education.
- Young married women are more likely to **experience domestic abuse and social isolation** because they frequently lack status and influence.
  - Fertility rates are directly impacted by lower marriage ages, and **child marriage infringes on children's rights to safety, education, leisure, and parental participation.**
  - It **abruptly ends a boy's/girl's childhood**, pushing them into adulthood before they are prepared for it.
  - **Child brides are frequently denied their fundamental rights**, including access to health, education etc.

➤ Child marriage is considered a "violation of human rights" by the **United Nations Children's Fund (UNICEF)** because it "compromises the development of girls and boys". Gender inequality that is deeply ingrained can lead to child marriage, which disproportionately affects girls.

- Ending child marriage is thus considered to be crucial to reaching the **UN's Sustainable Development Goal (SDG) 5**, which aims to "achieve gender equality and empower all women and girls" by 2030.
- **Goal 5.3 of the Sustainable Development Goals** aims to "eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation".

### Initiatives to Tackle Child Marriages

- ✓ Prohibition of Child Marriage Act, 2006 (PCMA)
- ✓ Beti Bachao Beti Padhao (BBBP) scheme.
- ✓ Protection of Children from Sexual Offences Act 2012.
- ✓ PENCIL for promoting education

### Way Forward

- Mobilize **political will** to prioritize the eradication of child marriage through legislative measures.
- Conduct **social campaigns** involving all stakeholders including panchayats, schools and local communities.
- Promote a **culture of reporting and transparency** by regularly updating and providing detailed information on child marriage **cases under PCMA 2006.**
- Facilitate a **comprehensive review of PCMA 2006** and ensure improvement in enforcement.
- Advocate for **approval of the Prohibition of Child Marriage (Amendment) Bill, 2021, by the Parliamentary Standing Committee.**
- The Bill amends the PCMA 2006 to **increase the minimum age of marriage of females to 21 years.**

### Conclusion

Best cure for the problem of child marriage is the holistic empowerment of girls.

### EXPECTED QUESTIONS FOR UPSC CSE

#### Descriptive Question

- Q. What is child marriage? Explain the reasons for their occurrence and measures to tackle the menace. [15 Marks] [250 Words]

## THE ANNUAL STATUS OF EDUCATION REPORT (ASER) 2023

**Why in News:** ASER 2023 report was released by the Pratham NGO.


### Key details

- The Annual Status of Education Report (ASER) is a large-scale **citizen-led household survey** that aims to understand whether children in rural India are enrolled in school and whether they are learning. It has been **conducted every year since 2005 in all rural districts of India.**

- The basic, **nationwide ASER survey is conducted every alternate year**. It collects data on the enrolment status of children in the age group of 3-16 years, and basic reading and arithmetic levels of children in the age group of 5-16 years.
- In the intervening years, **ASER focuses on different aspects of children’s education and learning**.
  - For instance, in **2017**, the survey focused on the **enrollment patterns, learning levels, awareness and aspirations of rural youth aged 14-18**.
  - In **2019**, it focused on **enrollment and school readiness of young children aged 4-8**.
- ASER 2023 focuses on the age group 14-18 and looks ‘beyond basics’ to explore a wider set of domains beyond foundational skills. Domains explored in ASER 2023 are:
  - Basic reading, math and English abilities;
  - Application of basic skills to everyday calculations;
  - Reading and understanding written instructions; and
  - Financial calculations that need to be done in real life.

**Findings of the ASER 2023**

## Findings of the ANNUAL STATUS OF EDUCATION REPORT (ASER) 2023



<p><b>Trends on basic learning</b> </p> <ul style="list-style-type: none"> <li>➤ Overall (of those aged 14-18), a quarter (26.5%) could not read a Class 2-level textbook in their regional language, and a little less than half (42.7%) could not read sentences in English.</li> <li>➤ Of those who can read these sentences, over a quarter (26.5%) did not understand the meaning of what they were reading.</li> <li>➤ More than half of the surveyed students (56.7%) could not solve a simple 3-digit by 1-digit division problem.</li> <li>➤ The ability to do division is seen as a proxy for the ability to do basic arithmetic operations.</li> </ul>	<p><b>Arithmetic proficiency</b> </p> <ul style="list-style-type: none"> <li>➤ 45% of youths in the surveyed group have basic arithmetic proficiency.</li> <li>➤ The rest need to ‘catch up’ as low levels of foundational numeracy affect the ability of youth in tackling everyday calculations (say, for financial computations).</li> </ul> <p><b>Enrollment in different streams</b> </p> <ul style="list-style-type: none"> <li>➤ The survey shows that more than half (55.7%) of the young people in this age group were enrolled in the Arts/Humanities stream, followed by STEM (31.7%) and Commerce (9.4%).</li> <li>➤ More males report enrolling in the STEM stream (36.3%) than females (28.1%).</li> </ul>	<p><b>Application of basic skills to everyday calculations</b> </p> <ul style="list-style-type: none"> <li>➤ 85% of surveyed youths can measure length using a scale when the starting point is 0 cm but this drops sharply to 39% when the starting point is moved.</li> </ul> <p><b>Use of social media</b> </p> <ul style="list-style-type: none"> <li>➤ Interestingly, the survey found that 90.5% of the youths in this age group reported having used social media in the reference week, with a slightly higher proportion of males (93.4%) than females (87.8%).</li> <li>➤ It was observed that “of all youths who used social media, only about half are familiar with online safety settings that were</li> </ul>
<p><b>Use of smartphones</b> </p> <ul style="list-style-type: none"> <li>➤ Around 89% of those surveyed had a smartphone in the household and 92% said they knew how to use it - signalling a shift that has gathered force in the pandemic years &amp; after.</li> </ul>		

**Significance of the report**

- ✓ For nearly two decades, **ASER reports have consistently pointed to deficiencies among children** in elementary school with regard to foundational skills like reading and basic arithmetic.
- ✓ This year’s **focus on an older age group** also points to a similar gap in learning outcomes at higher levels.
- ✓ The report reveals that **children continue to struggle with basic reading** and arithmetic skills well into their

teenage years, even after reaching Class 10 and higher secondary levels of education.

- ✓ The findings point to a **huge skill deficit among adolescents**.

**EXPECTED QUESTION FOR UPSC CSE**

**Descriptive Question**

Q. In the light of ASER report, highlight the reforms needed in education sector. [15 Marks] [250 Words]

## CONCERNS RELATED TO EXAMINATION SYSTEM

**Why in News:** Recurrent scandals, inconsistent standards, and a pervasive focus on rote memorization have raised concerns about the effectiveness of the existing examination system in India.

# CONCERNS RELATED TO EXAMINATION SYSTEM

## Concerns Regarding the Existing Examination System in India

### Credibility and Educational Standards

- ▶ Scandals during examination seasons impact the credibility.
- ▶ Lack of credibility affects educational standards as teaching aligns with examination patterns, often promoting rote learning.

### Short-Term Memorisation

- ▶ Midterms, semester exams, and unit tests provide a lighter schedule but encourage short-term memorization.
- ▶ Education **should focus on long-term learning**, internalizing knowledge rather than short-term memorization.



### Assessment Quality

- ▶ The validity and comparability of the summative examination across institutions are meaningless today.
- ▶ There are complaints that examination boards test only memory, leading to students being coached to memorize answers rather than develop higher-order thinking.

### Decentralised System

- ▶ Secrecy and standardization are considered hallmarks of good examination boards but **secrecy without proper checks** leads to scandals.
- ▶ Uniformity in examinations, while seeking consistency can hinder experimentation in assessment and curriculum.

### Impact on Employability

- ▶ Employers rely on their assessments rather than institutional certifications for evaluating candidates.
- ▶ This has created a **coaching market for competitive examinations** and skilling.

## Steps to Address the Challenges in the Examination System

### Ensuring Learning Outcomes

- ▶ **Specify minimum standards** of learning outcomes to provide a clear benchmark.
- ▶ Encourage academics across disciplines to contribute to curriculum design, pedagogy, and assessment systems.

### Subject and Skill-Specific Assessments

- ▶ Expect university degrees and school board certificates to truly reflect the learning achievements of students.
- ▶ Advocate for comprehensive and challenging assessments that distinguish students based on their academic attainments.



### External Audit of Assessment Systems

- ▶ Conduct regular external audits of assessment systems in universities and school boards.
- ▶ Establish benchmark principles and standards for audit reports, ensuring reliability and consistency.

### Transparency Measures for Students

- ▶ Implement measures for transparency, allowing students to access the evaluation process and address grievances.

### Leverage Technology for Credibility

- ▶ Utilize technology in assessments to enhance credibility, standardizing question papers and evaluations.

## Conclusion

Examination system plays a pivotal role in shaping learning outcomes and determining the credibility of academic certifications, so its sanctity must be preserved.

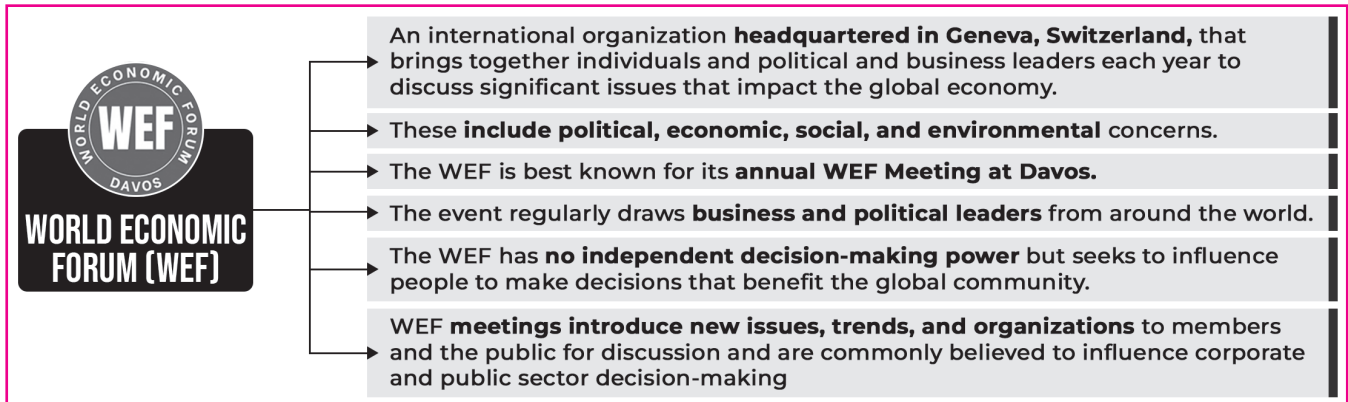
## GLOBAL ALLIANCE FOR GLOBAL GOOD

**Why in News:** India successfully established a “Global Alliance for Global Good - Gender Equity and Equality” to promote women’s empowerment and gender equality.

### About Global Alliance for Global Good

- It is an **alliance for global good, gender equity, and equality** established by India on the sidelines of the 54th annual World Economic Forum (WEF) meeting in Davos.

- The alliance will **bring together worldwide best practices, knowledge sharing, and investment opportunities** in women’s education, health, and enterprise.
- It has garnered **support from industry leaders** such as MasterCard, Uber, Tata, TVS, Bayer, Godrej, the Serum Institute of India, IMD Laussane, and over 10,000 partners from industry through the Confederation of Indian Industry (CII).
- Supported by the Bill and Melinda Gates Foundation**, the alliance will be housed and anchored by the CII Centre for Women Leadership.
- The WEF has come on board as a ‘**Network Partner**’ and Invest India as an ‘**Institutional Partner**’.



### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. The Global Alliance for Global Good - Gender Equity and Equality was recently established by:-

- (a) World Trade Organisation
- (b) UNICEF
- (c) World Economic Forum
- (d) None of the above

Answer: (d)

## STATUS OF ADIVASI LIVELIHOODS REPORT

**Why in News:** Status of Adivasi Livelihoods (SAL) Report, 2022, released by the non-profit organization PRADAN highlights that Food subsidy through Public Distribution System (PDS) has reduced the stress that Adivasi households would have faced due to lower income.

**Aim of report:** To understand the status of livelihoods of Scheduled Tribes from India’s central belt

### Key Highlights of the Report

- The SAL Report, 2022 is based on a household survey covering a sample of 6,019 households.
- The **report revealed that the average annual income for Adivasi households in Madhya Pradesh and in Chhattisgarh is much less than the national average annual income per agricultural household** during the agricultural year 2018-19.
- In Chhattisgarh, the food and other items consumed by an Adivasi household in a year have a market price of almost Rs 18,000.
- Only around 13% of this amount is spent by households to procure those goods.**
  - The remaining 87% of the amount, is the subsidy given by the government.
- An Adivasi household in Madhya Pradesh procures goods from PDS worth Rs 10,000 market price annually, spending only 22% of the amount to procure them.
- In Madhya Pradesh, 32% of Adivasi households, 27 % of non-Adivasi households, and 61% of Particularly Vulnerable Tribal Groups (PVTGs) households reported being severely food insecure.
- In Chhattisgarh, 27% of Adivasi households, 42% of non-Adivasi households, and 29% of PVTG households reported being severely food insecure.

- The areas of Madhya Pradesh’s west, dominated by the Bhil community (which overlaps into neighboring Rajasthan, Gujarat and Maharashtra), had the highest average household income among both Adivasi and non-Adivasi households.
  - It was 1.5 times higher than other regions of the state.
- **Adivasi women enjoy more autonomy** than their non-Adivasi counterparts. But the workload of doing household chores and livelihood activities is mostly borne by Adivasi women.
- **Gender discrimination remains alive in decision-making practices** and also customary practices.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. Status of Adivasi Livelihoods (SAL) Report, 2022 was released recently by:

- (a) Ministry of Tribal Affairs
- (b) Ministry of Social Justice and Empowerment
- (c) NITI Aayog
- (d) None of the above

Answer: (d)

Q2. Consider the following statements regarding Status of Adivasi Livelihoods (SAL) Report, 2022:

1. According to the report Adivasi women enjoy more autonomy than their non-Adivasi counterparts.
2. As per the report, gender discrimination is not seen in decision-making practices and customary practices.

Which of the statements given above is/are correct?

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

Answer: (a)

**NITI AAYOG’S DISCUSSION PAPER ON MULTIDIMENSIONAL POVERTY**

**Why in News:** NITI Aayog’s Discussion Paper ‘Multidimensional Poverty in India since 2005-06’ held that 24.82 crore people escaped multidimensional poverty in last nine years.

**Key details**

- The National Multidimensional Poverty Index (MPI) by Niti Aayog measure the multidimensional poverty in India.

**Multidimensional Poverty**

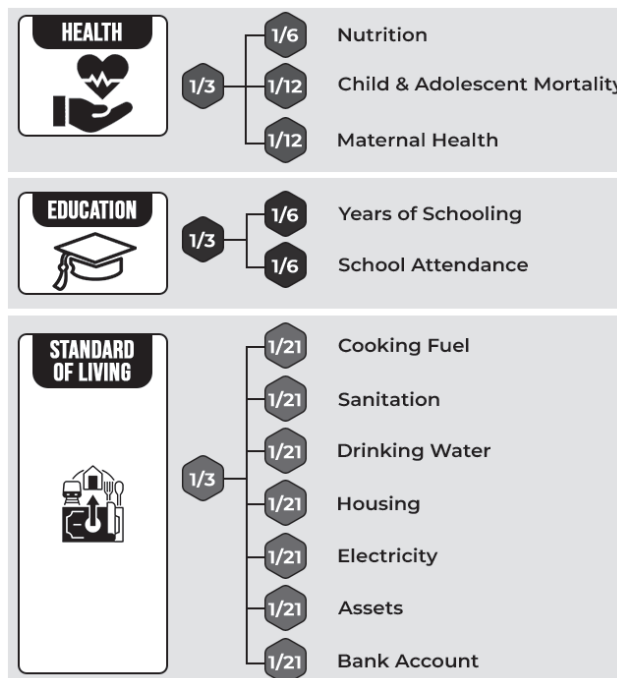
- A person who is poor can suffer **multiple disadvantages at the same time**: for example they may have poor health or malnutrition, a lack of clean water or electricity, poor quality of work or little schooling.
- Focusing on one factor alone, such as income, is not enough to capture the true reality of poverty.
- Multidimensional Poverty is a measure of poverty that captures deprivations in education and access to basic infrastructure in addition to income or consumption **at the \$2.15 international poverty line (as per World Bank)**.
- **World Bank defines the international poverty line at USD 2.15** (in 2017 purchasing power parity terms) daily to measure monetary value.

**National Multidimensional Poverty Index (MPI)**

- **MPI has been used by the United Nations Development Programme (UNDP)** in its flagship Human Development Report since 2010.
- NITI Aayog had published the first edition of national Multidimensional Poverty Index for India in 2021.
- A national MPI statistic for a country is tailored to the **national priorities**.

**MPI Parameters & Methodology**

- The Index is based on the Alkire-Foster (AF) methodology and has three equally weighted dimensions viz **health, education and standard of living**.
- The index is calculated by **first setting the deprivation cut-offs for each indicator**, i.e., the level of achievement considered normatively sufficient for an individual to be considered not deprived in an indicator.
- **Weights are attached to each indicator and a composite metric** is then used to calculate the index.



**Key highlights of the report**

- **Significant decline** from 29.17% in 2013-14 to 11.28% in 2022-23 i.e. a reduction of 17.89 percentage points.
- **Uttar Pradesh topped the list with 5.94 crore people escaping poverty** followed by Bihar at 3.77 crore and Madhya Pradesh at 2.30 crore.
- India likely to achieve SDG Target 1.2 (reducing multidimensional poverty by at least half) well before 2030.

**Government’s goal**

- Government has a goal **to bring down multidimensional poverty to below 1%** and all efforts are being made in that direction.
- The report said India is all set to **reach single-digit poverty levels during 2024.**

**Report highlighted noteworthy initiatives**

- ✓ **Poshan Abhiyan and Anemia Mukd Bharat have significantly enhanced access to healthcare** facilities leading to a substantial decrease in deprivation.
- ✓ **Targeted public distribution system (PDS)** under the National Food Security Act covers 81.35 crore beneficiaries, providing food grains to rural and urban populations.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

- Q1. National Multidimensional Poverty Index is released by:
- (a) Ministry of Social Justice and Empowerment
  - (b) Ministry of Commerce and Industry
  - (c) NITI Aayog
  - (d) Prime Minister’s Office

(c) :Answer

- Q2. With reference to Multidimensional Poverty Index, consider the following statements:

- 1. Health
- 2. Education
- 3. Per capita income
- 4. Standard of living

How many of the above are measures of Multidimensional Poverty Index?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

(c) :Answer

**Descriptive Question**

- Q. How is multi-dimensional poverty measured? Elaborate the policies and programmes for poverty alleviation. [15 marks] [250 words]



to **submit sketches or designs** for tableaux on a broad theme.

- **For example:** Theme of 2024 is 'Viksit Bharat' (Developed India) and 'Bharat-Loktantra ki Matraka' (India-Mother of Democracy).
- The sketch or design must be **simple, colourful, easy to comprehend** and avoid statistical data and unnecessary details.
- Ministry shares basic guidelines that must be included in the proposal like the **use of eco-friendly material and technology**.
- Writing or use of logos on the tableaux is not allowed except for the name of State/UT.

**Committee of Experts**

- The **MoD constitutes a committee of experts** from several fields such as arts, culture & architecture to screen proposals.
- Once the designs are approved post any modifications, **participants present a three-dimensional model of the proposed tableau to the panel**.
- These are examined by experts for final selection.

**Republic Day**

- ✓ Republic Day is celebrated as **the day when India acquired a written Constitution and became an independent republic**.
- ✓ Term 'Republic' indicates that **India has an elected head called the President**.
- ✓ **26<sup>th</sup> January** was chosen to be observed as the **Republic Day** because it was on this day in 1930 when the Indian National Congress declared **Purna Swaraj** or Indian independence from the British regime.

**EXPECTED QUESTIONS FOR UPSC CSE**

**Prelims MCQs**

Q1. Which of the following ministries is responsible for conducting the republic day parade and coordinating arrangements with States and other agencies to showcase their tableaux in the Republic Day Parade?

- (a) Ministry of Home Affairs
- (b) Ministry of Defence
- (c) Cabinet Secretariat
- (d) Ministry of Youth Affairs and Sports

(a) :Answer

Q2. Why 26<sup>th</sup> January was chosen to be observed as Republic Day for India?

- (a) It was on this day that the Quit India Movement started.
- (b) It was on this day in 1930 when the Indian National Congress (INC) declared Purna Swaraj.
- (c) It was on this day when the Revolt of 1857 began.
- (d) It was on this day Mahatma Gandhi returned to India from South Africa.

(b) :Answer

**PARAKRAM DIWAS**

**PARAKRAM DIWAS**

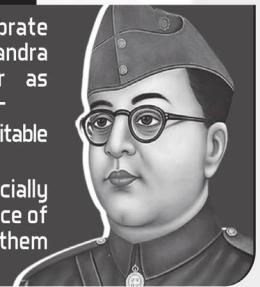
**WHY IN NEWS?**

The Prime Minister, Shri Narendra Modi participated in Parakram Diwas celebrations at the Red Fort in Delhi on January 23rd, 2024.

**WHY IS PARAKRAM DIWAS CELEBRATED?**

The Government of India decided to celebrate the birth anniversary of Netaji Subhas Chandra Bose i.e. **23rd January** every year as "**Parakram Diwas**", or the Day of Valour-

- **To honour and remember Netaji's** indomitable spirit and selfless service to the nation
- **To inspire people** of the country, especially the youth, to act with fortitude in the face of adversity as Netaji did, and to infuse in them a spirit of patriotic fervour."



**NETAJI'S CONTRIBUTION TO INDIAN FREEDOM MOVEMENT**

- Subhas Chandra Bose was born on **23rd January 1897** in Cuttack, Orissa Division, Bengal Province.
- He was **influenced by Vivekananda's teachings** and his **political mentor was Chittaranjan Das**.
- Bose was closely associated with Congress, **advocating for unqualified swaraj (independence)** and opposing the Motilal Nehru Report.
- He participated in the **Salt Satyagraha of 1930** and opposed the suspension of **the Civil Disobedience Movement and the Gandhi-Irwin Pact in 1931**.
- In the 1930s, he was closely associated with left politics in Congress alongside Jawaharlal Nehru and M.N. Roy.
- Bose won the congress presidential elections in **1938 (Haripura) and 1939 (Tripuri)**, but resigned due to ideological differences with Gandhi.
- In 1939, he **founded the Forward Bloc** to consolidate the political left and support base in Bengal.
- In 1943, he announced the **formation of the Azad Hind Government and the Indian National Army (INA)**, which fought allied forces in India.
- Bose died in 1945 when his plane crashed in Taiwan, but there are still conspiracy theories about his death.



EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. With reference to Sarna religion, consider the following statements:

1. Sarna is the indigenous religious faith of tribal communities.
2. They also practice idol worship and adhere to the Varna system
3. According to the National Commission for Scheduled Tribes it is India's largest tribal religion
4. It is officially recognized as a religion in India

How many of the above statements are correct?

- (a) Only one                      (b) Only two  
 (c) Only three                    (d) All four

Answer: (b)

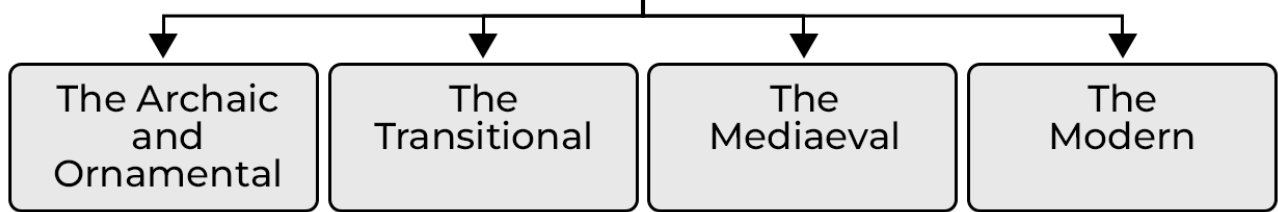
GRANTHAM INSCRIPTIONS

**Why in News:** A team of archaeologists recently discovered two stone inscriptions of 'Grantham' and Tamil dating 11th and 16th centuries respectively at Pazhnchervazhi village near Kangayam.

About Grantham inscription

- Grantha is an important **historical script** that was once used to write Sanskrit throughout South East Asia and greater Tamil Nadu.
- The word Grantha denotes in Sanskrit 'a literary work'. Evidently, the script used for writing the Sanskrit works obtained the same name.
- At one time, it was **prevalent throughout South India**.
- When the Malayalam language began to freely borrow words as well as the rules of grammar from Sanskrit, this script was adopted for writing that language and was known as Arya Ezhuthu.
- **Both Grantha and Tamil scripts appear alike in modern forms.**
  - The evolution of both scripts from Brahmi was also more or less similar.

Development of the Grantha script in Tamil Nadu may be divided into four periods-



- Archaic and ornamental variety is commonly known as Pallava Grantha.
  - Mahendravarman's Tiruchirapalli rock cut cave and other cave temple inscriptions, Narasimhan's Mamallapuram, Kanchi Kailashnath, and Saluvankuppam temple inscriptions, Mutharaiyar's Senthalai inscriptions are examples of this variety.
- The transitional variety of Grantha inscriptions roughly belong to three centuries between 650 CE and 950 CE.
  - Later Pallavas (Nandivarman's Kasakudi, Udayendram plates, etc.) and Pandyan Nedunjadaiyan's Anaimalai inscriptions are examples of this.
- The **mediaeval variety dates from about 950 CE to 1250 CE.**
  - Inscriptions of the imperial Cholas of Thanjavur are examples of this.
- The modern variety belongs to the later Pandyas and Vijayanagar periods.

- It was popular in Tamil Nadu until the early 20th century.
- After the introduction of printing machines, many **Sanskrit books transcribed from palm leaves were printed in Grantha script.**
- After Independence, the popularity of Hindi in Deva Nagari script influenced all printing works, and Grantha script went out of vogue.

EXPECTED QUESTION FOR UPSC CSE

Prelims MCQ

Q. With reference to Grantham script, consider the following statements:

1. It is a historical script that was once used to write Sanskrit.
2. It evolved from the Brahmi script.

3. Various inscriptions of the Cholas of Thanjavur can be found in this script.

Which of the statements given above are correct?

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

Answer: (d)

## VADNAGAR: THE OLDEST CITY

**Why in News:** A joint study by the Indian Institute of Technology (Kharagpur) and Archaeological Survey of India (ASI) has found evidence of cultural continuity in Vadnagar.

### Key Highlights of the Excavation

- **Age of Settlement**
  - Evidence of a human settlement in Vadnagar dating back to as old as 800 BCE.
- **Climate Influence**
  - The rise and fall of different kingdoms over a 3,000-year period and recurrent invasions by Central Asian warriors, are suggested to be driven by severe changes in climate, such as variations in rainfall or droughts.

- **Multicultural and Multireligious Settlement**

- The excavation uncovered **seven cultural stages** including Mauryan, Indo-Greek, Indo-Scythian, Hindu-Solankis, Sultanate-Mughal, and Gaekwad-British colonial rule, up to the present day.

- **Archaeological Artifacts**

- Archaeological artifacts were discovered include **pottery, copper, gold, silver, and iron objects, intricately designed bangles** and coin molds from the Indo-Greek rule.

- **Buddhist Monastery**

- The presence of **one of the oldest Buddhist monasteries in Vadnagar** adds to the historical and cultural richness of the settlement.

- **Radiocarbon Dates**

- Unpublished radiocarbon dates suggest that the settlement could be as old as 1400 BCE, which challenges the notion of a Dark Age.
- **Dark Age** refers to the period between the collapse of the Indus Valley Civilization and the emergence of the Iron Age and cities like Gandhar, Koshal, and Avanti in Indian history.

## ARCHAEOLOGICAL SURVEY OF INDIA (ASI)

ASI, under the Ministry of Culture, is the premier organization for the archaeological research and protection of the cultural heritage of the nation.

1

Maintenance of ancient monuments and archaeological sites and remains of national importance is the prime concern of the ASI.

2

It regulates all archaeological activities in the country as per the provisions of the Ancient Monuments and Archaeological Sites and Remains Act, 1958.

▶ It also regulates Antiquities and Art Treasure Act, 1972.

3

**Founded in 1861 by Alexander Cunningham-** the first Director-General of ASI who is also known as the **"Father of Indian Archaeology"**.

4

### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. Consider the following statements with reference to the Archeological Survey of India:

1. It was founded in 1861 by Alexander Cunningham.
2. It comes under the control of Ministry of Earth Sciences

3. It also regulates Antiquities and Art Treasure Act, 1972

Which of the statements given above is/are correct?

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

Answer: (c)

# GURU GOBIND SINGH JAYANTI

## About Guru Gobind Singhji

- ➔ He was the **10th and last human Guru of the Sikhs**.
- ➔ Born as **Gobind Rai on December 22, 1666**, in Patna, Bihar, Guru Gobind Singh was the son of the ninth Guru of Sikhism, Guru Teg Bahadur.
- ➔ He became the **spiritual and temporal leader of the Sikhs** on November 11, 1675, at the age of nine, following the martyrdom of his father, Guru Tegh Bahadur, at the hands of the Mughal emperor Aurangzeb in 1675.
- ➔ He was renowned as a warrior, a poet, and a prophet.
- ➔ He is fondly **remembered by Sikhs as a defender of the faith** and a champion of equality and justice.
- ➔ Among his notable **contributions to Sikhism are founding the Sikh warrior community called Khalsa in 1699**.
- ➔ He **introduced the Five Ks**, the five articles of faith that Khalsa Sikhs wear at all times.
  - ▶ These are **Kesh: uncut hair, Kangha: a wooden comb, Kara: an iron or steel bracelet worn on the wrist, Kirpan: a sword, and Kacchera: short breeches**.
- ➔ Throughout his life, he engaged in numerous battles against the Mughal Empire and their allies, **totalling 21 battles**.
  - ▶ Some of the **notable battles include** the Battle of Bhangani, the Battle of Nadaun, the Battle of Anandpur, the Battle of Chamkaur, the Battle of Muktsar, and the Battle of Khidrana.



- ➔ He **authored numerous literary works** in various languages.
  - ▶ Among his famous works are Jaap Sahib, the Tav-Prasad Savaiye, and the Benti Chaupai.
- ➔ He further **codified Sikh law, wrote martial poetry and music**, and was the reputed author of the Sikh work called the **Dasam Granth ("Tenth Volume")**.
- ➔ Guru Gobind Singh proclaimed that he was the last of the personal Gurus. From that point forward, **the Sikh Guru was to be the holy book, the Guru Granth Sahib (Sikh Holy Book)**.
- ➔ He was assassinated in 1708, at the age of 41.

### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. Consider the following statements:

1. He founded the Sikh warrior community called Khalsa.
2. He also introduced the Five Ks, the five articles of faith that Khalsa Sikhs wear at all times.
3. He was the reputed author of the Sikh work called the Dasam Granth ("Tenth Volume")

4. He fought the battle of Chamkaur against the Mughal Empire.

The above description is associated to which of the following Sikh Guru?

- |                       |                       |
|-----------------------|-----------------------|
| (a) Guru Nanak        | (b) Guru Angad        |
| (c) Guru Tegh Bahadur | (d) Guru Gobind Singh |

(d) Answer

## ASIAN BUDDHIST CONFERENCE FOR PEACE (ABCP)

**Why in News:** Recently, Asian Buddhist Conference for Peace (ABCP) convened its 12th General Assembly in New Delhi.

- ABCP is a voluntary mass movement of Buddhists in Asia.

### Highlights of Assembly of ABCP

- **Theme:** The Buddhist Voice of Global South.
- **India was featured as a nation guided by the principles of Buddha.**
- Proactive role of India was highlighted in **developing the Buddhist circuit** and establishing the **India International Centre for Buddhist Culture.**

### About Asian Buddhist Conference for Peace

- It was **founded in 1970 at Ulaanbaatar, Mongolia** as a voluntary movement of followers of Buddhism with both monastic (monks) and lay members.
- ABCP then emerged as a collaborative effort of Buddhist dignitaries from India, Mongolia, Japan, Malaysia, Nepal, the then USSR, Vietnam, Sri Lanka, South and North Korea.
- **Headquarters: Gandanthechenling Monastery** in Ulaanbaatar, Mongolia.
- The Supreme Head of Mongolian Buddhists is the current ABCP President.

### Aims of ABCP

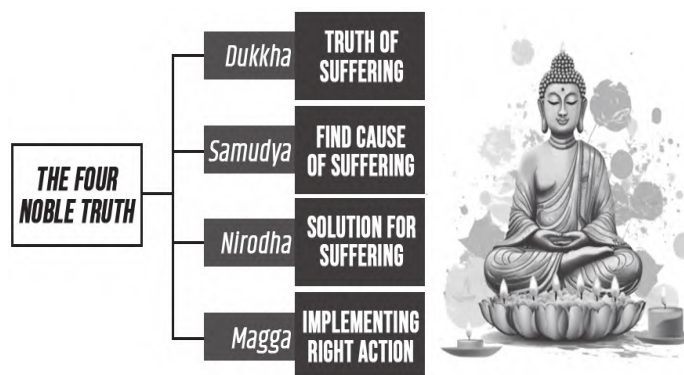
- ✓ Collaborating efforts of Buddhists in support of **consolidating universal peace, harmony and cooperation among peoples of Asia.**
- ✓ **Furthering their economic and social advancement** and promoting respect for justice and human dignity.
- ✓ **Disseminating the Buddhist culture,** tradition and heritage.

### Buddhist Teachings and Good-Governance

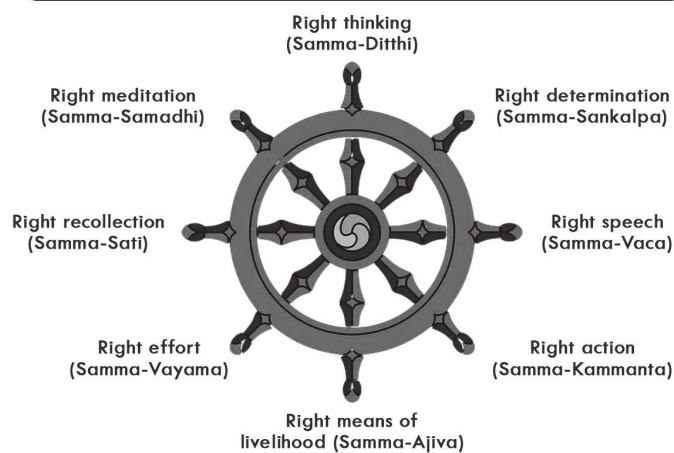
- ✓ **Right View in Policymaking:** Emphasis on Right View, avoids distortion and delusion, aligns with good governance principles of transparency, objectivity, and evidence-based decision-making.
- ✓ **Right Conduct in Leadership:** The Buddha's Five Precepts can be interpreted as ethical guidelines for public officials.
- ✓ **Compassionate Governance:** Compassion encourages leaders to consider the needs and suffering of all citizens, not just certain groups.
- ✓ **Dialogue and Nonviolent Conflict Resolution:** The Buddha's emphasis on Right Speech and Right Action promotes respectful communication and nonviolent solutions to conflict.

### Teachings of Buddha in Navigating Present-Day Challenges

- In an age marked by **ethical uncertainty**, Buddha's teachings provide a path of **sustainability, simplicity, moderation**, and reverence for all life.
- In an age of **constant digital bombardment**, **emphasis on mindfulness** is more poignant than ever.
- With rising social and **political tensions**, the Buddha's teachings on **compassion and understanding** offer a critical antidote.
- The Buddha's concept of the Middle Way, **avoiding extremes of indulgence and denial**, resonates in our consumerist society.



### Eight-fold Path (Astangika-Marga)



### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. Which of the following statements is incorrect regarding Asian Buddhist Conference for Peace?

- (a) It is a voluntary movement of followers of Buddhism with both monastic (monks) and lay members.

- (b) It was founded in 1970 at Ladakh, Jammu and Kashmir.
  - (c) India was featured as a nation guided by the principles of Buddha.
  - (d) All of the above are correct
- (b) :Answer

**DEMAND FOR CLASSICAL LANGUAGE**

**Why in News:** West Bengal Chief Minister urged the central government to include 'Bengali' as a classical language.

**Key details**

- **Criteria evolved by Government of India to determine declaration of a language as a Classical language is as under:**
  - High antiquity of its **early texts/recorded history over a period of 1500-2000 years;**

- A body of **ancient literature/texts**, which is considered a valuable heritage by generations of speakers;
- The **literary tradition be original and not borrowed** from another speech community;
- The classical language and literature being distinct from modern, there may also be a discontinuity between the classical language and its later forms or its offshoots.
- Currently, **six languages enjoy the Classical status:** Tamil (declared in 2004), Sanskrit (2005), Kannada (2008), Telugu (2008), Malayalam (2013), and Odia (2014).
- The **benefits it provides** once a language is notified as a Classical language:
  - **Two major annual international awards** for scholars of eminence in classical Indian languages.
  - A **Centre of Excellence for studies** in Classical Languages is set up.
  - The **University Grants Commission is requested to create**, to start with at least in the Central Universities, **a certain number of Professional Chairs** for the Classical Languages so declared."

## KEY FACTS ABOUT BENGALI LANGUAGE

The infographic features a central black box with the Bengali word 'বাংলা' (Bangla) written in white. Four lines radiate from this central box to four surrounding text blocks. The top-left block states it is an official language of West Bengal. The top-right block notes it is written from left to right. The bottom-left block mentions it is the second most spoken language in India and the seventh most spoken in the world. The bottom-right block highlights the rich heritage and culture of Bengali people dating back to prehistoric times.

- EXPECTED QUESTIONS FOR UPSC CSE**
- Prelims MCQs**
- Q1. Consider the following statements:
1. High antiquity of its early texts/recorded history over a period of 100-200 years.
  2. A body of ancient literature/texts, which is considered a valuable heritage by generations of speakers.
  3. The literary tradition should not be borrowed from another community.

4. Discontinuity between the classical language and its later forms or its offshoots.
- How many of the above are criteria evolved by Government of India to determine declaration of a language as a Classical language?
- (a) Only one                      (b) Only two
- (c) Only three                      (d) All four
- (c) :Answer

Q2. Consider the following statements regarding Bengali language:

1. It is the second most spoken language in India.
2. It is a classical language of India.
3. Bengali is written from right to left.

Which of the statements given above is/are correct?

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

Answer: (a)

## FARSI LANGUAGE

**Why in News:** Recently, the External Affairs Minister announced that the Government of India has decided to include Farsi (Persian) as one of the classical languages in India under the New Education Policy.

### About Farsi Language

- **Farsi**, also known as **Persian Language**, is the most widely spoken member of the Iranian branch of the Indo-Iranian languages.
- It is the **official language of Iran** and has about 62 million native speakers, ranking among the world's 20 most widely spoken first languages.
- Farsi is **written in a Perso-Arabic script**, which has some innovations to account for Persian phonological differences.
- Its relatives include the languages of northern India and major European languages like English.

### Key Facts about Classical Languages in India

- The Government of India defines a language as a Classical language based on its **high antiquity, valuable heritage, original literary tradition, and distinctness from modern forms**. Currently, six languages, including **Tamil, Sanskrit, Kannada, Telugu, Malayalam, and Odia**, hold this status, with the distinction between the classical language and its later forms or offshoots.

### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. Consider the following statements regarding Farsi language:

1. It belongs to the sub-family of Indo-Iranian languages.
2. Recently, it was included in the Eighth Schedule of the Indian Constitution.

Which of the statements given above is/are correct?

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

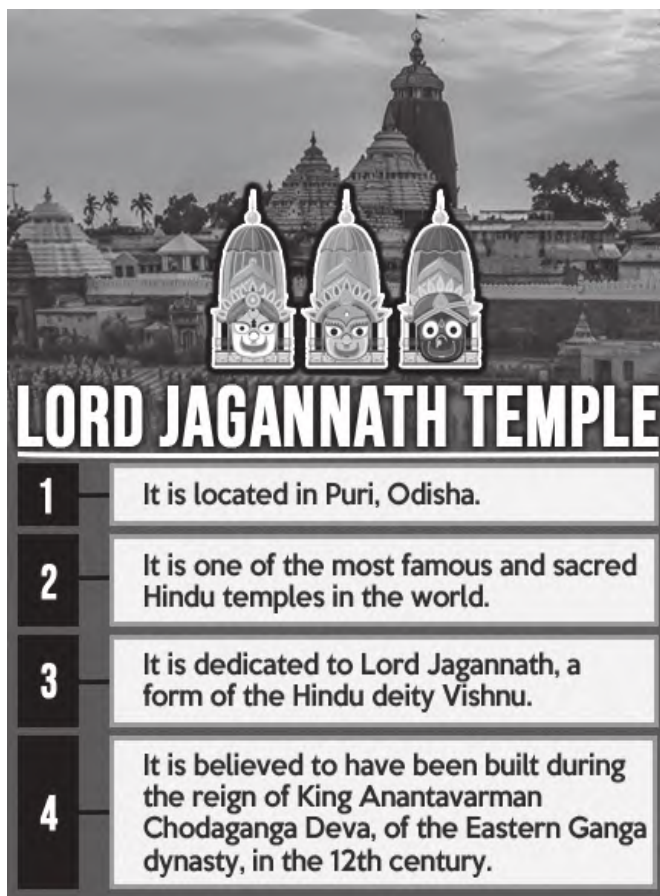
Answer: (a)

## JAGANNATH TEMPLE

**Why in News:** Chief Minister of Odisha unveiled a sprawling heritage corridor around the Jagannath Temple in Puri.

### Architecture

- The **Jagannath Temple** is a striking example of **Kalinga architecture**, a distinct style prevalent in the Odisha region.
- The temple's main structure, the **sanctum sanctorum**, or the **garbhagriha**, houses the idols of **Lord Jagannath, Balabhadra, and Subhadra**.
- **Ratha Yatra** is a Hindu festival associated with Lord Jagannath held at Puri in Odisha.
- The most famous **Rath Yatra festival** begins on the second day of the bright half of the lunar month of **Ashadha** (June–July) and lasts for nine days.



**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. With reference to the Jagannath Temple, consider the following statements:

1. It was built during the reign of King Anantavarman Chodaganga Deva in the 12th century.
2. The Jagannath Temple is built in the Kalinga architecture
3. Lord Jagannath is a form of the Lord Shiva.

Which of the statements given above is/are correct?

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

Answer: (a)

**PRADHAN MANTRI RASHTRIYA BAL PURASKAR 2024**

**Why in News:** Recently, the President of India, Smt. Droupadi Murmu conferred the “Pradhan Mantri Rashtriya Bal Puraskar” instituted by the Ministry of Women and Child Development, Government of India to 19 children.

**Key Details:**

- **Awarded annually by:** The Ministry of Women and Child Development (MoWCD)
- **Award Given to:** Children residing in India, above the age of 5 years and not exceeding 18 years (as on 31st August of respective year) with **exceptional abilities and outstanding achievement**
- **Categories:** Bravery, Art & Culture, Environment, Innovation, Science & Technology, Social Service, and Sports.

- **Objective:** Encourage children who had shown exceptional achievement in any field including academics, arts, culture and sports etc.
- Each awardee receives a **Medal, a Certificate, and a Citation Booklet.**
- **Nature of Awards - The two categories covered under the National Children Awards are as follows:**
  - **Bal Shakti Puraskar** (earlier called National Child Award)
    - ◆ These awards are to be given as recognition to children with exceptional abilities and outstanding achievement in the fields of innovation, scholastic achievements, sports, arts & culture, social service and bravery which deserves recognition.
    - ◆ Each awardee will be given a medal, a cash prize of Rs. 1,00,000/-, book vouchers worth Rs. 10,000/-, a certificate and citation.
  - **Bal Kalyan Puraskar** (earlier called National Child Welfare Award)
    - **Individual** - These Awards are given as recognition to individuals who have made an outstanding contribution towards service for children in the field of Child Development, Child Protection and Child Welfare for not less than 7 years and have a positive impact on the lives of children. The number of awards would be 3 (three). The award consists of a cash prize of Rs. 1, 00,000/ - (one lakh), a citation and a certificate to each awardee.
    - **Institution** - These awards are given to institutions who have done exceptional work for the cause of children in any field of child welfare. The number of awards would be 3(three). The award for institution consists of a prize of Rs. 5,00,000/ - each and a citation and a certificate.

# GOVERNMENT SCHEMES

## PRADHAN MANTRI SURYODAYA YOJANA

**Why in News:** Recently, the Indian PM announced the 'Pradhan Mantri Suryodaya Yojana', to provide rooftop solar power systems to one crore households.

### About Pradhan Mantri Suryodaya Yojana

- With the aim of **achieving a 40 GW rooftop solar capacity target**, this initiative seeks to facilitate the installation of solar power systems on residential rooftops.
- This initiative would help **not only reduce** electricity bills for low and middle-income households while advancing India's objective of energy self-sufficiency.

### Features of the Scheme

- A consumer can avail of benefits of the scheme through DISCOM tendered projects or through the National Portal solarrooftop.gov.in
- The DISCOMs role is limited to **issuing of technical feasibility approval**, installation of net-meter and inspect the system.
- **Net metering is a billing mechanism** that credits solar energy system owners for the electricity they add to the grid.
  - Surplus solar power units generated from the rooftop solar plant can be **exported to the grid**.
  - The consumer can receive monetary benefits for

the surplus exported power as per the prevailing regulations.

### Earlier efforts

- The government launched the **Rooftop Solar Programme**. This had aimed to achieve a cumulative installed capacity **40 gigawatts (GW) by 2022**.
- This aimed to expand India's rooftop solar installed capacity in the residential sector by providing Central Financial Assistance and incentives to DISCOMs (distribution companies).

### INDIA'S CURRENT SOLAR CAPACITY

#### Installed capacity

- Solar power installed capacity in India has reached around **73.31 GW** as of December 2023 (Source: Ministry of New and Renewable Energy).
- **Rooftop solar installed capacity is around 11.08 GW** as of December 2023.
- Solar power has a major share in the country's current renewable energy capacity, which stands at around 180 GW.

#### High performing states

- **Rajasthan (18.7 GW) > Gujarat (10.5 GW)**
- When it comes to rooftop solar capacity, Gujarat tops the list with 2.8 GW, followed by Maharashtra by 1.7 GW.

## NEED FOR AN EXPANSION OF SOLAR ENERGY IN INDIA

World Energy Outlook by the International Energy Agency (IEA) held that India is expected to witness the largest energy demand growth of any country or region in the world over the next 30 years.

IEA is an intergovernmental organization that provides data, policy recommendations, and analysis on the global energy sector.

IEA's goal is to help countries provide sustainable and secure energy for everyone.

To meet this demand, the country would need a reliable source of energy and it can't be just coal plants.

Although India has doubled down on its coal production in recent years, it also aims to reach **500 GW of renewable energy capacity by 2030**.

EXPECTED QUESTION FOR UPSC CSE

**Descriptive Question**

Q. Examine the status of solar energy in India. Also highlight the features of Pradhan Mantri Suryodaya yojana. [15 Marks] [250 Words]

**PRADHAN MANTRI ANUSUCHIT JAATI ABHUYDAY YOJANA**

**Why in News:** Ministry of Social Justice and Empowerment highlighted the Pradhan Mantri Anusuchit Jaati Abhuyday Yojana (PM-AJAY) is a comprehensive scheme amalgamating three Centrally Sponsored Schemes.

**PRADHAN MANTRI ANUSUCHIT JAATI ABHUYDAY YOJANA**

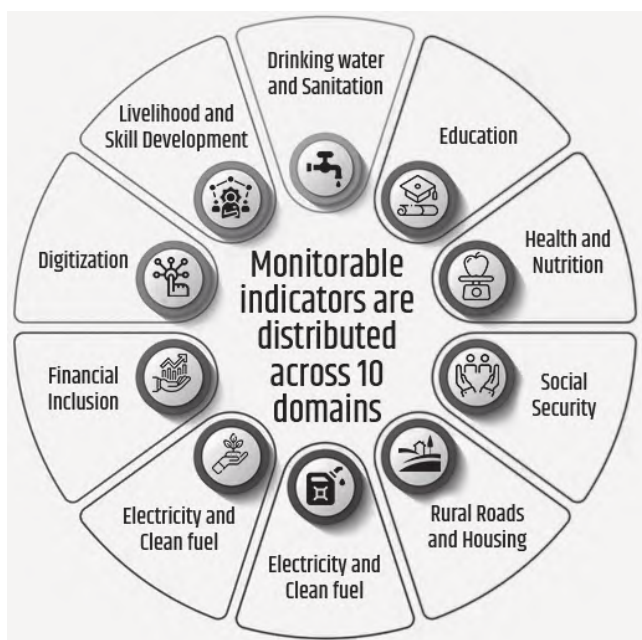
It amalgamates Pradhan Mantri Adarsh Gram Yojana (PMAGY), Special Central Assistance to Scheduled Castes Sub Plan (SCA to SCSP), and Babu Jagjivan Ram Chhatrawas Yojana (BJRCY).

**Objectives**

- » Reduce poverty in the SC communities by the generation of additional employment opportunities through skill development, income-generating schemes and other initiatives.
- » To increase literacy and encourage enrolment of SCs in schools and higher educational institutions by providing adequate residential facilities in quality institutions, in the aspirational districts/SC majority blocks and elsewhere in India.

**Components of PM-AJAY**

- **Development of SC-Dominated Villages into an Adarsh Gram:**
  - This component was formerly known as Pradhan Mantri Adarsh Gram Yojana (PMAGY) and the objective of this component is to ensure integrated development of SC-majority villages.
  - **Provide adequate infrastructure** for socio-economic development needs.
  - Target **improvement in identified socio-economic indicators.**



- **Eliminate disparity** between SC and non-SC population.
- **Ensure completion of education up to at least the secondary level** for all SC children.
- Address factors leading to maternal and infant mortality.
- Eliminate the incidence of malnutrition especially among children and women.

**'Grants-in-aid' for District/State-level Projects**

- The scheme **aims at the socio-economic development of SCs** through grants for the following types of projects
  - **Comprehensive Livelihood Projects** create an entire eco-system for producing sustainable income, or social advancement to the SCs only shall be taken up.
  - **Skill Development** courses as per norms of the Ministry of Skill Development and Entrepreneurship. Skill Development Institutions can also be funded.
  - **Creation/Acquisition of Assets for Beneficiaries/ Households** project crucial for livelihoods.
  - **Infrastructure development** related to the project and also Hostels and residential schools.

**Construction of Hostels in Higher Educational Institutions**

- It enables and **encourages SC students to attain quality education and reduce dropout rate.**
- The cost norms for construction/expansion of hostels will be as under:
  - North Eastern Region: Rs.3.50 lakh per inmate.
  - Northern Himalayan Regions: Rs.3.25 lakh per inmate.

- Gangetic Plains & Lower Himalayan Region: Rs3.00 lakh per inmate.
- 100% Central assistance for hostels for boys 'hostels as well- earlier it was cost sharing with the State.

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. With reference to PM-AJAY scheme, consider the following statements:

1. It aims to provide financial incentives in the form of Direct Benefit Transfer to eligible females belonging to the Other Backward Castes.
2. It also aims to eliminate the incidence of malnutrition especially among children and women.

Which of the statements given above is/are correct?

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

Answer: (b)

- It aims to enhance India’s manufacturing capabilities for Advanced automotive products.
- This decision has been made after receiving the approval of the Empowered Group of Secretaries (EGoS).
- Companies failing to meet the first year’s sales increase threshold will not receive incentives for that year.
  - However, they remain eligible for future benefits by achieving a 10% year-on-year growth over the first year’s threshold.

**About Production Linked Incentive Scheme**

- PLI scheme is a government initiative in India that offers **financial incentives to companies** based on their **incremental sales of products** manufactured in India.
- The scheme **aims to drive domestic manufacturing**, spur job creation, bolster exports, facilitate technology transfer, and diminish import reliance.

**Key Features**

- ✓ The scheme is currently **active in 14 key sectors**: mobile manufacturing, manufacturing of medical devices, automobiles and auto components, pharmaceuticals, drugs, specialty steel, telecom & networking products, electronic products, white goods (ACs and LEDs), food products, textile products, solar PV modules, advanced chemistry cell (ACC) battery, and drones and drone components.
- ✓ The **incentive rate varies depending on the sector and product category**, but can range from 4% to 6% of incremental sales.

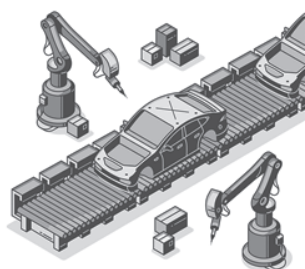
**PLI SCHEME FOR AUTO INDUSTRY**

**Why in News:** Ministry of Heavy Industries has recently extended the tenure of the Production Linked Incentive (PLI) Scheme for Automobile and Auto Components by one year

**About the Scheme**

- The scheme with incentives is now applicable for five consecutive financial years starting from 2023-24 i.e. until 2027-28.

**STATUS OF THE AUTOMOBILE SECTOR IN INDIA**



India is the world’s third-largest automobile market.



The Automobile Sector resulted in 5.41% of the total FDI inflow as per the September 2023 DPIIT Report.



Electric Vehicle market is expected to grow at a CAGR of 49% between 2022-2030 and the EV industry would create 5 Mn direct and indirect jobs by 2030.



**Related Government Initiatives**

- FAME Scheme
- Automotive Mission Plan 2016-26 (AMP 2026)

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. With reference to Production Linked Incentive Scheme, consider the following statements:

1. It offers financial incentives to Indian companies based on their cost of production and economic value of manufactured products.
2. The main aim of the scheme is to push domestic manufacturing and reduce imports.

Which of the statements given above is/are correct?

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

Answer: (b)

## PRITHVI VIGYAN SCHEME

**Why in News:** Union Cabinet recently approved the comprehensive scheme "PRITHvi Vlgyan (PRITHVI)" by the Ministry of Earth Sciences.

### Key Details

- This initiative spans five sub-schemes, aiming to enhance Earth System Sciences and provide crucial services for societal, environmental, and economic well-being.
- Agreement between the Indian Space Research Organisation (ISRO) and Mauritius Research and Innovation Council (MRIC) to jointly develop a "small satellite."
- India and Mauritius have a history of cooperation since the 1980s
  - ISRO established a ground station in Mauritius for tracking and telemetry support for ISRO's launch vehicle and satellite missions.

# About "PRITHvi Vlgyan (PRITHVI)" Scheme

- It is an overarching scheme of the **Ministry of Earth Sciences (MoES)** for the period from 2021 to 2026.

It encompasses **ongoing sub-schemes** namely:

### 1 ACROSS:

- Atmosphere and Climate Research-Modelling Observing Systems & Services.

### 2 O-SMART:

- Ocean Services, Modelling Application, Resources and Technology.

### 3 PACER:

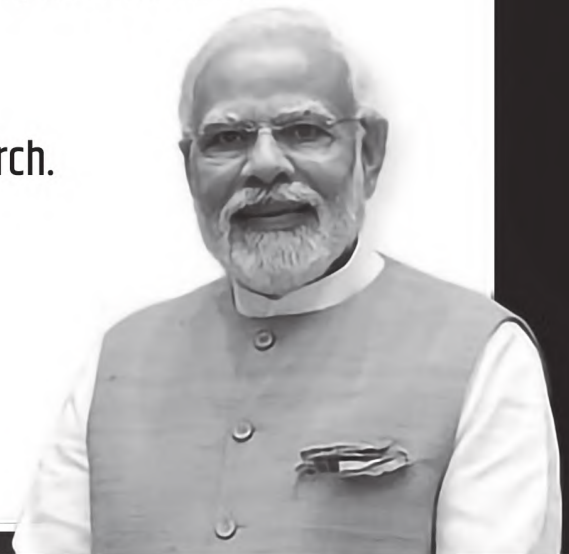
- Polar Science and Cryosphere Research.

### 4 SAGE:

- Seismology and Geosciences

### 5 REACHOUT:

- Research, Education, Training and Outreach.



- This holistic approach aims to enhance understanding and deliver reliable services for the country.



➤ **National Fellowship for SCs:**

- ◆ Fellowship is provided to Scheduled Castes students for **pursuing higher education** leading to **M.Phil./ Ph.D. degrees** in Indian Universities/Institutions/ Colleges **recognized by University Grants Commission (UGC)**.
- ◆ **Implementation:** By National Scheduled Castes Finance and Development Corporation

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. Consider the following statements regarding SHREYAS scheme:

1. Under the scheme, financial assistance is provided to Scheduled Castes and Other Backward Castes for pursuing higher studies.

2. It also provides interest subsidy on educational loans for overseas studies.
3. The nodal ministry is Ministry of Education.

How many of the statements given above are correct?

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

(b) Answer

## CORRUPTION PERCEPTIONS INDEX 2023

**Why in News:** India ranked 93 out of 180 countries on the corruption perceptions index for 2023.

### CORRUPTION PERCEPTION INDEX 2023

Top rankers			India and its neighbouring countries		
Country	Rank 2023 (Score)	Rank 2022 (Score)	Country	Rank 2023 (Score)	Rank 2022 (Score)
Denmark	1 (90)	1 (90)	India	93 (39)	85 (40)
Finland	2 (87)	2 (87)	China	76 (42)	65 (45)
New Zealand	3 (85)	2 (87)	Pakistan	133 (29)	140 (27)

### About Corruption Perceptions Index 2023

- Released by: Transparency International
- It ranks 180 countries and territories by their perceived levels of public sector corruption according to experts and business people.
- It uses a scale of 0 to 100, where 0 is highly corrupt and 100 is very clean.

GLOBAL	INDIA
<b>Top Countries</b> <ol style="list-style-type: none"> <li>Denmark (Score- 90)</li> <li>Finland (Score- 87)</li> <li>New Zealand (Score-85)</li> </ol> <b>Bottom Positions</b> <ul style="list-style-type: none"> <li>Somalia</li> <li>Venezuela</li> <li>Syria</li> <li>South Sudan</li> <li>Yemen</li> </ul>	<b>Rank (2023)</b> <ul style="list-style-type: none"> <li>➤ 93 out of 180</li> </ul> <b>Score (2023)</b> <ul style="list-style-type: none"> <li>➤ 39</li> </ul> <b>Note:</b> In 2022, India was ranked 85 with a score of 40.

### Transparency International (Found in-1993)

- ✓ An international NGO founded by former employees of the World Bank.
- ✓ HQs: Berlin, Germany
- ✓ **Purpose:** To take action to combat global Corruption with civil societal anti-corruption measures and to prevent criminal activities arising from corruption
- ✓ It also publishes the Global Corruption Barometer.

## PENAL COLONIES OF RUSSIA

**Why in News:** Jailed Russian opposition leader Alexei Navalny has been located in a penal colony north of the Arctic Circle.

### Key details

- The IK-3 penal colony is also known as "the Polar Wolf" colony and is located in Kharp in the Yamal-Nenets region, which is about 1,900 km northeast of Moscow.
- What are penal colonies in Russia?

- Penal colonies of Russia are known for their **harsh living conditions**.
- They are **descendants of gulags** — the **Stalin-era forced labour camps** that existed throughout the Soviet Union and where more than a million died.
- There are around **700 penal colonies** across Russia housing an estimated half a million prisoners.
- Prisoners are placed in barracks instead of individual cells and are **forced to perform daily labour**.
- Prisoners in such colonies are divided into **four categories** based on the **severity of the crime committed**.
- The **IK-3 or Polar Wolf penal colony** is considered to be the **toughest prison** in Russia.

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. The Polar Wolf colony, recently seen in the news, refers to:

- (a) A community of nomadic people living in the Arctic
- (b) The last surviving colony of wolves in the polar region
- (c) Penal colony of Russia known for its harsh living conditions
- (d) A settled colony of scientists in the Antarctica

Answer: (c)

**AROGYA MAITRI CUBE**

# AROGYA MAITRI CUBE

**Why in News?** Arogya Maitri disaster management Cube were deployed in Ayodhya to bolster medical readiness and response capabilities during the 'Pran Pratishtha' ceremony.

**Key Details**

- It is a **revolutionary mobile hospital equipped** with cutting-edge technology.
- This cube is a part of the broader initiative named **"Project BHISHM"** – Bharat Health Initiative for Sahyog, Hita and Maitri.



## Features

It is tailored to **treat up to 200 casualties**, emphasising rapid response and comprehensive care.

The Aid Cube is equipped with several innovative tools designed to enhance disaster response and medical support during emergencies.

It integrates **Artificial Intelligence (AI) and data analytics** to facilitate effective coordination, real-time monitoring, and efficient management of medical services in the field.

The whole unit contains 72 easily transportable components that can be conveniently carried by hand, cycle, or even drone, providing unmatched flexibility.

These cubes are **robust, waterproof, and light** designed for various configurations, making them ideal for diverse emergency scenarios.

It has **advanced medical equipment, RFID-tagged** for efficient repacking and redeployment.

The state-of-the-art BHISHM software system integrated into a provided tablet allows operators to locate items quickly, monitor their usage and expiry, and ensure readiness for subsequent deployments.

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. Consider the following statements regarding Arogya Maitri cube:

1. It is a mobile hospital equipped with cutting-edge technology.
2. It was recently set up by India in war struck countries like Palestine for treatment of casualties.
3. It integrates Artificial Intelligence and data analytics into the system.

How many of the above statements are correct?

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

(b) :Answer

**AUSTRALIAN OPEN**

**Why in News:** Sumit Nagal, by defeating Kazakhstan’s Alexander Bublik in the opening round of the Australian Open became **the first Indian since 1989 to defeat a seeded player at a Grand Slam.**

**Key details**

- Though he ended an 11-major drought by securing Indian representation in the Australian Open singles main draw after three years with a victory over Alex Molcan.
- **Grand Slam tournaments, also called majors,** are the four most important annual tennis events.

# GRAND SLAM TOURNAMENTS



**Australian Open**

- Country - **Australia**
- First Grand Slam tournament of the year
- Played on **hard courts**

**French Open**

- Country - **France**
- Second Grand Slam tournament of the year
- Played on clay courts

**"Wimbledon"**

- Country - **England**
- Third Grand Slam tournament of the year
- Played on grass courts

**US Open**

- Country - **U.S.A**
- Fourth & Last Grand Slam tournament of the year
- Played on hard courts

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. Grand Slam, sometimes in the news is a tournament related to which of the following sport?

- (a) Badminton                      (b) Tennis  
 (c) Cricket                      (d) Hockey

(b) :Answer

# PANAMA CANAL

**Why in News:** Scientists recently stumbled upon a lost forest in the Panama Canal, dating back around 22 million years.

# Panama Canal



- > It is an **artificial waterway that connects the Atlantic Ocean with the Pacific Ocean.**
- > The **canal cuts across the Isthmus of Panama** and is a conduit for maritime trade.
- > It was cut through one of the narrowest saddles of the isthmus that joins North and South America.
- > It is **one of the two most strategic artificial waterways in the world**, the other being the Suez Canal.
- > It is **approximately 80 kilometres long.**
- > It consists of a **series of locks that raise and lower the water level** to facilitate the passage of ships through the continental divide.

## Evolution

- > **France began work on the canal in 1881**, but financial troubles and diseases made the initiative fail.
- > The **United States took over the project on May 4, 1904**, and opened the canal on August 15, 1914, and then **managed the waterway until 1999.**
- > On December 31, 1999, **Panama took over full operation, administration, and maintenance of the Canal**, in compliance with the **Torrijos-Carter Treaties** negotiated with the United States in 1977.

### EXPECTED QUESTION FOR UPSC CSE

#### Prelims MCQ

Q. With reference to the Panama Canal, consider the following statements:

1. It is an artificial waterway

2. It connects the Indian Ocean with the Pacific Ocean.

Which of the statements given above is/are correct?

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

Answer: (a)

## SENEGAL'S PINK LAKE 'RETBA'

**Why in News:** The Lake Retba of Senegal is on the verge of extinction due to pollution and mining.

### About Lake Retba (Lac Rose or Pink Lake)

- It is located north of the Cap Vert peninsula in **Senegal** in **northwest Africa**.
- It is **separated** from the **Atlantic Ocean** only by a narrow corridor of dunes.

- Its **fresh water** comes from the **seasonal water table** in the dunes, which are higher than the lake.
- It is known for its **high salt content**, which is mainly due to the ingress of seawater and its subsequent evaporation.
- It is one of the **main tourist destinations in the Dakar region**, primarily because of the pink colour of its waters.
- **Reason behind its 'pink' colour:** The pink coloration is caused by **Dunaliella salina** algae, halophilic green algae.

## ATAL SETU NHAVA SHEVA SEA LINK

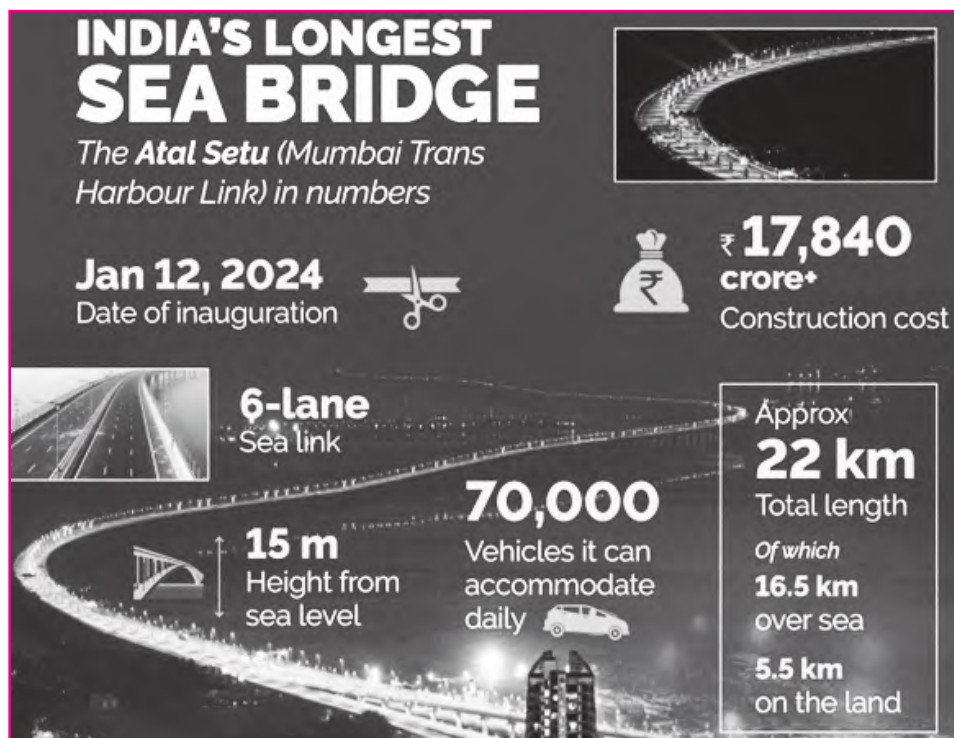
**Why in News:** The PM of India inaugurated the country's longest bridge over the sea - the 22 km Mumbai Trans Harbour Link (MTHL), officially the **Atal Setu Nhava Sheva Sea Link**.

### About Atal Setu Nhava Sheva Sea Link

- It was first **conceptualised six decades ago** will cut the

travel time between Sewri (Mumbai) and Chirle (Raigad) to under 20 minutes.

- It is a **22-km-long twin-carriageway** six-lane bridge over the Thane Creek in the Arabian Sea, connecting Sewri in the island city of Mumbai to Chirle in Raigad district on the mainland.
- The MTHL includes a 16.5 km sea link and viaducts on land at either end with a cumulative length of 5.5 km.
- The objective of the **project is to improve connectivity** in the Mumbai Metropolitan Region.



### The Idea of a Bay Crossing

- The project got moving after **MMRDA entered into an agreement with Japan International Cooperation Agency (JICA)**, which agreed to fund 80% of the project cost.
- The project was **executed by the MMRDA on an Engineering Procurement Contract (EPC) basis**.
- While the Indian PM laid the foundation stone of the project in (Dec) 2016, the deal and tendering were finally completed in (Dec) 2017, and work commenced in early 2018.

### Challenges Encountered During the Construction

- The most arduous part of the project was the **construction of the segments that lie in the marine portion**.
- Here, engineers and workers had to **dig as deep as 47 metres in the sea bed** to provide strong foundations to hold up the massive girders and deck of the bridge.
- The fact that the bridge lies **close to sensitive establishments like ONGC, JNPT and BARC** made the **construction of these segments more difficult**.

- Engineers have to **take care that they do not damage any underwater installations** such as pipelines or communication cables.

**Persistence concerns**

- While the project has obvious benefits, there are **doubts on whether it will be of help to regular commuters who travel between Mumbai and Navi Mumbai every day.**
- **Rs 250 toll** for a one-way crossing of the Trans Harbour Link is **deemed to be high.**
- Also, the **landing points of the bridge** on the mainland side are **more than 10 km away** from the main residential areas.
- **No public transport facilities have been announced** on the bridge yet.

**Benefits of MTHL**

- ✓ **MTHL will bring down the average travel time** between Sewri and Chirle from 61 minutes currently to less than 16 minutes and will decongest the existing route over the Vashi bridge.
- ✓ The project will **facilitate greater economic integration** of Navi Mumbai with Mumbai, with benefits extending to Panvel, Alibaug, Pune, and Goa.
- ✓ It will **significantly improve connectivity** between South Mumbai and the under-construction Navi Mumbai International Airport, the Mumbai Pune Expressway,

the Mumbai-Goa Highway, and the main hinterland in general.

- ✓ It will also provide **improved access to Jawaharlal Nehru Port.**

**EXPECTED QUESTION FOR UPSC CSE**

**Prelims MCQ**

Q. Recently the Prime Minister of India inaugurated the country's longest bridge over the sea called Atal Setu in which of the following cities?

(a) Kolkata                      (b) Mumbai  
(c) Chennai                      (d) Goa

(b) Answer

**NATIONAL SPORTS AND ADVENTURE AWARDS 2023**

**Why in News:** The President of India presented the **National Sports and Adventure Awards 2023** at a function in Rashtrapati Bhavan.

**About National Sports and Adventure Awards 2023**

- National Sports Awards are **given every year to recognize and reward excellence in sports.**

**National Sports and Adventure Awards 2023** 🏆

**Categories of National Sports Award**

 <p><b>Major Dhyan Chand Khel Ratna Award</b></p> <p>&gt; It is considered India's <b>highest sporting honour</b>. Khel Ratna was established in 1991-92. The award is named after the Indian hockey legend, Major Dhyan Chand.</p> <p>&gt; The award is given for outstanding performances in sports spanning over a period of four years and the Khel Ratna winners receive a medallion, certificate and a cash prize.</p>	 <p><b>Arjuna Award</b></p> <p>&gt; It is awarded for consistent good performance over a period of four years.</p> <p>&gt; The winners of the Arjuna Award receive a statuette of Arjuna, a certificate and a cash prize.</p>	 <p><b>Dronacharya Award</b></p> <p>&gt; It was instituted in 1985, is India's <b>highest sports honour for coaches.</b></p> <p>&gt; It is awarded to individuals for producing medal winners at prestigious international events. Awardees receive a bronze statue of Dronacharya, a certificate and a cash prize.</p>
 <p><b>Major Dhyan Chand Award</b></p> <p>&gt; This award represents <b>India's highest honour for lifetime achievements in sports.</b></p> <p>&gt; Presented for good performance and contributing towards the promotion of sports in an individual capacity since 2002, the winners get a Dhyan Chand statuette, a certificate and a cash prize.</p>	 <p><b>Maulana Abul Kalam Azad Trophy (MAKA):</b></p> <p>&gt; It was instituted in 1956-1957.</p> <p>&gt; It is given to an institution or university for top performance in inter-university tournaments over the last one year.</p>	 <p><b>Rashtriya Khel Protsahan Puraskar</b></p> <p>&gt; Awarded to organisations or corporates (both private and public) and individuals for playing a role in the area of sports promotion and development over the last three years.</p>

EXPECTED QUESTIONS FOR UPSC CSE

**Prelims MCQs**

Q1. Who among the following dignitaries of India presents the National Sports and Adventure Awards?

- (a) President of India      (b) Prime Minister of India  
 (c) Union Sports Minister   (d) Home Minister of India

Answer: (a)

Q2. Consider the following statements:

1. Major Dhyan Chand Khel Ratna Award is considered India's highest sports honour for coaches.
2. Arjuna Award is awarded for consistent good performance over a period of four years.
3. Dronacharya Award is India's highest sporting honour.
4. Major Dhyan Chand Khel Ratna Award represents India's highest honour for lifetime achievements in sports.

How many of the above statements are correct?

- (a) Only one                      (b) Only two  
 (c) Only three                  (d) All four

Answer: (b)

**KHELO INDIA YOUTH GAMES 2023**

**Why in News:** Prime Minister inaugurated the **Khelo India Youth Games** and expressed the government's commitment to **hosting the 2029 Youth Olympics and the 2036 Olympic Games** in the country.

**Key details**

- **Tamil Nadu is hosting the sixth edition** of the Khelo India Youth Games.
  - The Games will be **played across four cities** of Tamil Nadu, namely Chennai, Madurai, Trichy and Coimbatore from 19th to 31st January 2024.
- This edition of Khelo India Youth Games will **see participation from over 5600 athletes with over 275 competitive events across 26 sports disciplines and 1 demo sport.**
- **Silambam, a traditional sport of Tamil Nadu,** is being introduced as a demo sport for the first time in the history of Khelo India Youth Games and the **sport of Squash shall be organised for the first time in this edition of the Games.**
- **Mascot: 'Veera Mangai'.** Rani Velu Nachiyar, fondly known as Veera Mangai, was an Indian queen who waged a war against British colonial rule.
- **The logo: The figure of poet Thiruvalluvar.**

# ABOUT KHELO INDIA YOUTH GAMES

- ▶ **Objective:** To revive the sports culture in India at the grass-root level by building a strong framework for all sports played in our country and establish India as a great sporting nation.
- ▶ It is an annual event.
- ▶ The first edition was held in 2018 in Delhi.
- ▶ **Organised by:** Ministry of Youth Affairs & Sports.

# 12 VERTICALS OF KHELO INDIA



## YEN DENOMINATED GREEN BONDS

**Why in News:** REC Limited, a Maharatna under the Ministry of Power, has issued its inaugural Japanese Yen (JPY) 61.1 billion green bonds under the Global Medium Term Notes Programme.

### About the Yen Denominated Green Bonds

- It is eleventh venture by REC into the international bond market and inaugural Yen Bond issuance,
- It is also the first Yen Green Bonds issuance by any Indian PSU.
- It is the largest ever Euro-Yen issuance in South and South East Asia.
- It is the largest Yen-denominated issuance from India.
- Largest non-sovereign Yen-denominated issuance ever from South and South East Asia.

- The transaction witnessed interest from both Japanese and international accounts, with the number of orders from each at 50%, international allocation being one of the highest for any other Indian Yen deal.
- These bonds will be rated Baa3/BBB-/BBB+ (Moody's/ Fitch/JCR).
- Bonds will be listed exclusively on Global Securities Market of India International Exchange (India INX) and NSE IFSC in GIFT City, Gandhinagar, Gujarat.

### About REC Limited

- REC Limited (formerly Rural Electrification Corporation Limited) is a Central Public Sector Undertaking under the Ministry of Power involved in financing projects in the complete power sector value chain from generation to distribution.
- It is registered with the RBI as a Non-Banking Finance Company (NBFC), a Public Financial Institution (PFI) and an Infrastructure Financing Company (IFC).

### Introduction

The Government e-Marketplace, established in 2016, is a digital portal that streamlines the procurement process for Indian government departments, organisations, and PSUs. It offers a paperless, cashless, and contactless platform, covering vendor registration, item selection, receipt, and payment facilitation.

### Need for a Digital Solution for Public Procurement

Government procurement was previously opaque, time-consuming, and prone to corruption. A metamorphosis from the Directorate General of Supplies and Disposals to a digital e-commerce portal was needed to improve transparency, establish a competitive marketplace, and replace inefficient manual processes with a digital platform.

### Genesis of GeM

The Government e-Marketplace (GeM) aims to transform the public procurement ecosystem in the country by digitally enhancing processes, reducing waiting times, and ensuring timely payments. Its inclusive approach allows startups, MSMEs, women entrepreneurs, artisans, and craftsmen to participate in government tenders, promoting a more competitive and efficient business environment.

### Growth Trajectory

GeM, a digital transformation platform for Central and State Government departments and PSUs, has seen significant growth in terms of sellers registered, total procurement made, and cumulative order value transacted. The platform recorded a total Gross Merchandise Value (GMV) of ~INR 420 crore in its first year, and transactions grew from INR 38,000 crore in FY 20-21 to INR 1 lakh crore in FY 21-22. GeM has also expanded its portfolio to include a vast array of service offerings, with an unprecedented 168% growth in services from FY 21-22 to FY 22-23.

### GeM - Promoting Ease of Doing Business

- **GeM as a Facilitator:** The GeM portal enables a unified platform for buyers, sellers, and service providers to efficiently procure public goods and services.
- **Transformation through Cost Reduction and Efficiency:** GeM has revolutionised public procurement in India by reducing costs, enhancing efficiency, and promoting transparency through a user-friendly digital transaction platform.
- **Inclusive empowerment of sellers:** GeM provides a contactless, cashless, and paperless ecosystem for sellers from diverse backgrounds, including women entrepreneurs, artisans, self-help groups, cooperatives, MSEs, and startups.
- **Seamless registration process:** GeM's registration process is designed for ease, convenience, and minimal data entry, with online integration with the Aadhaar database serving as primary user identification proof.
- **Dynamic Goods and Services Platform:** GeM continually updates its platform by adding new categories of goods and services based on stakeholder feedback.
- **Diverse buying modes:** GeM offers procurement services through various modes such as direct purchase, L1 procurement, bidding, reverse auction, forward auction, single packet bidding, and push-button procurement.
- **Contract Management:** GeM automates contract generation based on technical parameters and buyer details, ensuring speed, efficiency, and minimal manual intervention, while also offering contract updates, version control, and audit trails.
- **Cashless payments and timely transactions:** The platform offers a cashless, online payment system with a payment gateway, enabling seamless integration with various payment systems and ensuring timely payments.
- **Information Visibility:** GeM promotes visibility for MSEs, local sellers, and startups by allowing sellers to indicate domestic content percentage in goods uploaded on the portal, aligning with the 'Make in India' initiative.
- **Trust-based Rating System:** GeM is a trust-based system that uses ratings to continuously evaluate performance, enabling informed decision-making between buyers and sellers.
- **Demand Forecasting:** GeM provides historical procurement data on the platform, based on buyer inputs, enabling sellers to plan better and ensure goods and services availability at lower rates.
- **Establishing Price Reasonability:** GeM offers buyers various tools to determine price reasonability, including comparing prices across e-commerce sites, discounts over MRP, last purchase price, and recent transaction prices for similar items.
- **Training:** GeM offers comprehensive training materials and support to ensure efficient use of its platform, including e-procurement certifications and training

modules for professionals specialised in procurement.

- **Communication and Support:** GeM offers a standardised communication channel for stakeholders, keeping them updated on changes, notices, and updates. It also includes an escalation matrix with well-defined SLAs for expert help.
- **Responsive Contact Centre:** GeM's contact centre, accessible in multiple languages, handles user queries via various channels, with the integrated chatbot Ask Gemmy directing concerns to the appropriate team.
- **Dispute resolution features:** GeM has introduced the Vivad se Vishwas-II (Contractual Dispute) functionality, a crucial tool for resolving disputes between buyers and sellers.
- **AI-ML-Based Decision Support:** GeM is implementing AI/ML-based advanced analytics to reduce anomalies and frauds, providing real-time feedback on transactions, enabling informed buyer decisions and preventing anomalous transactions.

- **GeM Sahay:** GeM has launched GeM Sahay, a mobile application that offers frictionless financing for MSMEs and startups, allowing all regulated lenders to participate and provide loans at the point of order acceptance.
- **Next-Gen GeM Platform:** GeM has partnered with Tata Consultancy Services to design and develop the Next-Gen GeM platform, utilising advanced technologies for user convenience and increased efficiency.

#### Roadmap for the Future

GeM, an e-procurement platform, is expanding its reach by integrating government buyers across all tiers. The platform is partnering with a leading IT firm to revamp and re-design its platform, leveraging advanced technologies to identify potential frauds, improve data analytics, and enhance supply chain management. The platform is also incorporating augmented and virtual reality for a more immersive procurement experience. GeM is also expanding its 'Green' products and services to help the country achieve its net zero carbon emissions commitment. With a buyer-seller ecosystem twice as large as Amazon India and Flipkart combined, GeM aims to enhance user experience, improve transparency, and promote inclusivity in the public procurement process.

# INTERIM BUDGET 2024-25

## Why an interim budget this year?

- In an election year, the current Government cannot present a full Budget as there may be a change in the executive after the polls. Hence, the need for an interim budget.
- As there is no constitutional provision for an interim budget, the Centre can choose to seek the Lower House's approval for the funds required for the transition period (April - July) till the new government presents a full Budget- via the votes on account provision.



**Vote on account:** Article 116 of the Indian Constitution allows the Lok Sabha to make any grant in advance for the estimated expenditure for part of any financial year by voting and passing such a legislation, i.e. vote on account.

INTERIM BUDGET	UNION BUDGET (Article 112)
It is a provisional arrangement to meet the expenditure of the government for a short period till the new government comes in and makes the new full budget.	A comprehensive financial plan to cover all the aspects of government spending, revenue generation, policy reforms and more for an entire fiscal year.
An Interim Budget allocates funds for essential government operations, ongoing schemes and urgent requirements.	The Union Budget takes into account all the revenues and expenditures, introduces new policies, schemes and reforms aimed at economic and social growth, as well as undergoes a strict examination and discussion in the Parliament.
Since it is not a budget for a full year, it refrains from policy reforms.	



# Viksit Bharat by 2047



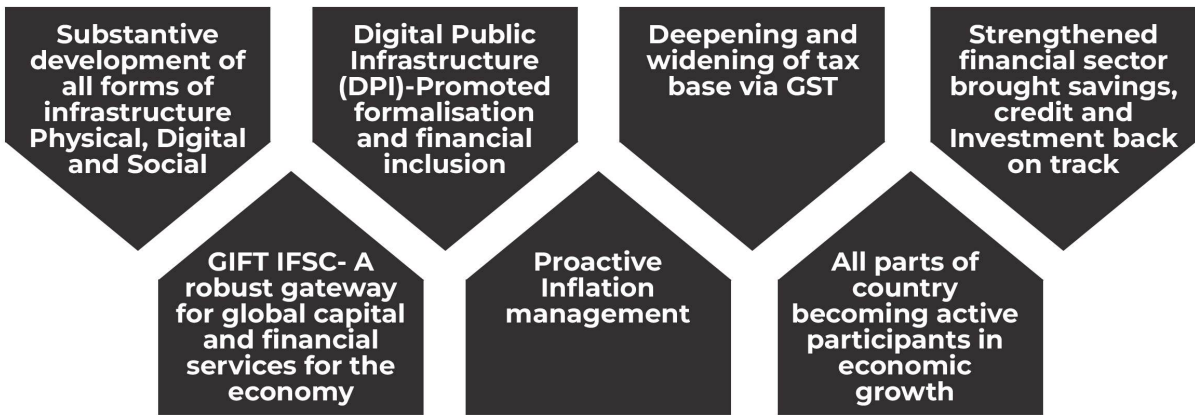
## Vision

Prosperous Bharat in harmony with nature, modern infrastructure and opportunities for all

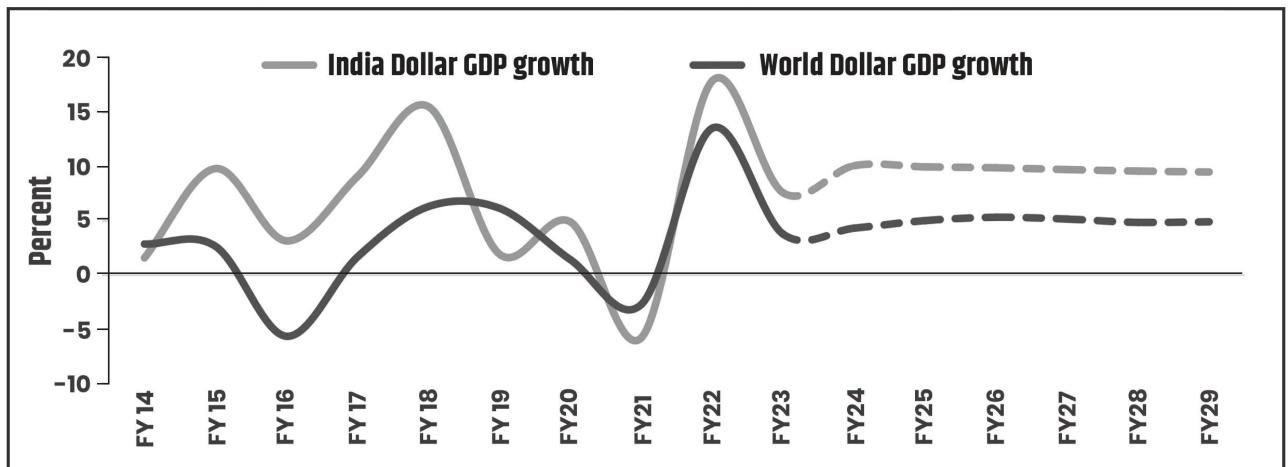
## Development Mantra



## People-Centric Inclusive Development



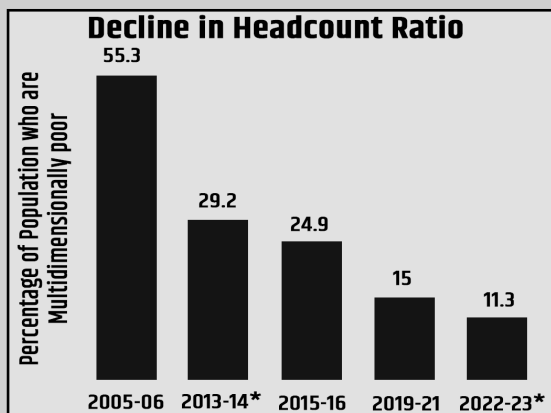
## India and World Dollar GDP growth



# Focus Areas

## Garib Kalyan, Desh ka Kalyan

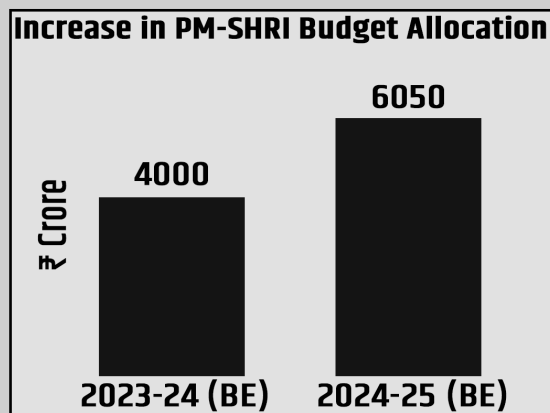
- DBT has led to savings of ₹2.7 lakh crore
- 25 crore people moved out of Multi-dimensional poverty
- Credit assistance to 78 lakh street vendors under PM-SVANidhi



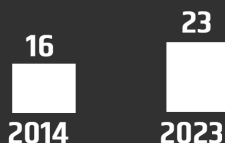
\*Projections

## Empowering the Youth

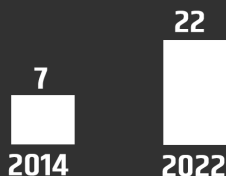
- 1.4 crore youth trained under Skill India Mission
- Fostering entrepreneurial aspirations of Youth-43 crore loans sanctioned under PM Mudra Yojana



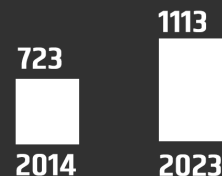
## IIT



## AIIMS

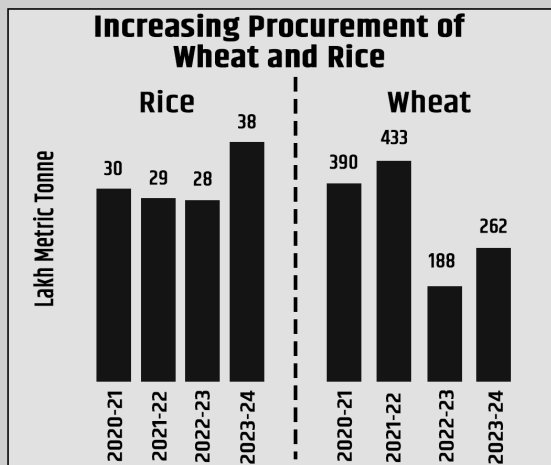


## Universities



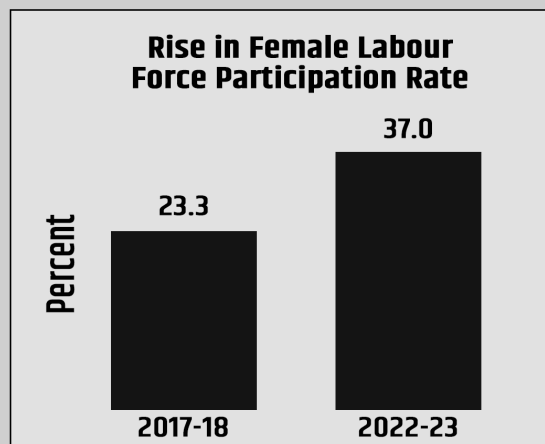
## Welfare of Farmers-Annadata

- Direct financial assistance to 11.8 crore farmers under PM-KISAN
- Crop Insurance to 4 crore farmers under PM Fasal Bima Yojana
- Integration 1,361 mandis under e- NAM, supporting trading volume of ₹ 3 lakh crore.



## Nari Shakti

- 30 crore Mudra Yojana loans disbursed to women entrepreneurs
- Increased female enrolment in higher education by 28 per cent in 10 years
- 43 per cent of female enrolment in STEM courses
- 1 crore women assisted by 83 lakh SHGs to become Lakshpati Didis



# Strategy for Amrit Kaal

## Sustainable Development

### Commitment to meet 'Net Zero' by 2070

- ▶ Viability gap funding for wind energy
- ▶ Setting up of coal gasification and liquefaction capacity
- ▶ Phased mandatory blending of CNG, PNG and compressed biogas
- ▶ Financial assistance for procurement of biomass aggregation machinery



**Rooftop solarization** - 1 crore households will be enabled to obtain up to 300 units of free electricity per month



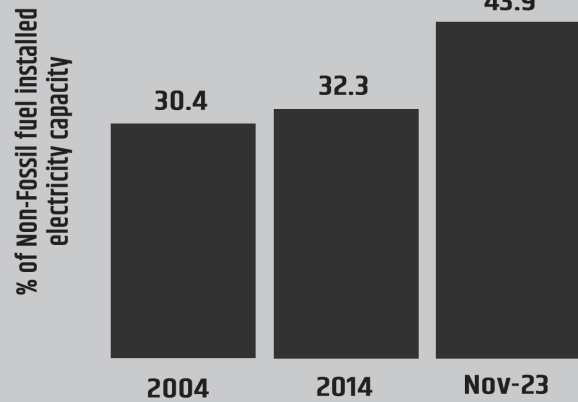
**Adoption of e-buses** for public transport network  
**Strengthening e-vehicle ecosystem** by supporting manufacturing and charging



**New scheme of biomanufacturing and bio-foundry** to be launched to support environment friendly alternatives



### Per cent increase in Non-Fossil Fuel installed electricity capacity



> 10 crore LPG connections released under PMUY  
36.9 crore LED bulbs, 72.2 lakh LED Tube lights, and 23.6 lakh Energy efficient fans distributed under UJALA  
1.3 crore LED Street Lights installed under SNLP

## Infrastructure and Investment

Implementation of 3 major **railway corridor** programmes under **PM Gati Shakti** to improve logistics efficiency and reduce cost



**Promotion of foreign investment** via bilateral investment treaties to be negotiated



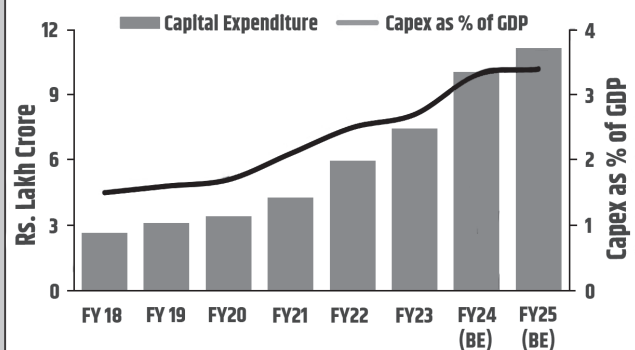
**Expansion of existing airports** and comprehensive **development of new airports** under **UDAN** scheme



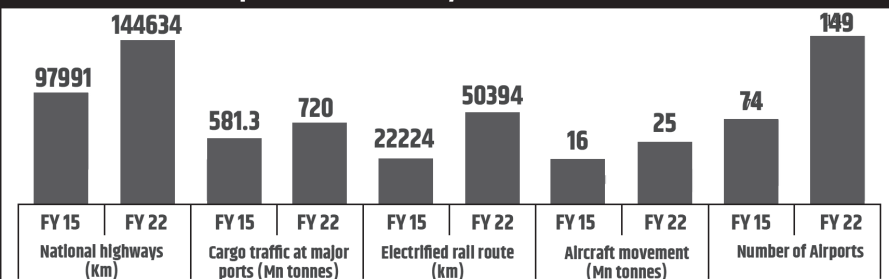
**Promotion of urban transformation** via Metro rail and NaMo Bharat



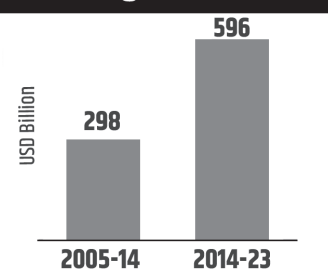
### Increase in Capital Expenditure



### Improvement in Physical Infrastructure



### Doubling of FDI Inflow



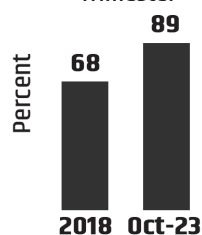
# Inclusive Development

## Aspirational District Programme

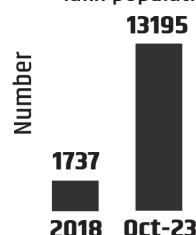
**Aspirational District Programme** to assist States in faster development, including employment generation.

### Inclusive Development in Aspirational Districts (112)

% of Women registered for Anti-Natal Care within First Trimester



Number of enrolments under Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) per lakh population



## Health



Encourage Cervical Cancer Vaccination for girls (9-14 years)



Saksham Anganwadi and Poshan 2.0 to be expedited for improved nutrition delivery, early childhood care and development



U-WIN platform for immunisation efforts of Mission Indradhanush to be rolled out

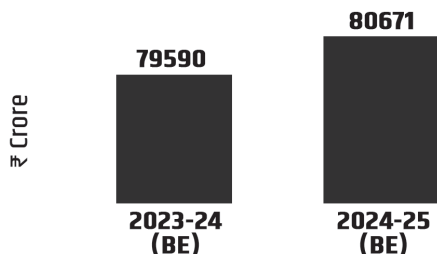


Health cover under Ayushman Bharat scheme to be extended to all ASHA, Angawadi workers and helpers

## Housing

- Pradhan Mantri Awas Yojana (Grameen) close to achieving target of 3 crore houses, additional 2 crore targeted for next 5 years
- Housing for Middle Class scheme to be launched to promote middle class to buy/built their own houses

### Increased allocation for PMAY



## Tourism



States will be encouraged to undertake development of iconic tourist centres to attract business and promote opportunities for local entrepreneurship



Long-term interest free loans to be provided to States to encourage development

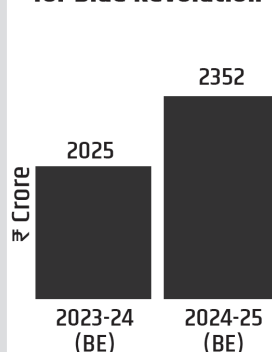


- G20 meetings in 60 places presented diversity of India to global audience
- Projects for port connectivity, tourism infrastructure, and amenities will be taken up in islands, including Lakshadweep

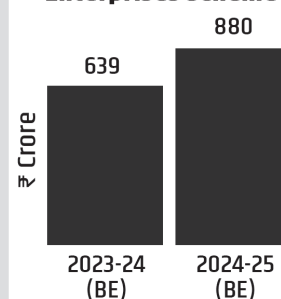
## Agriculture and Food Processing

- Government will promote private and public investment in post-harvest activities
- Application of Nano-DAP to be expanded in all agro-climatic zones
- Atmanirbhar Oilseeds Abhiyaan-Strategy to be formulated to achieve atmanirbharta for oilseeds
- Comprehensive programme for dairy development to be formulated
- Implementation of Pradhan Mantri Matsya Sampada Yojana to be stepped up to enhance aquaculture productivity, double exports and generate more employment opportunities
- 5 Integrated Aquaparks to be set up

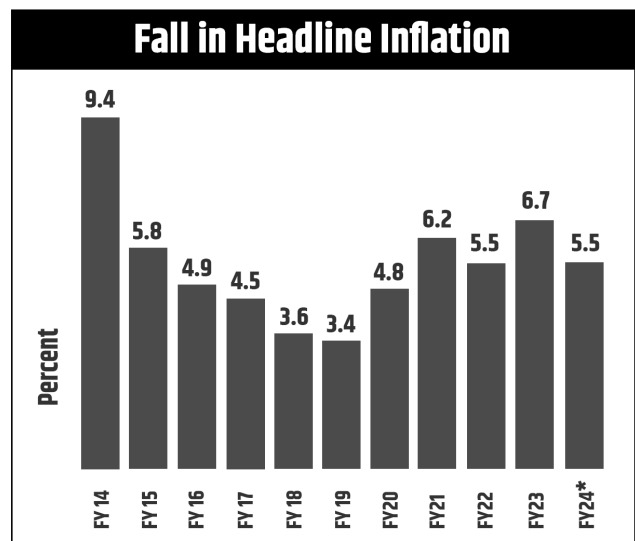
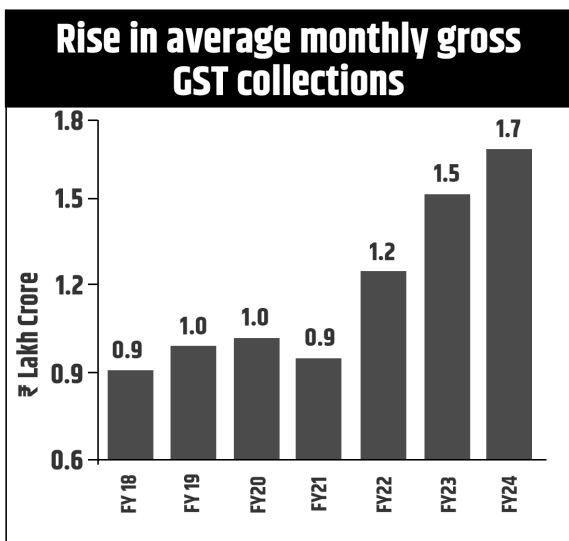
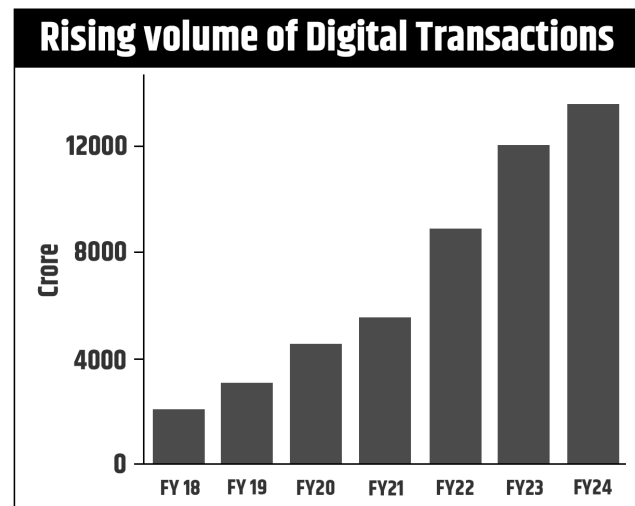
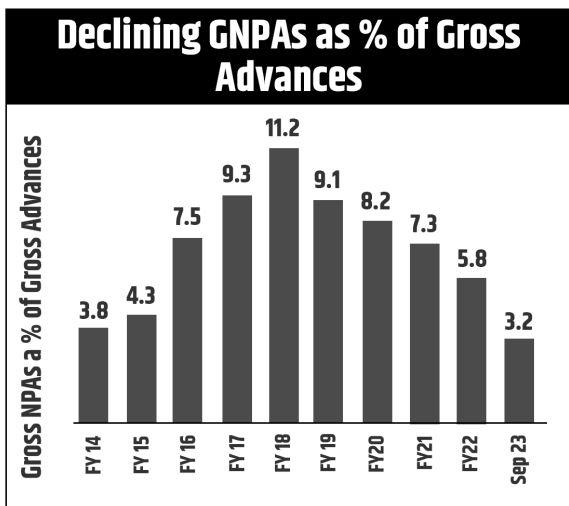
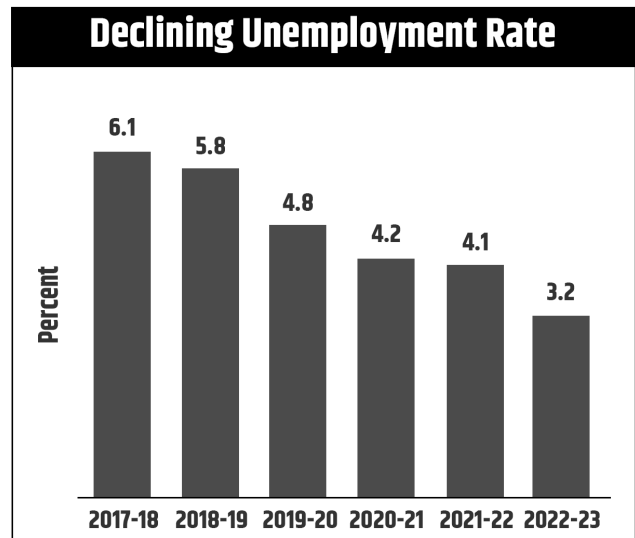
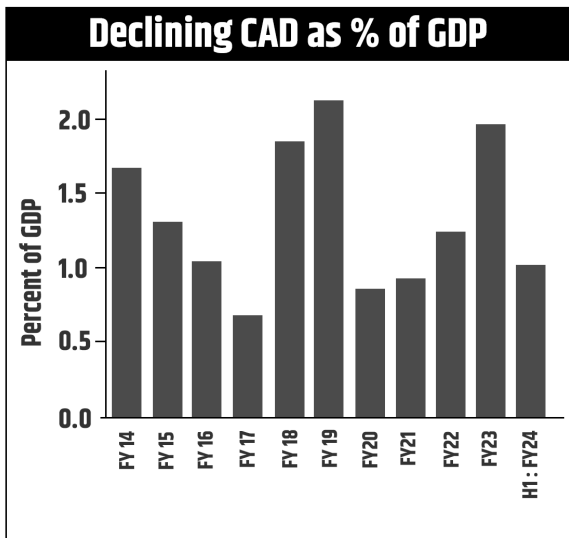
### Increased allocation for Blue Revolution



### Increased allocation for PM- Formalisation of Micro Food Processing Enterprises scheme



# Resilient Performance of the Indian Economy



# Achievements of Taxation Reforms

Direct Tax Collections more than trebled in last 10 years	<ul style="list-style-type: none"> <li>Positive sentiment about GST                     <ul style="list-style-type: none"> <li>94% industry leasers view transition to GST as largely positive</li> <li>80% of respondents feel GST has led to supply-chain optimisation (As per a survey conducted by a leading consulting firm)</li> </ul> </li> </ul>
Number of return filers swelled to 2.4 times	
<b>Faster refunds:</b> Reduction in average processing time of returns from 93 days (2013-14) to 10 days (2023-24)	<ul style="list-style-type: none"> <li>Decline in import release time since 2019 by:-                     <ul style="list-style-type: none"> <li>47 per cent at Inland Container Depots</li> <li>28 per cent at Air Cargo complexes</li> <li>27 per cent at Sea Ports</li> </ul> </li> </ul>
Average monthly Gross GST collections doubled to ₹1.66 lakh crore in FY24	
Increase in tax buoyancy of State revenue from 0.72 (2012-16) to 1.22 in the post-GST period (2017-23)	<b>Benefit to consumers:</b> Reduction in logistics cost and prices of most goods and services

## Tax Proposals

- Continuity in taxation:**
  - Certain tax benefits to Start-ups and investments made by sovereign wealth funds/pension funds, tax exemption of some IFSC units earlier expiring on 31.03.2024 extended up to 31.03.2025
- Withdrawal of outstanding direct tax demand:**
  - Up to 25,000 pertaining up to FY 10
  - Up to 10,000 for FY11-FY15
  - Expected to benefit approx. 1 crore taxpayers
- Retention of same tax rates:**
  - For direct and indirect taxes, including import duties
  - For Corporate Taxes-22% for existing domestic companies, 15% for certain new manufacturing companies
  - No tax liability for taxpayers with income up to 7 lakh under the new tax regime

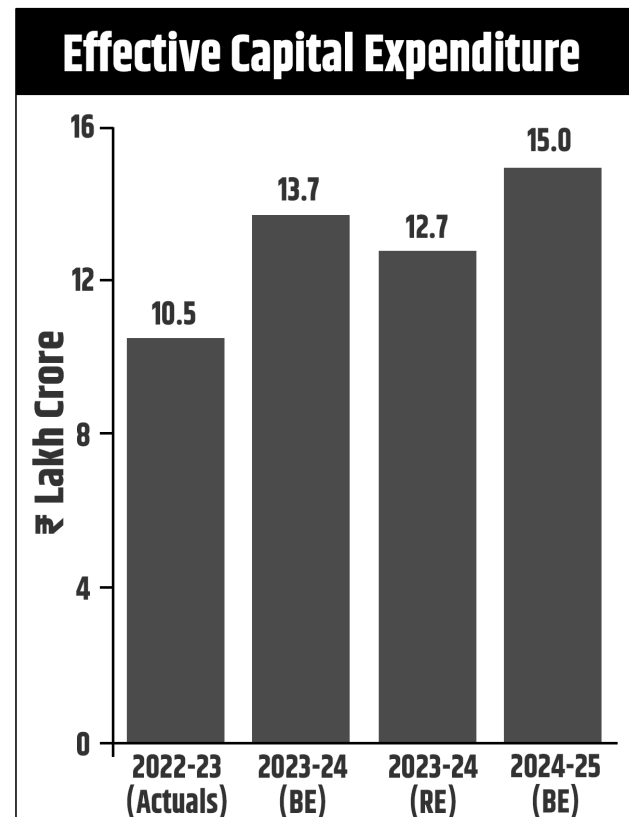
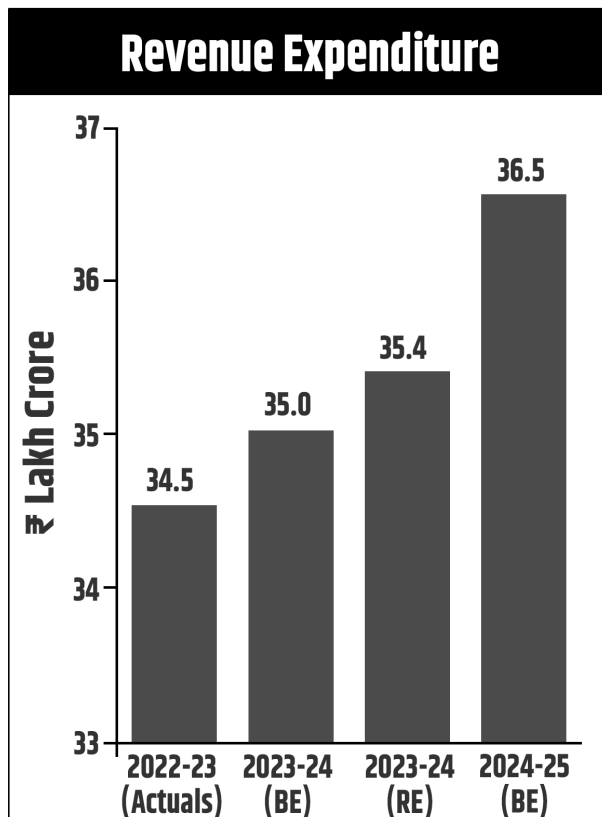
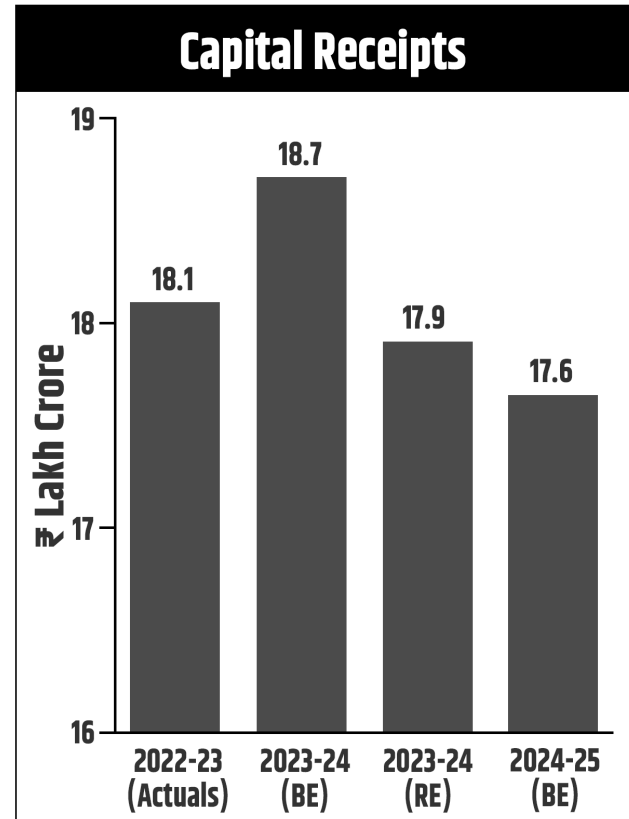
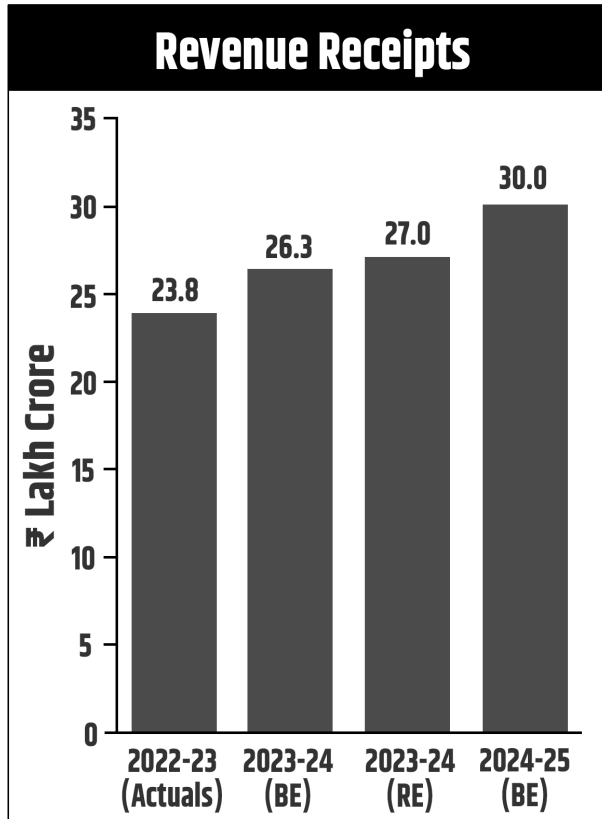
## Allocation for Specific Ministries

Ministries	in Crore
Ministry of Defence	6.2
Ministry of Road Transport and Highways	2.78
Ministry of Railways	2.55
Ministry of Consumer Affairs, Food & Public Distribution	2.13
Ministry of Home Affairs	2.03
Ministry of Rural Development	1.77
Ministry of Chemicals and Fertilizers	1.68
Ministry of Communications	1.37
Ministry of Agriculture and Farmer's Welfare	1.27

## Allocation to Major Schemes (in crore)

<b>Mahatma Gandhi National Rural Employment Guarantee Scheme</b> 2023-24(BE): 60,000 2024-25(BE): 86,000	<b>Ayushman Bharat-PMJAY</b> 2023-24(BE): 7,200 2024-25(BE): 7,500	<b>Production Linked Incentive</b> 2023-24(BE): 4,645 2024-25(BE): 6,200
<b>Modified Programme for Development of Semi-conductors and display manufacturing ecosystem</b> 2023-24(BE): 3,000 2024-25(BE): 6,903	<b>Solar Power (Grid)</b> 2023-24(BE): 4,970 2024-25(BE): 8,500	<b>National Green Hydrogen Mission</b> 2023-24(BE): 297 2024-25(BE): 600

# Receipts and Expenditure



## EXPECTED QUESTION FOR UPSC CSE PRELIMS 2024

Q1. The U-WIN platform rolled out across the country through Budget 2024-25 is associated with which of the following?

- (a) Managing Immunization
- (b) Managing Urban wetlands
- (c) Managing Women safety
- (d) Managing suicide among Farmers

Answer: a

Q2. The term 'Tax Buoyancy' is defined as

- (a) When a tax is buoyant, its revenue increases without increasing the tax rate.
- (b) When a tax is buoyant, its revenue decreases without increasing the tax rate.
- (c) When a tax is buoyant, its revenue increases without decreasing the tax rate.
- (d) When a tax is buoyant, its revenue decreases without decreasing the tax rate.

Answer: a

Q3. Consider the following statements with reference to the Saksham Anganwadi and Poshan 2.0:

- 1. It is aimed at combating malnutrition among pregnant women and lactating mothers.
- 2. These programmes were launched in the recent Interim Budget 2024-25.
- 3. The nodal ministry for this programme is the Ministry of Social Justice and Empowerment.

How many of the above statements are correct?

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

Answer: a

Q4. What is Nano-DAP, mentioned in the Interim Budget 2024-25?

- (a) A type of biomedicine made using nanotechnology that are able to attack cancer cells selectively without harming other healthy cells.
- (b) A type of fertilizer containing nitrogen and phosphorus.
- (c) A nanobiosensor that could be used to detect the presence of pathogens in food.
- (d) Smart fabrics made using nanotechnology.

Answer: b

Q5. Consider the following statements in context of the Interim Budget 2024-25:

- 1. India's current account deficit as a percent of GDP has decreased consistently since 2018.
- 2. The unemployment rate has consistently declined since 2018.
- 3. The volume of digital transactions has increased consistently since 2018.

How many of the above statements are correct?

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

Answer: b

Q6. Consider the following:

- 1. Increasing non-fossil fuel capacity by 500 GW by 2030.
- 2. More than 90 per cent of its energy requirements to come from renewable energy by 2030.
- 3. Reduction of the carbon intensity of the economy by 45 per cent by 2030, over 2005 levels.
- 4. Achieving the target of net zero emissions by 2070.

How many of the above are objectives of 'panchamrit goals', mentioned in the recent Interim Budget 2024-25?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

Answer: c

Q7. Which of the following ministries have received the highest allocation in the Interim Budget 2024-25?

- (a) Ministry of Railways
- (b) Ministry of Defence
- (c) Ministry of Road, Transport and Highways
- (d) Ministry of Home Affairs

Answer: b

Q8. Consider the following statements regarding the recent interim budget 2024-25:

- 1. There is no tax liability for taxpayers with income up to ₹ 7 lakh.

2. The threshold for presumptive taxation for retail businesses was increased from ₹ 2 crore to ₹ 3 crore.
3. The threshold for professionals eligible for presumptive taxation was increased from ₹ 50 lakh to ₹ 2 crore.
4. Corporate tax rate was decreased from 30 per cent to 22 per cent for existing domestic companies.

Which of the statements given above are correct?

- (a) Only one                      (b) Only two  
 (c) Only three                    (d) All four

Answer: c

Q9. Faceless Assessment and Appeal, mentioned in the Interim Budget 2024-25, is related to:

- (a) Speedy judicial proceedings  
 (b) Digital transactions  
 (c) Checking examination papers digitally  
 (d) Improvement of taxpayer services

Answer: d

Q10. Consider the following statements in context of the Interim Budget 2024-25:

1. Devolution to states from the centre's tax revenue is estimated to decrease 10.4% over the revised estimates of 2023-24.
2. Net tax revenue is estimated to be 12% higher over the revised estimate for 2023-24.
3. Non-tax revenue is estimated to decrease by 6.4% over the revised estimate of 2023-24.
4. Capital receipts are targeted to decrease by 41% over the revised estimates of 2023-24.

How many of the statements given above are correct?

- (a) Only one    (b) Only two  
 (c) Only three    (d) All four

Answer: a

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