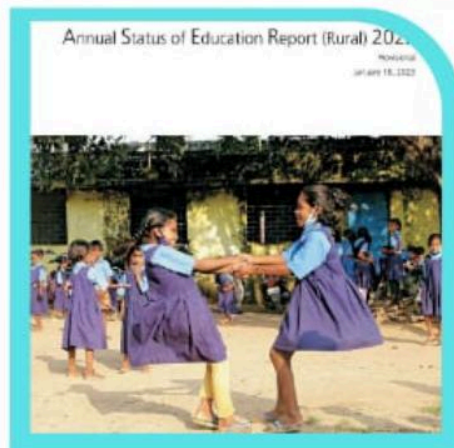


# CURRENT AFFAIRS MAGAZINE

## FEBRUARY 2023

- Annual Status of Educational Report (ASER)
- New Start Treaty
- India's green hydrogen Challenge
- Lithium: reserve, application and significance.
- The Economic survey that wasn't



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GS 1

1. Slow progress to creating a safe workplace for women

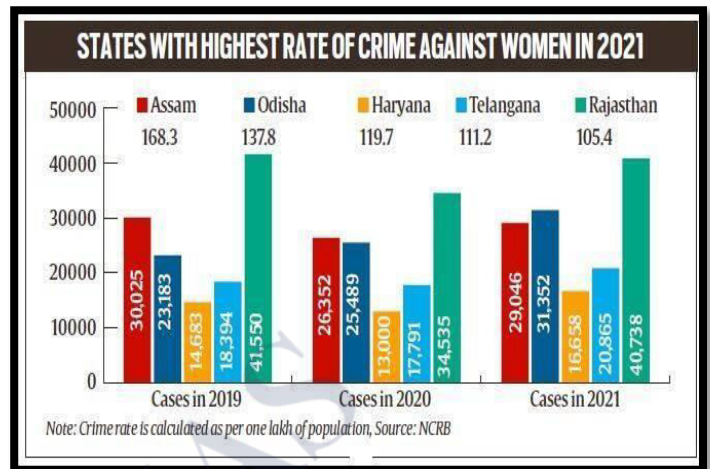
Sexual harassment is **unwelcome sexual behaviour** that's **offensive, humiliating or intimidating**. It can be **written, verbal or physical**, and can happen in person or online. The recent case of allegations of sexual harassment that some of **India's sportswomen (wrestling)** are said to have faced have shocked the India.

**What are the reasons behind sexual harassment of women at workplace?**

- Sexual harassment at the workplace, is both **direct and structural**. The enabling environment for reporting direct violence has shown a gradual improvement.
- **More men at the workplace** feel entitled to take undue advantage of the historical fact that **the society is still patriarchal** and women occupy a few of the higher positions.
- The **number of women in leadership positions is not enough** to generate confidence in the female subordinates. Women in lower positions feel reluctant to air their grievances.
- The Periodic Labour Force Survey for 2020-21 shows that the **participation of women in the total labour force was 25.1% in 2020-21**. It is still much less when compared to men.
- There is **absence of an enabling and safe working environment**. Most women do not complain of sexual harassment. The current redress mechanism is either non-existent or ineffective.
- Women are **more vulnerable to exploitation** by their employer due to the fear of job insecurity. Which makes them vulnerable to sexual favour by employers.
- Whenever allegations of sexual harassment are levelled against superior authorities, the **enquiry is not done properly**. Instead, an accused either resorts to multiple litigation to stall the due process or attempts to bring disrepute to the victim.

**Suggestions for creating safe working place for women:**

- Stringent legislations:** Every company and factory that employs women should implement a **zero-tolerance policy** towards sexual harassment.
- Greater awareness:** **Increased awareness** among **male employers** and employees so that they are able to support their female co-workers instead of threatening them for sexual favours. HR should ensure that the employees in the company are **well aware** of their **rights and duties**.
- Self-defence training:** Women should be imparted self-defence training so that they are **able to protect themselves from rape and harassment**.
- A safe and healthy job climate:** This will increase employee participation and productivity and reduce **employee absenteeism and turnover**
- Platform to express concerns:** Setting up an **Internal Complaints Committee (ICC)** to resolve sexual harassment issues in the organizations and implement policies relating to women's safety at the workplace.
- ICC is a **mandatory committee** that every employer is required to constitute within his organization. **Responsibilities of ICC:** Every company should have a safe and harassment-free workplace.
- Social media** is emerging as a trusted platform where women can **voice their opinion** and share their stories and experiences.
- Encourage vocational training among women:** Every woman should be provided **vocational training**, and an entrepreneurial skill must be imbibed in them so that they become independent, and it will **reduce gender discrimination**.
- Provide equipment for the safety of women:** The company or organization should have a provision to come up with equipment such as **pepper spray** that will ensure safety for women employees



### Way forward:

- In the long-run, it is essential to **address the deep-rooted structural and cultural violence** against women.
- There is a need to **develop the mindset of treating men and women as equals** at an early stage of character formation during childhood. Parents should respect each other and treat their girl and boy child on a par in all respects.

## 2. Hill or city, urban planning cannot be an afterthought

### Land subsidence:

- It is the sinking of the ground because of **underground material movement**.
- Subsidence can be caused by **gradual settling or sudden sinking of the Earth's surface**
- Land subsidence incidents in hilly urban India are becoming increasingly common. **About 12.6% of India's land area** is estimated to be prone to **landslides, especially in Sikkim, West Bengal**.
- According to the **National Institute of Disaster Management, Urban policy is making this worse**. Construction in such a landscape is often driven by building bye-laws that ignore local geologic and environmental factors.

### Examples:

- **Land use planning in India's Himalayan towns and the Western Ghats** is often ill-conceived. It adds to slope instability. As a result, landslide vulnerability has risen. It has been made worse by tunnelling construction that is weakening rock formations.
- **Flood risks**— Planned townships are approved, with a distinct lack of concerns for natural hazards. Townships are built on river floodplains.
- **In Delhi**, an estimated 9,350 households live in the Yamuna floodplains. The UN Intergovernmental Panel on Climate Change report of March 2022 has highlighted the risk Kolkata faces due to a rise in sea levels.
- The **combination of poor urban planning and climate change** will mean that many of India's cities could face devastating flooding.

### Way forward:

- **Acquiring credible data** is the first step toward enhancing urban resilience with regard to land subsidence. The overall landslide risk needs to be mapped at the granular level.
- The Geological Survey of India has conducted a national mapping exercise. Urban policymakers need to take this further, with additional detail and localisation.
- Areas with high landslide risk should **not be allowed to expand large infrastructure**. There is a need to reduce human interventions and adhere to carrying capacity.
- **Flood-proofing** India's cities will require multiple measures. Urban planners will have to step back from filling up water bodies, canals and drains.
- The focus should be on **enhancing sewerage and storm water drain** networks. Existing sewerage networks need to be reworked and expanded to enable wastewater drainage in low-lying urban geographies.
- Rivers that overflow need to be **desilted regularly** along with a push for coastal walls in areas at risk from sea rise.
- Greater spending on **flood-resilient architecture** like river embankments, flood shelters in coastal areas and flood warning systems are necessary.
- There is a need to **protect "blue infra" areas**. Examples are places that act as natural sponges for absorbing surface runoff, allowing groundwater to be recharged.

## Conclusion

- Urban master plans need to consider the impact of climate change and extreme weather;
- Urban authorities in India should assess and update disaster risk and preparedness planning.
- Early warning systems will also be critical.
- Each city needs to have a disaster management framework in place, with large arterial roads that allow people and goods to move freely.

## GS 2

### 1. Sealed Cover Jurisprudence

The Supreme Court and occasionally lesser courts use the practice of **requesting or accepting information** from government organisations in sealed envelopes that are only accessible by judges.

- If the **Chief Justice or a court decides** that the information should be kept confidential or under seal, no party will be permitted access to its contents.
- It is often only employed in one of two circumstances: **disclosing private or secret information or ongoing investigations** that are part of the police diary.
- The fundamental principle in both of these situations is identical: the court procedure must **not endanger the inquiry or harm a party** by disclosing facts.
- The theory of sealed cover is not specifically defined by law. Still, the Supreme Court has the authority to apply it due to **Section 123 of the Indian Evidence Act of 1872 and Rule 7 of Order XIII of the Supreme Court Rules**

**Rule 7 of Order XIII of the Supreme Court Rules:**According to the aforementioned rule, no party shall be permitted access to the contents of any information if the Chief Justice or court instructs that it be kept under sealed cover or deems it to be confidential.

Exceptions include situations in which the Chief Justice personally directs that the opposing party be granted access.

Additionally, it states that material may be kept private if the public is not thought to benefit from its disclosure.

**Section 123 of the Indian Evidence Act of 1872:**

This act protects official, unpublished papers about state business and prohibits public officials from being forced to reveal them.


Additional situations in which information may be sought in confidence or secrecy include those in which its disclosure may jeopardise an ongoing investigation, such as when it pertains to material included in a police case diary.

### Are there any judgments dealing with Sealed Cover Jurisprudence?

Yes, there are. Following are some of the judgements made by the Supreme court and various high courts about sealed cover jurisprudence.

- **In P Gopalakrishnan V. The State of Kerala, 2019**, the Supreme Court had said that disclosure of documents to the accused is constitutionally mandated, even if the investigation is ongoing.

- In the **INX Media case in 2019**, the **Supreme Court** criticised the **Delhi High Court** for basing its decision to deny bail on documents submitted by the Enforcement Directorate (ED) in a sealed cover.
- In 2022, in a case involving the Bihar government, the Bench headed by **Justice Ramana** made it clear that it wanted all arguments to be presented in open court

Arguments in favor of Sealed Cover Jurisprudence	Arguments Against Sealed Cover Jurisprudence
<p>The <b>authority of our Supreme Court</b> has been expanded to include the capability of receiving case data in sealed envelopes.</p> <p>This is done in <b>extremely sensitive situations</b> like defence deals or cases involving policies that would have a big influence on the economy of the nation.</p> <p>For reasons of <b>national security</b>, sealed envelopes take on a key role in these circumstances and must always be used.</p> <p><b>Even in private cases</b>, courts have in-camera procedures. This is so that incidents concerning people's private life are not permitted in court records. The sealed cover doctrine is sometimes required because of this.</p> 	<p><b>Against the principle of an open court:</b> The sealed cover orders fundamentally go against the cardinal principle of an open court and militate against the Supreme Court's function of public reasoning.</p> <p><b>Against principles of natural justice:</b> They violate the principles of natural justice as well, preventing parties from having a full appreciation of the facts of the case.</p> <p><b>Against the Right to Know:</b> The doctrine of sealed cover goes against the citizens' "right to know". It excludes the public from crucial issues that impact their lives directly or indirectly.</p> <p><b>Reasoning not given by Supreme Court:</b> The court orders provide no justifications for using sealed cover practice.</p> <p><b>It manipulates the final decision:</b> It vitiates the decision-making process and affects the outcome. Sealed covers have been allowed in cases where facts presented by the state needed to be debated and examined to settle the question of law.</p> <p><b>Violation of SC judgment:</b> It is argued that not providing access to such documents to the accused parties obstructs their passage to a fair trial and adjudication. In the 2019 judgment in the case of P Gopalakrishnan V. The State of Kerala, the Supreme Court said that disclosure of documents to the accused is constitutionally mandated.</p>

### Way Ahead

- Tribunals must make sure that **opposing parties are given a fair chance to state** their case and refute any supporting data or arguments.
- The constitutional values of **due process, a fair trial, and open justice** must be balanced with the practice of sealed cover jurisprudence, which also needs to be justified in light of the particulars of the case.
- In matters involving **national security**, the Supreme Court has recommended an alternative to habitually filing documents in sealed covers.

- The judicial review procedure is important because it holds the executive responsible.

## 2. Annual Status of Education Report (ASER) 2022

The **first ASER was conducted in 2005** and repeated annually for ten years.

ASER is a **household-based** rather than school-based survey.

Information on schooling status is collected for all children in the **age group 3-16 living in sampled households.**

Children in the age group 5-16 are tested in **basic reading and basic arithmetic.**

ASER tools and procedures are designed by **ASER Centre, the research and assessment arm of Pratham**, which is one of the **largest non-governmental organizations** in the country created to improve the quality of education in India.

### Findings - Enrolment and attendance

**Overall enrolment:** The enrolment rate for the 6 to 14 age group has been above 95% for the past 15 years. Despite school closures during the pandemic, overall enrolment figures have increased from 97.2% in 2018 to 98.4% in 2022.

**Government school enrolment:** The proportion of children (aged 6 to 14) enrolled in government schools increased sharply from 65.6% in 2018 to 72.9% in 2022.

The proportion of girls who are not currently enrolled: In 2022, the all-India figure for **11-14-year-old girls not enrolled in school stands at 2%**. This figure is around 4% only in Uttar Pradesh and is lower in all other states.

The proportion of **15-16-year-old girls not enrolled has continued to drop, standing at 7.9%** in 2022. Only 3 states have more than 10% of girls in this age group out of school: Madhya Pradesh (17%), Uttar Pradesh (15%), and Chhattisgarh (11.2%).

Enrolment in the pre-primary age group: Across rural India, the proportion of 3-year-olds enrolled in some form of early childhood education stands **at 78.3% in 2022**, an increase of 7.1 percentage points over 2018 levels.

### Findings- Learning levels: Foundational skills in reading and arithmetic

- Nationally, children's **basic reading ability has dropped to pre-2012 levels**, reversing the slow improvement achieved in the intervening years. Drops are visible in both government and private schools in most states, and for both boys and girls.
- Nationally, **children's basic arithmetic levels have declined** over 2018 levels for most grades.
- Nationally, children's **ability to read simple English sentences has stayed more or less** at the 2016 level.

### Findings - School observations

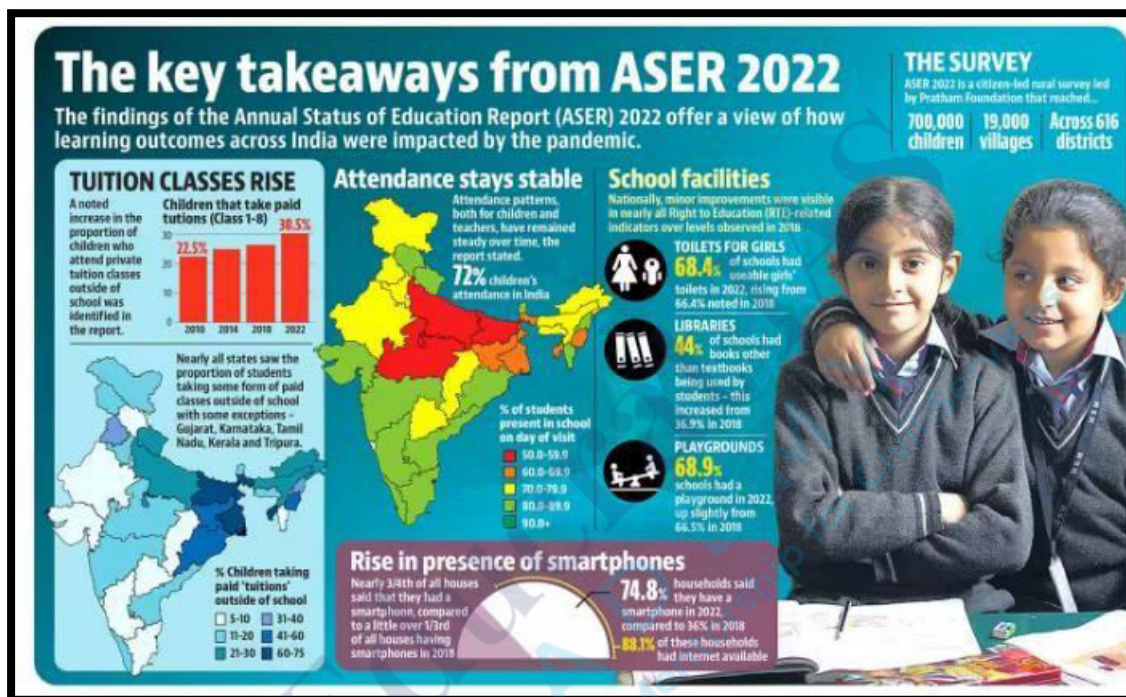
- The proportion of government schools with **less than 60 students enrolled has increased** every year over the last decade.
- The states with the highest proportion of small schools in 2022 include **Himachal Pradesh (81.4%) and Uttarakhand (74%)**.

### Teacher and student attendance

- At the All-India level, **no major change is seen in students' and teachers' attendance**. Average teacher attendance increased slightly, from **85.4% in 2018 to 87.1% in 2022**. Average student attendance continues to hover at around 72% for the past several years.

### School facilities

- The fraction of schools with **useable girls' toilets** increased from **66.4% in 2018 to 68.4% in 2022**. The proportion of schools with **drinking water available** increased from **74.8% to 76%**. Most sports-related indicators also remain close to the levels observed in 2018. In 2022, 68.9% of schools have a playground, up slightly from 66.5% in 2018.



### 3. Need for Menstrual Leave in India

Recently, Kerala government announced that the state government will grant menstrual leave for female students in all state universities under the Department of Higher Education. Menstrual leave refers to a specific form of time off for those who experience period pains.

- It recommends that workers be given leave from work while menstruating, just as they would for any illness.
- These leaves are not covered and are taken in addition to the usual sick leaves provided to all employees.
- In India, there is no legislative provision for menstrual leave.

#### Examples from India:

- Zomato in 2020**, announced a **10-day paid period of leave per year**, and Swiggy and Byjus have also followed suit.
- Among State governments, **Bihar and Kerala** are the only ones to introduce menstrual leave to women.
- Soviet Russia** - In the 1920s and 30s, Soviet Russia relieved menstruating women from paid labour to safeguard their reproductive health, thus originating the idea of formal menstrual leave policy.
- Japan** - In 1920s, labour unions in Japan popularised the concept that has stood for more than 70 years now.



Arguments in favour	Arguments against
<p><b>Biological process comes with physical pain:</b> Though menstruation is a biological process, it is accompanied by cramps, nausea, back and muscle pains, headaches, etc.</p> <p><b>Polycystic ovary syndrome (PCOS):</b> Additionally, these can take a debilitating form amongst menstruating people who suffer from polycystic ovary syndrome (PCOS) and endometriosis. In India, 20 per cent of menstruators have PCOS</p> <p><b>Acknowledges the reality:</b> For many menstruators, it is a biological process intertwined with medical symptoms. Mandatory period leave is an affirmative action policy that acknowledges this reality.</p> <p><b>Opportunity for women to speak up -</b> Menstrual leave could be an opportunity for women to speak up about their menstrual cycle and to receive treatment for health issues related to it.</p> <p><b>Humane working conditions -</b> It was not that women needed rest while menstruating, it was just the lack of humane working conditions that made labour movements push for menstrual leaves.</p>	<p><b>Fear of bias in hiring:</b> The major opposition to a menstrual leave policy is the fear of bias in hiring due to the financial costs to employers. Discriminatory hiring has been a cause of concern in many countries.</p> <p><b>Probable decline in women labour force participation:</b> It is often equated to the decline in the labour force participation of women following the introduction of mandatory paid maternity leave.</p> <p><b>Medicalising normal biological process:</b> Period leave is often seen as medicalising a normal biological process.</p> <p><b>Health complications -</b> In Maharashtra's Beed district, contractors in the sugarcane industry do not hire anyone who menstruates compelling more than 10,000 female sugarcane cutters to surgically remove their uteri to secure work.</p> <p><b>Human rights violation -</b> They are now experiencing various post-surgery health complications which is equated to the human rights violation.</p>

#### Way ahead

- **Mandatory self-care leaves as an alternative:** Employers should be made to introduce a **mandatory self-care leave as an alternative to period leaves** for those who cannot avail of the latter. Employees should be able to utilise their self-care leave as they deem fit. This will reduce burnout and increase productivity.
- **Self-care leave will also destigmatise menstruation:** The names menstrual leave and self-care leave will also **destigmatise menstruation and self-care** respectively. Further, employers should be made to implement a stringent **diversity, equity, and inclusion (DEI) framework**.
- **Safeguards menstruators in unorganized sector:** A formal menstrual leave policy in the organized sector can act as a catalyst in safeguarding menstruators in the unorganized sector too

#### 4. New START Treaty

Days before the **first anniversary of the beginning of the war in Ukraine**, President Vladimir Putin announced in an address to his nation that **Russia is suspending its participation in the New START**, the last remaining major military agreement with the United States.

In 1985, the two countries entered into arms control negotiations on three tracks.

- The first dealt with strategic weapons with ranges of over 5,500 km, leading to the **START agreement in 1991**.
  - It limited both sides to 1,600 strategic delivery vehicles and 6,000 warheads.
  - A second track dealt with intermediate-range missiles and this led to the **INF Treaty in 1987**.
- A third track, **Nuclear, and Space Talks** was intended to address Soviet concerns regarding the U.S.'s Strategic Defence Initiative (SDI) but this did not yield any outcome.

The name **START** comes from the original "**Strategic Arms Reduction Treaty**", known as START-I, which was signed between the **US and the erstwhile USSR in 1991**, and came into force in 1994.

**START-I, which capped the numbers of nuclear warheads and intercontinental ballistic missiles (ICBMs) that each side could deploy at 6,000 and 1,600 respectively, lapsed in 2009, and was replaced first by the Strategic Offensive Reductions Treaty (SORT, also known as the Treaty of Moscow), and then by the New START treaty.**

The New START, officially, the "Treaty between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms", entered into force on **February 5, 2011**, and placed new verifiable limits on intercontinental-range nuclear weapons.

The two countries had to meet the treaty's central limits on strategic offensive arms by February 5, 2018, and to then stay within those limits for the period the treaty remained in force.

The US and Russia subsequently agreed to **extend the treaty through February 4, 2026**.

#### **Structure:**

- It restricts both countries to a maximum of **1,550 deployed strategic nuclear warheads** each and limits **launchers and heavy bombers to 800**.
- It also outlines **mutual inspections** and regular data exchanges on warheads and delivery mechanisms.
- It includes an agreement to notify each other about the status of some ballistic missiles.

#### **Compliance:**

- The treaty provides for **18 on-site inspections per year** for US and Russian inspection teams.
- **Type One inspections** focus on sites with deployed and non-deployed strategic systems (up to 10 per year), and **Type Two inspections** focus on sites with only non-deployed strategic systems (up to 8 per year).
- Since the New START Treaty's entry into force, as of February 1, 2023, the two parties have conducted 328 on-site inspections,

#### **Status of compliance:**

- US said that Russia was not complying with the New START, only remaining nuclear arms control treaty between the two countries, jeopardizing a source of stability in their relationship.
- **Russia's refusal to facilitate inspection activities** prevents the United States from exercising important rights under the treaty.
- **Russia has also failed to comply with the New START treaty obligation** to convene a session of the bilateral consultative commission in accordance with the treaty-mandated timeline.

#### **Various Treaties signed Between USA & Russia**

**SALT-1 (Strategic Arms Limitation Talks).** It began in 1969, with both sides agreeing not to build new Intercontinental Ballistic Missile (ICBM) silos, not to increase the size of existing ICBM silos considerably, and to limit the number of Submarine-Launched Ballistic Missile (SLBM) launch tubes and SLBM-carrying submarines.

**START-1 (Strategic Arms Reduction Treaty).** The agreement, signed in 1991, demanded the destruction of excess delivery trucks, which was validated by an extensive verification system that included on-site inspections, frequent information exchange (including telemetry), and the deployment of national technical means (i.e., satellites).  
Agreed in 1993, the Strategic Arms Reduction Treaty-2 called for lowering deployed strategic arsenals to 3,000-3,500 warheads and prohibiting the deployment of destabilizing multiple-warhead land-based missiles.

**Strategic Offensive Reductions Treaty (SORT):** Signed in 2004, the Strategic Offensive Reductions Treaty (SORT) lowered the United States and Russia's strategic arsenals to 1,700-2,200 warheads each.

**Strategic Arms Reduction Treaty (START):** A legally binding, verifiable agreement signed in 2010 that restricts each side to 1,550 strategic nuclear warheads deployed on 700 strategic delivery systems (ICBMs, SLBMs, and heavy bombers) and 800 deployed and nondeployed launchers.

- The INF Treaty was hailed as a **great disarmament pact** even though no nuclear warheads were dismantled.
- As it is a **bilateral agreement**, it did not restrict other countries.
- By **1991, the INF was implemented**. USSR destroyed 1,846 and the US destroyed 846 Pershing and cruise missiles.
- Associated production facilities were also closed down.
- INF Treaty was the first pact to include intensive verification measures, including on-site inspections

## 5. Russia-Ukraine crisis: A recap

Ukraine's President Volodymyr Zelensky recently said he had declared **February 16**, which U.S. officials had said could be the date of a Russian attack, as a **day of "national unity"**.  
However, Russia has clarified that it has no plans to invade Ukraine.

### What is the Current Status of the War?

- The West has recently announced the **supply of more advanced weapons to Ukraine**, deepening its involvement in the conflict.
- In response, Russian President Vladimir Putin has already **reinforced Russian positions** along the 1,000-km long frontline in Ukraine.
- Risks of a direct confrontation between Russia and the North Atlantic Treaty Organisation (NATO), both nuclear powers, are also on the rise as the war is extended.
- Russia wanted to install a Moscow friendly regime and to take the whole of Ukraine's east and south, stretching from Kharkiv in the northeast through the **Donbas in the east (which comprises Luhansk and Donetsk) to Odesa, the Black Sea port city in the southwest**, turning the country into a land-locked rump. Russia has failed to meet any of these objectives.
- Nevertheless, Russia has taken substantial portions of Ukrainian territories, including Mariupol. **Russia's territorial gains in Ukraine peaked in March 2022**, when it controlled some 22% of pre-2014 Ukraine.
- **Ukraine recaptured some land in Kharkiv and Kherson**. But still, Russia controls some 17% of Ukraine.

- Focused fighting has been going on in some flashpoints along the frontline including **Bakhmut, Donetsk and Zaporizhzhia**



#### Evaluation of Western Response:

- **Sanctions on Russia**, one of the top global producers of oil and gas, hit the global economy hard, worsening an inflationary crisis across the West, particularly in Europe.
- **Providing military help to Ukraine.**
- Russia also took a hit, but it found **alternative markets for its energy exports** in Asia, redrawing the global energy export landscape. In 2022, despite sanctions, Russia raised its oil output by 2% and boosted oil export earnings by 20%.

#### Geopolitical changes:

- **Increased focus on Security and Defence:** The war has **re-energized the Europe-US security alliance**. NATO has opened its door to the proposed inclusion of Sweden and Finland, that will, once in (Turkey's approval is awaited), form the new military frontiers of the alliance against Russia.
- **Trust Deficit:** The trust deficit between Russia and the West is at an all-time high. The US-led alliance is pouring weapons into Ukraine.
- **China Factor: Moscow formalized its friendship with China in 2022 as "limitless".** But China also does not want to jeopardize its Europe ties. China, however, has not contributed with weapons to Russia and also expressed its reservation against nuclear war.

#### Way Forward

- There is an urgent need for the parties of the war to return to negotiation table as the **escalation of hostilities and violence is in no one's interest**.
- International principles and jurisprudence make it clear that parties to a conflict should ensure civilians and civilian infrastructure are not targeted, and the global order is based **on international law, the UN Charter and respect for territorial integrity and sovereignty of all states**. These principles must be upheld without any exception.

## 6. Applying Active Non-Alignment for Ukraine peace

The recently-held Munich security conference, a major concern of the members of the North Atlantic Treaty Organization (NATO) was the reluctance of the Global South to align itself with **the G-7 on the war in Ukraine**

### **Active Non-Alignment (ANA):**

- It originated in **2019** and was developed in **2020** in response to the U.S.-China struggle for primacy, in which Latin America was caught in the middle.
- **It was a bit of a manifesto calling** for Latin American countries not to give in to pressures from either Washington or Beijing and to stick to their own interests.
- **It took a page from the tradition** of the Non-Aligned Movement (NAM) and **Adapted it to the imperatives of the new century**, impelled by the urgency of the Latin American crisis.
- **It turns out, more than a future-oriented proposal**, it is an approach that is already being applied in practice.
- **ANA has been referred to as** “ the region’s most significant foreign policy development since the end of the Cold War”.
- **Foreign Policy Magazine** called it “**the year of Non-Alignment**”.
- **ANA** arose in the context of the U.S.-China spat.

### **Stand on war:**

- The vast majority of countries across the world **condemn the Russian invasion** and wanted war to come to an end (as shown in the United Nations vote on the subject in February 2023),
- Few countries in Asia, Africa and Latin America support the **political and economic sanctions on Russia** imposed by the G-7.
- The developing world, and especially Africa, Asia and the Middle East/West Asia, has been the site of many wars, including those of the **proxy kind, in the course of the past 70 years**.
- India’s External Affairs Minister: “Europe has to grow out of its mindset that Europe’s problems are the world’s problems, but the world’s problems are not Europe’s.”

### **India’s difficult balancing act:**

- India plays a key role in it, having taken a clear stand of non-alignment on the war, despite its closer ties with the U.S.
- **As host and chair of this year’s G-20:** India is managing the difficult balancing act of keeping this important informal group of developed and developing nations
- **Seventeen African countries abstained in the UNGA** vote to condemn the Russian invasion of Ukraine.
- **South Africa:** It scheduled a naval exercise with the Russian Navy and China off the country’s Indian Ocean coast.

### **Way Forward**

- The **BRICS group** embodies the New South that has emerged in the new century.
- It has the potential to play a critical role in furthering some sort of a mediated solution to the Ukraine conflict.
- **India is in a privileged position to act as a peace broker.**  
Look for a mediated outcome, a peace agreement that would necessarily entail a compromise solution acceptable to both parties.

## 7. Office of Profit

**The Governor of Jharkhand** was recently appointed as the **Governor of Maharashtra**.

The Governor left the Raj Bhavan in Ranchi without disclosing the Election Commission’s opinion on whether the current Chief Minister of Jharkhand should be **disqualified for allegedly allocating a mining lease to himself when he was the mining and forest minister of Jharkhand**.

The EC's communication to the Governor is confidential, but information from unofficial sources widely believed that the EC had recommended the disqualification of the Chief Minister of Jharkhand

- However if the Governor had acted upon the EC recommendation, it would have led to immediate political instability in Jharkhand.
- It is now up to the new Governor of Jharkhand to act on the EC's opinion in this matter.

#### **Under which law the matter was referred to the Election Commission?**

- **Articles 191 and 192 of the Indian Constitution** deal with “Disqualifications for membership” of a state Legislative Assembly or Council, and “Decision on questions as to disqualifications of members” respectively.
- **Article 191(1)** expresses that “a person shall be disqualified for being chosen as, and for being, a member” of a state House “if he holds any office of profit under the Government of India or the Government of any State..., other than an office declared by the Legislature...not to disqualify its holder”.
- Article 192(1) says that if “any question arises as to whether a member...has become subject to...disqualification..., the question shall be referred for the decision of the Governor and his decision shall be final”.
- **Under Article 192(2)**, “Before giving any decision on any such question, the Governor shall obtain the opinion of the Election Commission and shall act according to such opinion.”

#### **Is the Governor bound to act on the EC's recommendation?**

- Article 192(2) of the Indian Constitution says that the **Governor “shall act”** according to the EC's opinion.
- However, **it does not lay down a time frame** for the Governor to act.

#### **Office of Profit**

- Members of Parliament (MPs) and Members of the Legislative Assembly (MLA), as members of the legislature, hold the government accountable for its work.
- Under the **Representation of People Act**, holding an **office of profit is grounds for disqualification**.
- The rationality behind the disqualification under the office of profit law is that if legislators hold an ‘office of profit’ under the government, they might influence the government, and **may not discharge their constitutional duty**.
- Disqualification under “office of profit” ensures that there should be no conflict between the duties and interests of an elected member.
- Disqualification based on the office of profit **upholds the principle of separation of power between the legislature and the executive**; an essential feature of the Indian Constitution.
- **Under Article 102 (1) and Article 191 (1)** of the Indian Constitution, an MP or an MLA (or an MLC) is barred from holding any office of profit under the central or state government, but Indian Constitution or any law does not clearly define what constitutes an office of profit, the definition has evolved over the years with various court judgments.
- An office of profit is defined as a position that brings to **the officeholder some financial gain, advantage, or benefit**.

The **Supreme Court** ruled that several questions need to be considered in deciding the matter of office of profit:

- Whether the government is the appointing authority.
- Whether the government has the power to terminate the appointment.
- Whether the government determines the remuneration.
- What is the source of remuneration?
- The power that comes with the position.

#### **Way forward**

- In modern polity, the **concept of separation of power becomes too thin** because the government function becomes so wide that the government can't work in its limited power which is given to the government.
- We must bear in mind the objective of the disqualification under 'the office of profit' is to avoid conflict between the different branches of the state.  
The need of the hour is to enact a comprehensive national law to clearly define the 'office of profit'.

## 8. Missing Deputy Speaker in Parliament

Over three years after the present Lok Sabha first met, the position of **Deputy Speaker still remains vacant**.

### Constitutional Provisions:

- **Article 93** says that the **House of the People (Lok Sabha)** shall, as soon as may be, **choose two members to be Speaker and Deputy Speaker** so often as the offices become vacant. However, it does not provide a specific time frame.
- **Article 178** contains the corresponding position for **Speaker and Deputy Speaker** of the Legislative Assembly of a state.

### Provisions Regarding Deputy Speaker:

#### Election:

- In Lok Sabha, the election of Deputy Speaker is governed **by Rule 8 of The Rules of Procedure and Conduct of Business in Lok Sabha**.
- The Deputy Speaker is elected by the Lok Sabha from amongst its members right after the election of the Speaker. The date of election of the Deputy Speaker is fixed by the Speaker.
- **Time Frame:** The election of the Deputy Speaker usually takes place in the second session and is generally not delayed further in the absence of genuine and unavoidable constraints.

#### Issue of non-election

##### Lok Sabha:

- In the present Lok Sabha, the House has not elected a Deputy Speaker even after **three years** and seven months of its term are over.
- The non-election of the Deputy Speaker has now reached the Supreme Court, which has reportedly sent notice to the Union government.

##### State Assemblies:

- The Supreme Court on Monday issued notices to the Centre and five states — **Rajasthan, Uttarakhand, Madhya Pradesh, Uttar Pradesh, and Jharkhand** — over the failure to elect a Deputy Speaker.

##### Centre's position:

- The Treasury benches have maintained there is no **"immediate requirement"** for a Deputy Speaker as "bills are being passed and discussions are being held" as normal in the House.
- A Minister argued that "there is a panel of nine members — senior, experienced and selected from different parties — who can act as chairpersons to assist the Speaker to run the House".

##### Judiciary's intervention:

- Courts usually don't intervene in the procedural conduct of Parliament. **Article 122(1)** says:  
"The validity of any proceedings in Parliament shall not be called in question on the ground of any alleged irregularity of procedure."

- However, experts said that the courts do have jurisdiction to at least inquire into why there has been no election to the post of Deputy Speaker since the Constitution does envisage an election “as soon as may be”.

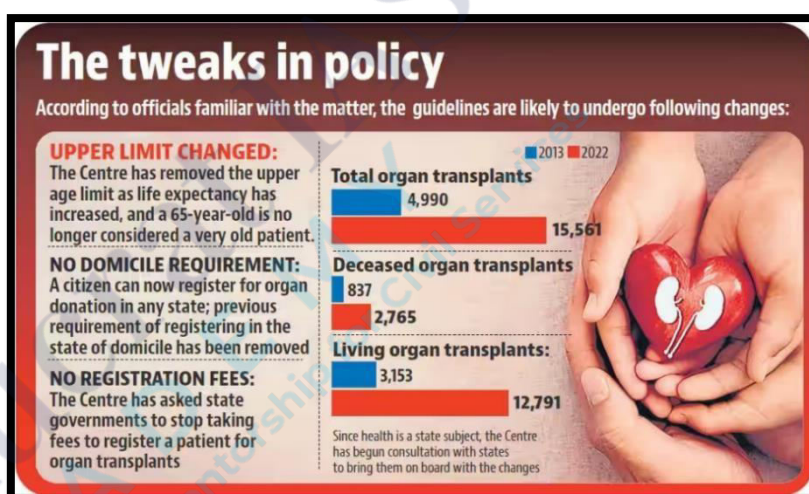
#### Need of Deputy Speaker:

- **Maintains Continuity:** Deputy Speaker maintains continuity of the office whenever speaker is absent or the office becomes vacant.
- **Represents The House:** If Speaker resigns, he/she tenders resignation to Deputy Speaker.
- If the post of Deputy Speaker is vacant the Secretary-General receives the letter of resignation and informs the House about it. The resignation is notified in the Gazette and the Bulletin, as per the Rules for Presiding Officers of Lok Sabha.

**Strengthens the Opposition:** Since 2011, convention has been to offer the position of deputy Speaker to Opposition party. Though Constitutionally, Deputy speaker can be from Opposition or Majority party.

### 9. Organ transplant rules In India: A Significant Step

The changes to the organ transplant rules announced by the Union health ministry last week, are small, but significant, steps towards giving a new lease of life to many people with failing organs. Despite of performing the third-the greatest number of transplants in the world, only about **0.01 percent of Indians donate their organs after death**, according to the World Health Organization.



#### What are the changes introduced?

CHANGES:	PREVIOUSLY
<p><b>No age ceiling for organ receivers:</b> With the new changes, patients who are <b>65 years and older can now register for receiving organs from a deceased donor</b>. Now an individual of any age can register for organ transplant.</p>	<p>Previously, the <b>upper age limit for registering patients requiring organs from deceased donors was 65 years</b>, but this ceiling has now been removed.</p>
<p><b>No domicile criteria for receivers:</b> Eliminate the domicile criterion for registering to receive organs, so that patients in need can register in any state.</p>	<p>Currently, certain states restrict registration for deceased organ donors to only those who are domiciled in the state or give them preference. Organs harvested in one state are first shared with other hospitals within the same state, then in the region and then share nationally on the occasion that no match was found.</p>
<p><b>No registration fees:</b> The ministry has also requested that states <b>not impose any fees</b> on patients seeking registration for organ transplantation, as it violates <b>the 2014</b></p>	<p>States such as <b>Maharashtra, Kerala, Gujarat, and Telangana</b> charge between Rs</p>



<b>Transplantation of Human Organs and Tissues Rules.</b>	5,000 and Rs 10,000 to register patients who need an organ replacement.
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#### **Purpose of New Guidelines:**

- The Centre is planning to make changes in the rules **of Transplantation of Human Organs (Amendment) Act 2011** towards creating a national policy for transplantation.
- Currently, **different states have different rules**; the Union government is considering changes to the rules so that there is a standard criterion followed in all states across the country.
- However, **Health being a state subject**, the rules formed by the central government will not be binding on the states.
- **India conducts the third highest number of transplants in the world every year.** Yet barely four per cent of the patients who require a liver, heart or kidney transplant manage to get one.

#### **Challenges to Organ Donation in India**

- **Lack of awareness:** There is a **lack of awareness among the general public** about the importance of organ donation, the legal framework governing it, and the procedures involved. This can limit the number of potential donors.
- **Cultural beliefs and superstitions:** In India, there are several cultural beliefs and superstitions that discourage organ donation. Some people believe that organ donation is against religious beliefs, or that it can impact the soul or afterlife.
- **Lack of infrastructure:** India faces a shortage of hospitals and medical facilities that are equipped to handle organ transplantation. This can limit the availability of organs for transplantation.
- **Regulatory bottlenecks:** While the legal framework exists, there is a lack of implementation and enforcement of the law. This can lead to issues such as organ trafficking and black market activities.

#### **National Organ and Tissue Transplant Organization (NOTTO):**

- NOTTO is a national level organization set up under Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India.
- It has following two divisions:
  - **National Human Organ and Tissue Removal and Storage Network:** It functions as apex Centre for All India activities of coordination and networking for procurement and distribution of Organs and Tissues and registry of Organs and Tissues Donation and Transplantation in the country
  - **National Biomaterial Centre:** The main thrust & objective of establishing the centre is to fill up the gap between 'Demand' and 'Supply' as well as 'Quality Assurance' in the availability of various tissues. The centre will take care of the Tissue allografts such as Bone and bone products, Skin graft, Cornea and Heart valves and vessel.

#### **Way Forward**

- **Promoting Organ donations is an important initiative** that can save lives and benefit society as a whole.
- For increasing accessibility of donated organs to weaker sections, the public hospitals need to increase the infrastructural capacity to carry out transplantation and provide affordable proper treatment to the poor.

It is suggested that cross-subsidization will increase accessibility to the weaker section. **For every 3 or 4 transplants**, the private hospitals should carry out free of cost transplantation to the section of the population that donates a majority of organs

## 10. Sickle Cell Anaemia

In budget 2023, Finance Minister Nirmala Sitharaman has said that the government will work in mission mode to **eliminate Sickle cell anaemia (SCA) by 2047**.

### What is sickle cell anaemia?

- Sickle cell disease (SCD) is an **inherited group of blood disorders** that is genetic in nature. It is an autosomal recessive disease or Mendelian disorder.
- Cause - It is caused by a mutation in the **hemoglobin-β gene found on chromosome 11**.
- This mutation results in defective haemoglobin (Hb).

**Characteristics** - After giving up oxygen, these defective Hb molecules cluster together resulting in formation of rod like structures.

- The **red blood cells become stiff** and assume sickle shape.
- **Transmission** - It is usually **transferred from the parents to the child during birth** i.e. both parents can be carriers of SCDs.
- **Symptoms** - Babies who are born with sickle cell anaemia might **not show symptoms for many months**.
- Extreme tiredness, fussiness and painfully swollen hands and feet and jaundice.
- **Effects** - The misshapen cells **lack plasticity and can block small blood vessels, impairing blood flow**. The sickle cells die prematurely, resulting in a chronic lack of red blood cells (anaemia), often called sickle-cell anaemia.
- Chronic acute pain syndromes, severe bacterial infections, and necrosis (tissue death).
- **Treatment - Medication, blood transfusions and rarely a bone-marrow transplant** are done.
- Hydroxyurea: This is a medication that can help reduce the frequency of painful episodes and prevent some of the long-term complications of the disease.
- **Bone marrow or stem cell transplantation** which comes with several risks can be a cure.

### What steps have been taken to eliminate SCA?

- **Outreach programmes** - The **Indian Council of Medical Research (ICMR) and the National Rural Health Mission (NRHM)** are undertaking outreach programmes for better management and control of the disease.
- **Portal for data collation** - The Ministry of Tribal Affairs launched a portal wherein people can register themselves if they have the disease, in order to collate all information related to the disease.

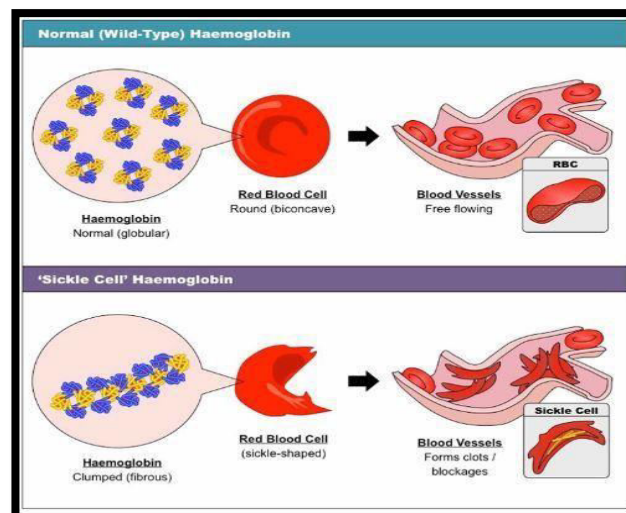
### Massive exercise

Sickle cell disease is a genetic condition that affects an estimated 15 lakh people in India



- The Ministry plans to screen 7 crore persons in 17 highly affected States by 2025-26. One crore screenings had been scheduled for 2022-23
- So far, a little over one lakh persons have been screened
- India seeks to eliminate the sickle cell disease by 2047

■ The Health Ministry is working on maintaining a central registry of SCD patients



- **National Health Mission guideline on Hemoglobinopathies** - It establishes services at the **community level** for pre-marital and pre-conception screening backed by genetic counselling services.
- **Mission to eliminate SCA** – In the union budget of FY 2023-24, it is announced to launch a mission to eliminate sickle cell anemia by 2047.  
The mission entails focus on **awareness creation, universal screening of people in the 0-40 years age group in affected tribal areas and counselling**. The mission will receive funding under the National Health Mission

### 11. Mental Healthcare Act, 2017

The Mental Healthcare Act, 2017 is a comprehensive legislation that provides for the protection and promotion of the rights of people with mental illness. Some of the key features of the Act are:



- **Decriminalization of suicide:** The Act **decriminalizes suicide and prohibits the use of inhuman and degrading treatment** towards those who attempt suicide.
  - **Advance directives:** The Act allows individuals to make **advance directives**, specifying the type of treatment they would like to receive in the event of a mental health issue.
  - **Informed consent:** The Act mandates that patients have the right to give or refuse consent to treatment, and to be informed about the **benefits, side effects, and alternatives of the treatment**.
  - **Mental health review boards:** The Act establishes **Mental Health Review Boards at the national and state levels** to oversee the implementation of the Act and protect the rights of people with mental illness.
  - **Prohibition of inhuman treatment:** The Act prohibits the use of inhuman treatment methods, including chaining, **electroconvulsive therapy (ECT) without anaesthesia**, and solitary confinement.
  - **Right to access mental healthcare:** The Act guarantees the right to access mental healthcare services, and mandates the establishment of mental health services in every district.
  - **Protection of rights and dignity:** The Act aims to protect the rights and dignity of people with mental illness, and prohibits discrimination and stigmatization on the basis of mental illness.
- Establishment of a Central Mental Health Authority:** The Act establishes a Central Mental Health Authority to regulate mental health services in the country

#### Associated Challenges with the Implementation:

In many cases, families refuse to **take them because of the stigma attached to incarceration or the idea that the person is no longer functional** in society. Gender discrimination plays a role here: women are more likely to be abandoned due to **“family disruption, marital discords and violence in intimate relationships**.

The dearth of alternative community-based services -in the form of homes for assisted or independent living, community-based mental healthcare services, and socio-economic opportunities – further **complicates access to rehabilitation**.

While **Section 19** recognises the right of people to “live in, be part of, and not be segregated from society,” there have been **no concrete efforts towards implementation**.

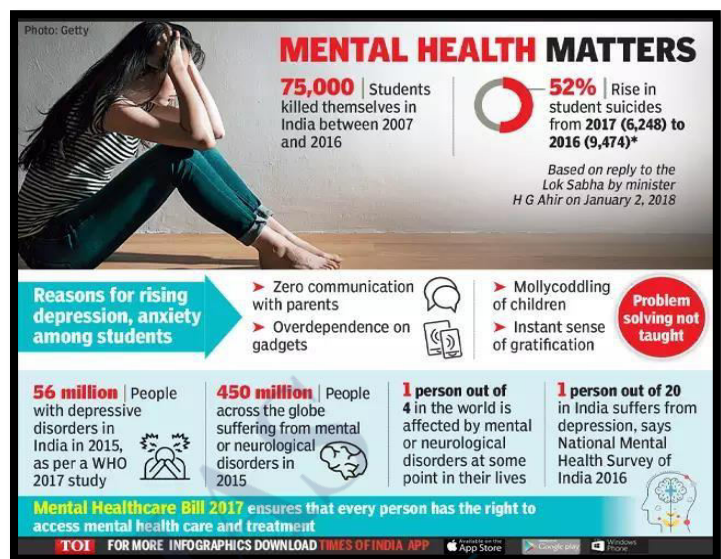
#### Absence of MHRBs:

- The majority of the States have not established State Mental Health Authority and Mental Health Review Boards (MHRBs), and many States have not notified minimum standards which are **meant to ensure the quality of MHIs**.
- MMHRBs are bodies that can draft **standards for mental healthcare institutes**, oversee their functioning and ensure **they comply with the Act**.
- The absence of MHRBs renders **people unable to exercise rights or seek redressal in case of rights violations**.

Poor budgetary allocation and utilization of funds further create a scenario where **shelter homes remain underequipped**, establishments are understaffed, and professionals and service providers are not adequately trained to deliver mental healthcare.

## NHRC flags alert

- **Pity over healthcare institution:** The National Human Rights Commission (NHRC) in a report flagged the “**inhuman and deplorable**” condition of all 46 government-run mental healthcare institutions across the country.
- **Prolonged hospitalization:** The report notes that the facilities are “**illegally**” keeping patients long after their recovery, in what is an “**infringement of the human rights of mentally ill patients**”.
- **Need for Assessment:** These observations were made after visits to all operational government facilities, to assess the implementation of the **Mental Healthcare Act, 2017 (MHA)**.



### Worldwide initiatives

- Every year on **October 10, World Mental Health Day** is commemorated with the overarching goals of increasing awareness of mental health concerns worldwide and mobilising support for mental health.
- The **66th World Health Assembly** also approved the WHO’s **Comprehensive Mental Action Plan for 2013–2020**.

**The WHO launched the Mental Health Atlas in 2017 and updates it every three years**

### Way Forward

- The Act must be reviewed regularly to ensure that it remains effective in addressing the changing needs of individuals with mental health issues. Additionally, resources must be made available to ensure that the Act is adequately implemented and enforced.

## 12. The Silent Pandemic of Antimicrobial Resistance (AMR)

### Antimicrobial Resistance:

- **It is the resistance acquired by any microorganism** (bacteria, viruses, fungi, parasite, etc.) against antimicrobial drugs that are used to treat infections.
- **It occurs when a microorganism changes** over time and no longer responds to **medicines** making infections harder to treat and increasing the risk of disease spread, severe illness and death.
- **The World Health Organisation (WHO)** has identified AMR as one of the **top ten** threats to global health.
- **Microorganisms that develop antimicrobial resistance** are sometimes referred to as “**superbugs**”.

### Causes of AMR

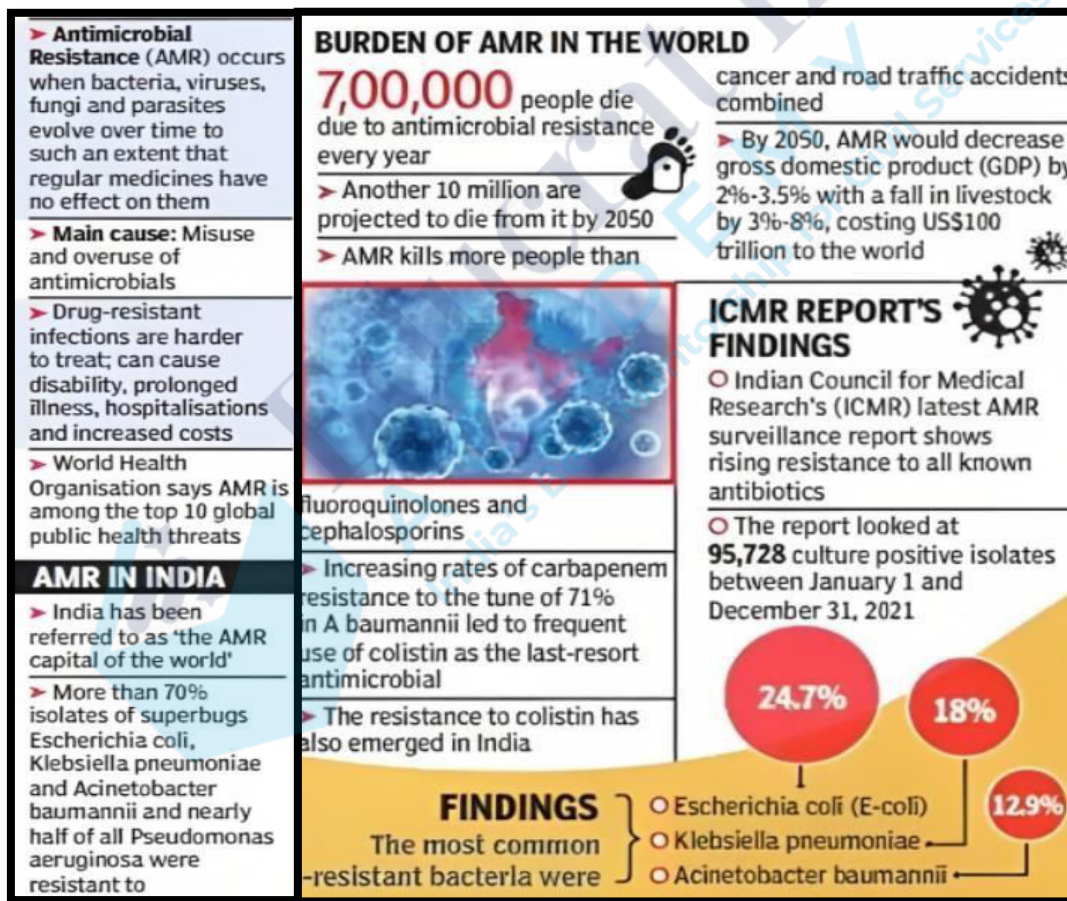
- **Usage** - There is an increasing use of antibiotics for human and veterinary purposes in the recent period. There is irrational consumption (over usage) of broad spectrum antibiotics.
- **Lack of effective regulation** - The current standards of **Central Pollution Control Board** do not include antibiotic residues, and they are not monitored in the pharmaceutical industry effluents.
- The existing **good manufacturing practices (GMP)** under the WHO (2016) framework is restricted to drug safety alone and does not recognise the environmental risk with pharmaceuticals products.

- **Waste Discharge** - The uncontrolled discharge of untreated urban waste is another major source for AMR in many low and middle income countries

**Threats due to AMR:**

- **AMR imposes a huge health cost** on the patient in the form of longer hospitalization, health complications and delayed recovery
- It puts patients undergoing major surgeries and treatments, such as chemotherapy, **at a greater risk.**
- Patients recover from advanced medical procedures but **succumb to untreatable infections.**
- In 2019: AMR was associated with an **estimated 95 million human deaths.**
- **OECD Report(2018): warned of a phenomenal increase, by 2030,** of resistance to back-up antibiotics (second and third-line).
- **AMR adds to the burden of communicable diseases** and strains the health systems of a country.
- **An Indian Council of Medical Research (ICMR) study(2022) showed that the resistance level increases from 5% to 10% every year** for broad-spectrum antimicrobials.

An Indian Network for Surveillance of Antimicrobial Resistance (INSAR) study indicated a high rate of resistance to commonly used drugs such as ciprofloxacin, gentamicin, co-trimoxazole, erythromycin and clindamycin



**What efforts were taken by India to tackle the rising AMR?**

- **Muscat Manifesto** - At the **Third Global High-Level Ministerial Conference on Antimicrobial Resistance** held in Muscat, over 30 countries adopted the Muscat Ministerial Manifesto on AMR.
- The Muscat Manifesto recognised the need to accelerate political commitments in the implementation of One Health Action for controlling the spread of AMR.
- **Reporting to GLASS** - India plans to strengthen private sector engagement and the reporting of data to the **WHO Global Antimicrobial Resistance and Use Surveillance System (GLASS).**

- **The National Action Plan on Antimicrobial Resistance (2017-21)** – It emphasised the effectiveness of the government’s initiatives for hand hygiene and sanitation programmes such as **Swachh Bharat Abhiyan, Kayakalp and Swachh Swasth Sarvatra**.
- **The National Health Policy 2017** – It has offered specific guidelines regarding use and limiting the use of antibiotics as over-the-counter medications and restricting their usage in livestock.
- It also called for scrutiny of prescriptions to assess antibiotic usage in hospitals and among doctors.

### 13. Is judicial majoritarianism justified?

Judicial majoritarianism refers to **numerical majorities**, i.e., **number of judges supporting a judgment**.

- Cases in SC are usually heard either by Division Benches which consist of two judges or by Constitutional Benches which consist of five, seven, nine, 11 or even 13 judges.
- **Judicial majoritarianism deals with the Constitution divisions** which involve a substantial interpretation of constitutional provisions. Judicial majoritarianism **helps in the decision-making process easier**.
- The concept of **majoritarianism comes from Article 145(5) of the Constitution** which states that no judgment in such cases can be delivered except with the concurrence of a majority of the judges.
- However, it also says that judges are free to deliver dissenting judgments or opinions.

#### What are the Concerns?

- **Blind acceptance:** This situation raises questions with respect to **our blind acceptance of numerical majority judgements**.
- **Disregard for dissent:** This flags issues in judicial decision-making and the constitutional disregard of analysis and appreciation of arguments and evidence in dissenting judgments.
- **Obscure Situations:** All judges on a particular Bench give their rulings on the same set of facts, laws, arguments and written submissions. In light of the same, any differences in judicial decisions can be attributed to a difference in either the methodology adopted and the logic applied by the judges in their interpretation.
- In such circumstances, it is entirely possible that the majority may fall into either methodological fallacies and errors or be limited by their ‘judicial hunch’ respectively.
- **Question on Head Counting Procedure:** A study also found that the rate of dissent where the Chief Justice was a part of the Bench was lower than in those cases where the Chief Justice was not on the Bench.
- Such situations call into question the efficiency and desirability of head-counting procedures for a judicial determination on questions of national and constitutional importance.

#### What can be the way ahead?

- The system proposed by **Ronald Dworkin** can be adopted as an alternative to **judicial majoritarianism**.
  - He proposed for a system which may either give more **weightage to the vote of senior judges given that they have more experience or to the junior judges** as they may represent popular opinion better.
  - **Imbibe critical discourse:** The absence of a critical discourse on judicial majoritarianism represents one of the most fundamental gaps in our existing knowledge regarding the functioning of our Supreme Court.
- Cases to expert benches:** As pending Constitutional Bench matters are listed for hearing and judgments are reserved, we must reflect upon the arguments of judicial majoritarianism on the basis of which these cases are to be decided.

### 14. Under India’s presidency, a people’s G20

India has assumed the **prestigious G20 presidency** and will, later this year, convene the G20 Leaders' Summit.

- **India will host over 200 meetings in 56 locations** across the length and breadth of the country.
- Most of them confined the meetings to their capital city or perhaps a few additional locations.

#### Advantages of holding G20 meet in different parts of country:

- It reflects a **decentralized and cooperative federalism** approach to broad base the G20 presidency and make every state
- Every part of India will feel to be a **vital stakeholder** in this massive international exercise.
- Opportunity for states and cities to **showcase their rich and diverse cultural heritage** and spruce up its landscape and infrastructural inventory.

#### India's G20 agenda:

- Green growth
- Digital transition and sustainable progress (for which this author has coined the acronym GDP)
- Reinforces how this could truly be a "People's G20"
- Transform forum for international economic cooperation into a forum for people-to-people cooperation.

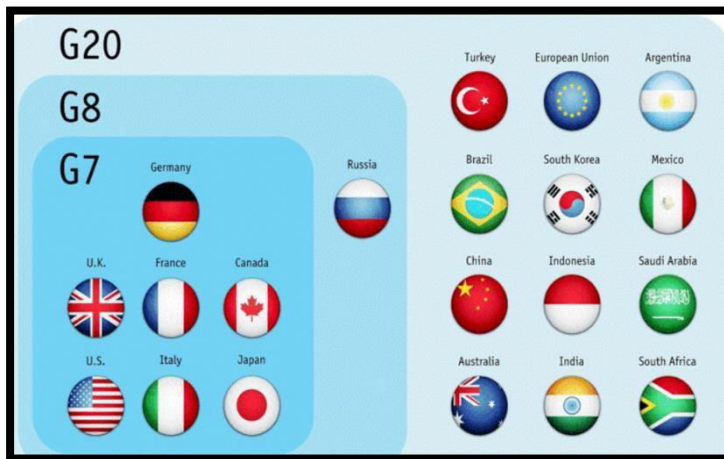
#### Achievements by India showcasing citizen centric growth:

- **45 crore Jan Dhan accounts**
- **11 crore Swachh Bharat toilets**
- **220 crore Covid vaccination** doses under the largest free vaccination
- Housing for the poor under **PM Awas Yojana**
- 9 crore Ujjwala gas connections
- Affordable healthcare for all under **Ayushman Bharat** covering 50 crore Indians
- **Jan hit and jan kalyan**, or people's welfare, has been the guiding philosophy
- Jan bhagidari being the key component of PM Modi's governance style.
- Padma Awards has been recast as the "**People's Padma Awards**" by making the process more participatory and transparent

#### Transforming G20 into a people's forum:

- The G20 presidency is a watershed moment in India's history, the history of G20 too will script a new chapter by moving away from a "**protocol-driven G20**" to a "**People's G20**".
- The government has translated the G20 India theme of "**Vasudhaiva Kutumbakam**" into practical reality by going in for an "**all of government**" or "**Team India**" approach.
- India's G20 presidency offers a ray of hope by not just articulating the voice of the "**Global South**" but by providing leadership.

By putting people at the front and center of its G20 efforts, India's presidency may well turn out to be the "**Setu of Solidarity**" that can bridge an increasingly fragmented world and steer it towards "**One Earth, One Family and One Future**".



## 15. The anti-defection law is facing convulsions

A five-judge Bench of the Supreme Court of India is presently hearing a set of cases popularly known as “**Maharashtra political controversy cases**”.

- These cases arose in 2021, when the ruling coalition lost power after a faction of the party joined hands with another party to form the new ruling coalition.
- The **Election Commission of India (ECI)** had recently passed an order declaring that the faction that broke off from the then ruling party is entitled to the party name and symbol.

### 1. **Anti-defection law:**

- 52<sup>nd</sup> amendment in 1985 inserted **10<sup>th</sup> schedule** (anti-defection law)
- Grounds for disqualification are mentioned in **Article 102(2) & 191(2) for MP's and MLA's**

#### Defected:

1. Elected member (gives up & voting)
2. Independent member
3. Nominated member

#### Exceptions:

1. Speaker or chairman
2. Party could be merged into another (2/3 majority)

- **Presiding Officer** decides on the question of disqualification
- Issue is – SC interpretation in **G Vishwanathan judgment** in 1996 case (unattached member) → Amar Singh(MP)

#### Advantages

- **Stability and party discipline**

#### Disadvantages

- **Members freedom gets affected**

### Reasons for bringing anti-defection law:

- **Governments:** Defections caused the frequent fall of governments
- **Instability:** It caused great instability in political parties with power-seeking politicians wreaking havoc on political parties.

While on the one hand this empowered party leadership against the legislative backbench, and weakened the prospect of intra-party dissent, the **Tenth Schedule viewed this as an acceptable compromise in the interests of checking unprincipled floor-crossing.**

### Issues

**No Time Cap for Presiding Officer.** The law does not specify a time-period for the Presiding Officer to decide on a disqualification plea. This allows the defected members to continue as members of the House.

Allowing a Speaker or Deputy Speaker, who is himself under threat of losing his position in the House, to function as a Tribunal, may lead to bias.

**Ambiguity in Nature of the Split:** There is no proper light on the 2/3 majority factor. It is not clear whether the MLAs will still face disqualification if they defected to the ruling party in small groups yet constitute more than 2/3rd of the opposition.

**Against the Spirit of Democracy:** There have been instances where after the election results, winning candidates resign from their membership of the House as well as the party from which they got elected which is against the spirit of Democracy.

#### **Undermining Representative & Parliamentary Democracy:**

The MP or MLA has to follow the party's direction blindly and has no freedom to vote in their judgment.

**Creating legal fiction :** Merger of two third members of the legislature party can be deemed to be a merger of political parties, even if there is no actual merger of the original political party with another party.

### What should be the approach going forward?



- First, **the Supreme Court needs to adjudicate whether an actual merger** of Political Parties is a condition precedent for the merger of Legislature Parties (i.e., the should the merger of Legislature Parties be deemed as merger of Political Parties).
- Second, **the Speaker/Chairperson should give decisions within 3 months** as advised by the Supreme Court. Further, an independent tribunal can be created in the long run to decide cases under the Tenth schedule. This would effectively reduce partisan role played by the Speaker.
- Third, **the Law Commission in 1999 and the National Commission to Review the Working of the Constitution (NCRWC) in 2002** had recommended to delete the clause related to merger (Paragraph 4, Exception to Disqualification). Parliament should consider, debate and decide on the recommendations.
- Fourth, **the Dinesh Goswami Committee Report** recommended that disqualification of a member should only be attracted in the event a member violates a whip on matters related to Motion of Vote of Confidence, a No-confidence Motion, Money Bill or a Motion of Vote of Thanks to the President's address.

## 16. Shaping a more disabled-friendly digital ecosystem

**Census 2011:** 21% of India's population is **disabled is a gross underestimation.**

According to the World Health Organization, about **16% of the global population is disabled.**

If it is applied to the Indian context, there are at least **192 million disabled people.**

### Status of accessibility of digital space:

- The report was launched by, **Secretary, Department of Empowerment for Persons with Disabilities, Government of India.**
- The report evaluates the **accessibility of 10 of the most widely used apps in India, across five sectors.** These sectors were chosen based on broad stakeholder consultation with people with disabilities.
- A set of globally recognised parameters to determine how disabled friendly an app or website is to evaluate these apps.
- Based on the number of violations, the level of accessibility of the apps was categorised as **"high", "medium" and "low"**. The report found that four apps ranked low, five were in the medium category.

TYPES OF DISABILITIES INCREASED TO 21 IN ACT		
<ul style="list-style-type: none"> <li>➤ The Rights of Persons with Disabilities Act, which overwrote the former Persons with Disabilities Act of 1995, was passed by Parliament in Dec 2016</li> <li>➤ The number of disabilities have been increased from seven to 21</li> <li>➤ It added acid attack victims, speech and language disability and specific-learning disability among the list of disabilities</li> </ul>		<ul style="list-style-type: none"> <li>➤ Dwarfism and muscular dystrophy have been indicated as a separate class of specified disability</li> <li>➤ The Act also casts the responsibility up on the state governments to take measures to ensure that the disabled persons enjoy their rights equally with others</li> <li>➤ Additional benefits such as reservation in higher education, government jobs and reservation in allocation of land have also been provided for such persons</li> </ul>
<ul style="list-style-type: none"> <li>➤ The new categories of disabilities also include three blood disorders – Thalassemia, Hemophilia and Sickle Cell disease</li> </ul>		

### Way forward to improve the accessibility of digital space:

- There is a **need to work with these service providers.** They need help to design practices and processes that will not only **improve app accessibility but also educate** their stakeholders about accessibility and people with disabilities.
- This will also **help change attitudes of the business community** around disability in the country. They will move away from a charity approach to a **rights-based and investment outlook.**
- **AI can help to further automate the accessibility testing process.** Feedback from users with disabilities can now be analysed at scale to provide actionable insights to developers and companies.
- Everything digital must be **accessible to everyone.** This starts with incorporating the principles of accessibility and inclusive design into every digital offering from inception.

- India needs to be truly accessible for all people with disabilities. **Organisations, companies, civil society**, the government and the courts must work upon it.

#### **Constitutional Frameworks for Disabled in India**

- **Article 41 of the Directive Principles of State Policy (DPSP)** states that State shall make effective provision for **securing right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement**, within the limits of its economic capacity and development. The subject of 'relief of the disabled and unemployable' is specified in the state list of the Seventh Schedule of the constitution.

### 17. Trading more within Asia makes economic sense

IMF has warned that global trade would slow down **from 5.4% in 2022 to 2.4% in 2023**. It calls for having a re-look at regional trade across Asia.

#### **Potential:**

- **Asia is increasingly becoming the center of the world economy.**
- By 2040, the region could account for more than half of the global GDP and about 40 % of global consumption.
- Total merchandise trade between South Asia and East Asia grew at 10% annually between 1990 and 2018 to \$332 billion in 2018. This could reach \$500 billion looking ahead.
- The handful of **free trade agreements (FTAs)** linking economies in South Asia with East Asia may rise to 30 by 2030.
- South Asia-East Asia trade is linked to India's trade re-aligning towards East Asia through its '**Look East' and 'Act East' policies**.

#### **Importance of Enhanced Inter-Asian Trade**

- After many crises like COVID-19 and the Ukraine-Russia war, more trade will help in chasing recovery faster than other world markets.
- With a business culture fuelled by technology and innovation, small companies and start-ups are core to future growth in Asia.
- **40% of the world's "unicorns" are from Asia.** It can tap new growth opportunities by exploring fresh possibilities closer to home.
- **Asia could reach 50% of global GDP by 2040 and drive 40% of the world's consumption** by properly utilizing the Asian market.

#### **What needs to be done for regional trade integration across Asia?**

- **Reforms in taxation structure**— Regional trade integration across Asia can be encouraged by gradually reducing barriers to goods and services trade. Import tariffs and non-tariff measures have risen in several South Asian economies since the **2008 global financial crisis**.
- Trade opening in South Asia should be calibrated with tax reforms as trade taxes account for much of government revenue in some economies.
- **SEZs reforms**— There is a need to improve **the performance of special economic zones** and invest in services SEZs to facilitate exports.
- South Asia has **over 600 SEZs in operation**. These SEZs have a variable record in terms of exports and jobs and fostering domestic linkages.

- SEZ reforms in South Asia require **macroeconomic and political stability, good regulatory policies** towards investors, reliable electricity and 5G broadband cellular technology, and also worker skills.
- **Comprehensive FTAs**– These will eventually lead to the **Regional Comprehensive Economic Partnership** to provide for a regional rules-based trade.
- South Asia is a latecomer to FTAs when compared to East Asia. But, it has made a start with the Japan-India FTA, the Sri Lanka-Singapore FTA and the Pakistan-Indonesia FTA.
- South Asian economies need to **improve tariff preference use**. They need to be better prepared in navigating the complex rules of origin in FTAs and including issues relevant to global supply chains in future FTAs.
- **Reinvented trade-focused BIMSTEC**– It can facilitate stronger trade ties and support the interests of smaller members.
- It requires better resourcing its **Secretariat, BIMSTEC FTA**, trade capacity in smaller economies, and introducing dialogue partner status.

#### Conclusion:

- While broad South Asia-East Asia trade may be desirable, the advent of increasingly complex geopolitics might rule this out for some time.
- Accordingly, a narrower geographical coverage between South Asia and Southeast Asia may be a building block for eventual trade integration across Asia.
- Having the political will to implement pro-trade policies can improve the lives of Asians.
- India is South Asia's largest economy and its G-20 presidency can be a good platform to initiate these changes.

## GS3

### 1. India's green hydrogen challenge

#### Green hydrogen:

It is **produced by electrolysis of water using renewable energy (like Solar, Wind) and has a lower carbon footprint.**

Electricity splits water into hydrogen and oxygen.

**By Products :** Water, Water Vapour

#### National Hydrogen Mission:

- **It is a program to incentivise the commercial production** of green hydrogen and make India a net exporter of the fuel.
- **The Mission will facilitate demand creation, production, utilization and export of Green Hydrogen.**
- **Strategic Interventions for Green Hydrogen Transition Programme (SIGHT):** It will fund the domestic manufacturing of electrolyzers and produce green hydrogen.
- **Green Hydrogen Hubs:** States and regions capable of supporting large scale production and/or utilization of hydrogen will be identified and developed as Green Hydrogen Hubs.
- **Aim:** Production of 5 **MMT (million metric tonne) per annum** with an associated **renewable energy** capacity addition of about **125 GW (giga watt) by 2030.**

#### Challenges to produce and use green hydrogen:

##### Electrolyser:

According to IEA (International Energy Agency)-2021: Global manufacturing capacity of electrolysers stands at 8 GW/year.

If India has to achieve its 2030 target, it would need anywhere from 60-100 GW of electrolyser capacity- Almost 12 times the current global production capacity.

India currently has launched projects to manufacture electrolysers, but the actual numbers as of today are negligible.

Access to critical minerals such as nickel, platinum group metals and rare earth metals such as lanthanum, yttrium and zirconium could hinder scaling up electrolyser manufacturing capability in India.

India also has limited processing capabilities in these minerals

## Energy source

**Green hydrogen requires renewable energy** as a source of electricity.

India currently estimates a capacity of **125 GW of renewable energy**

To meet its green hydrogen 2030 targets: It would be in addition to the already proposed targets of **500 GW renewables energy capacity**.

**India has only achieved 119 GW of the 175 GW** targeted capacity using solar, wind, bio-power and small hydro.

## End use:

**Most of the demand for hydrogen comes from the chemical industry** to produce ammonia for fertilizers, followed by refining for hydrocracking and the desulphurisation of fuels.

**It can be a source of heat for industry**, especially in hard to abate and electrify sectors such as steel, cement and aluminum production.

**Electricity can directly serve the purpose**, having alternative energy carriers for the same use case would not make technical or economic sense.

**Hydrogen is a highly combustible and volatile element** and its potency in other forms such as ammonia or methanol is only relatively reduced.

## Endogenous resources

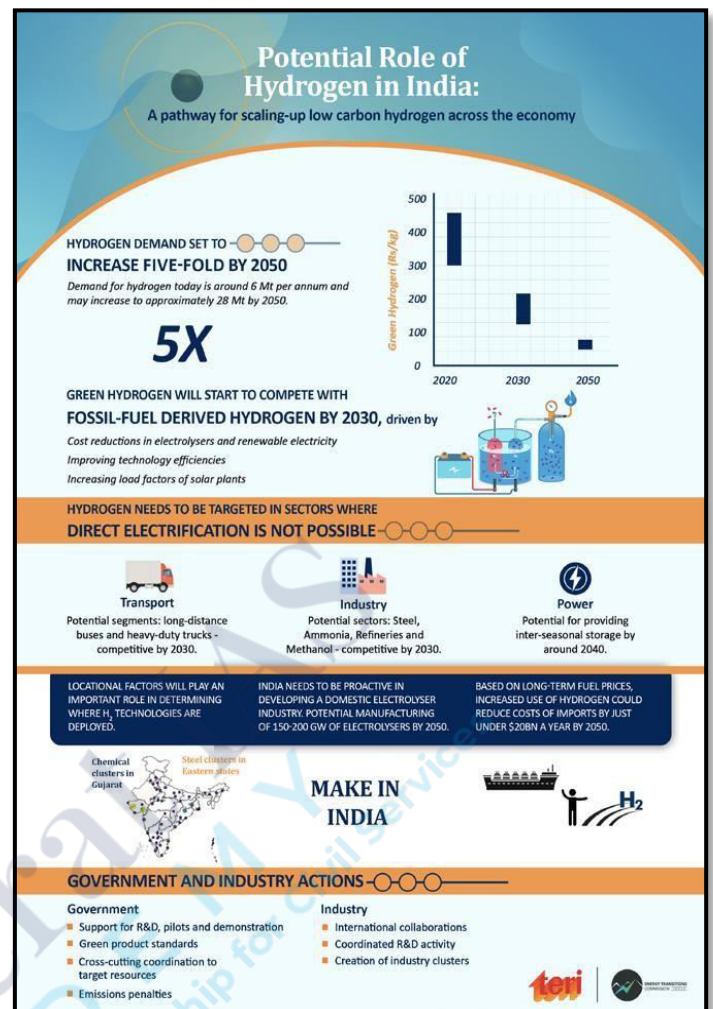
- Production of one kg of hydrogen by electrolysis requires around nine liters of water. Several parts of India are already severely water-stressed

## Steps taken by the government

- The Union Budget for 2021-22 has announced a National Hydrogen Energy Mission (NHM) that will draw up a road map for using hydrogen as an energy source.
- **Global levelized cost of producing green hydrogen ranges between Rs 250-650/kg (\$ 3-8/kg)**
- India aims to produce green hydrogen in the range of Rs 100-150/kg (\$ 1-2/kg) by 2030.

## Way Forward

- **Electrolyser challenge would entail India setting up large scale manufacturing**, building expertise and securing geo-political partnerships for procurement of critical minerals.
- **Improving overall technical and economic viability** of electrolysers year-over-year while competing with other global players.
- **It would require India to add efficiently and economically close to 100 GW** of overall renewable energy capacity per year over the next seven years and make available dispatch corridors and mechanisms.
- **The conversion efficiency** from one form of energy carrier to another in the end use application will determine the scale of green hydrogen's applicability.
- **It is critical to establish safety standards** for storage and transportation, adding to the cost of hydrogen as a fuel.
- **Solutions need to be found** to cater to this additional water demand. **Desalination** has been suggested
- The **proposed green hydrogen hubs can strike a fine balance between being renewable energy rich, water resource rich and being close to hydrogen demand** (end-use) centers for them to be economically feasible while keeping the additional costs minimum.
- Set a **national target for green hydrogen and electrolyser capacity**: A phased manufacturing programme should be used to build a vibrant hydrogen products export industry in India such as green steel (commercial hydrogen steel plant).



## 2. Earthquakes

**Turkey** has been getting hammered by a series of powerful earthquakes.

**Earthquake:** An earthquake is the shaking of the Earth when two blocks of the earth suddenly slip past one another. The surface where they slip is called the fault or fault plane.

### Types of Earthquakes:

**Tectonic:** A tectonic earthquake is one that occurs when the earth's crust breaks due to geological forces on rocks and adjoining plates that cause physical and chemical changes.

**Volcanic:** A volcanic earthquake is any earthquake that results from tectonic forces which occur in conjunction with volcanic activity.

**Collapse:** A collapse earthquake are small earthquakes in underground caverns and mines that are caused by seismic waves produced from the explosion of rock on the surface.

**Explosion:** An explosion earthquake is an earthquake that is the result of the detonation of a nuclear and/or chemical device.

**Reservoir induced Earthquakes:** These occur in the areas of huge reservoirs like dams.

## Challenges in India's Earthquake preparedness

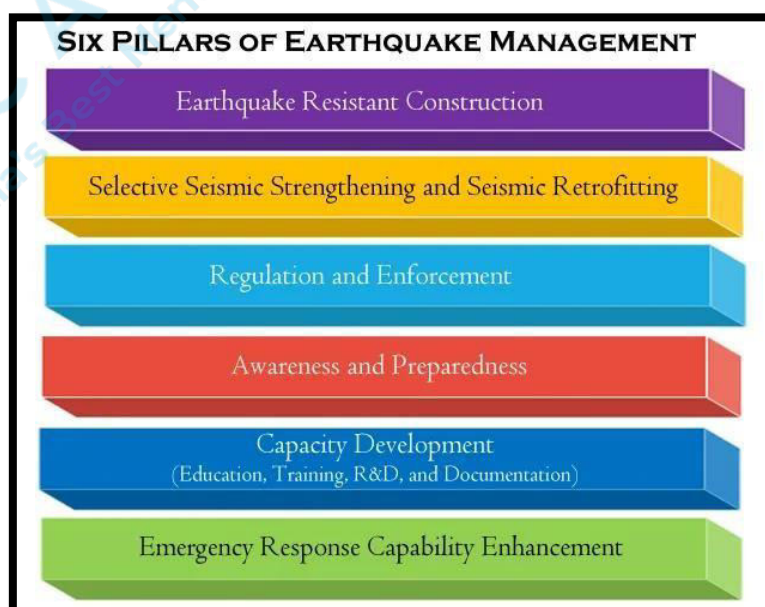
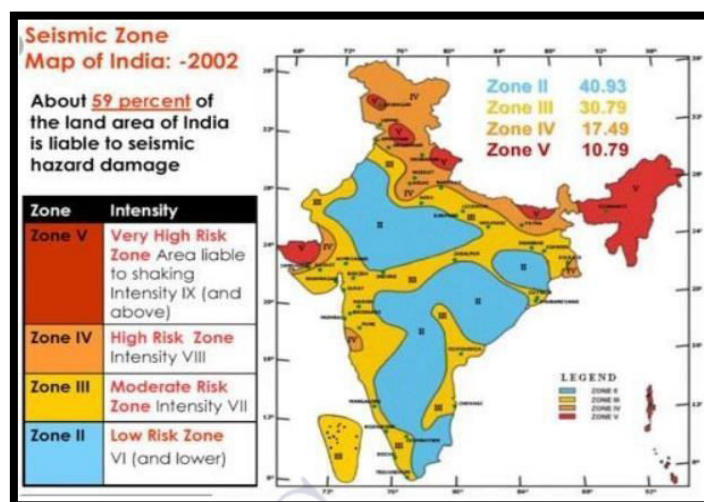
- The majority of the earthquake-prone zone is a **hilly and mountainous area**. Retrofitting is challenging and expensive in these areas
- There is a **shortage of skilled labour** for designing and constructing earthquake-resistant structures.
- **Building codes are not strictly enforced**, and safety requirements are not closely maintained.

According to NDMA, Ahmedabad's nearly 4,000 multi-story buildings won't withstand a high-magnitude earthquake because of poor design.

- The process of raising money during calamities is still **not standardised**. There is not enough awareness of the national disaster relief fund.
- The **difficulties in coordinating the response** to the floods in Uttarakhand indicate that the disaster response system has shortcomings.
- The **regime for generating awareness is not effective** enough. The local populace was not sufficiently trained for post-disaster operations.

## What Steps can be Taken for Earthquake Preparedness in India?

- **Building Codes and Standards:** India has established **building codes and standards for earthquake-resistant construction**.
- It is important to **strictly enforce these codes and standards to ensure that new buildings are built to withstand earthquakes**. This will also require regular inspections and enforcement of existing building codes.
- **Retrofitting and Reinforcement:** Older buildings may not meet current earthquake-resistant standards, and many of them **can be retrofitted or reinforced to improve their seismic performance**.
- **Emergency Response Planning:** Planning for emergency response is critical for minimising the impact of earthquakes. This includes **developing evacuation plans, establishing emergency shelters, and training personnel on how to respond to earthquakes**.
- **Research and Monitoring:** Investing in research and monitoring can help improve **our understanding of earthquakes and their causes**, and can also help to develop better methods for predicting and mitigating their impact.



- **Land-Use Planning:** It is important to consider the potential impacts of earthquakes when planning and developing land-use policies. This includes **limiting development in areas that are prone to earthquakes** and ensuring that new development is designed and constructed in a way that minimises the risk of damage.
- **Architectural practices:** Uroosi architecture of Kashmir, **Sandbox technique** etc.

#### **Best practices (Japan and San Francisco):**

- Japan has invested heavily in **technological measures (skyscrapers with counterweights, small houses on flexible foundations, public infrastructure with automated triggers)** by cultivating an industry around earthquake mitigation and fostering expertise.
- **San Francisco is the world's most famous earthquake-prone city** which implemented policy changes similar to Japan.
- The Gujarat government: **Immediately adopted** (after the 2001 Bhuj earthquake) **new town planning schemes that widened roads and created routes for evacuation and relief work.**  
Programmes like the ongoing Urban 20 meetings: An excellent opportunity for international knowledge exchange on earthquake preparedness.

### 3. Can we use moon dust to slow down global warming?

It is said that a summerless year followed the **volcanic eruption of Mt. Tambora in 1816** which released sulphates and other aerosols into the stratosphere that cooled the atmosphere. This has encouraged people to examine the possibility of using similar methods artificially to slow down global warming.

#### **Moon dust coolers**

- In a recent paper published in the **PLoS Climate journal**, researchers from the U.S. have proposed the idea of **launching tonnes of dust from the moon** to a point in space where the gravitational forces of the earth and the Sun cancel each other out.
- Launching the dust to such a point will ensure that the dust will be stationed there which helps cast a shadow on earth and reduce sunlight to offset carbon emissions.
- **Aerosols in the stratosphere**, particularly those which are radiation-scattering such as sulphates, have a cooling effect.
- It is to be noted that the summerless year which followed the 1816 eruption significantly affected crop yields worldwide causing disease and starvation.
- Additionally, various climate models also have confirmed that dimming the amount of incoming sunlight with stratospheric aerosols will have similar implications on crop yield.
- A few studies however have argued that such droughts would not be as harmful and that the GDPs of the countries will be positively affected by such solar radiation management (SRM).

#### **Solar radiation management (SRM)**

- **Solar radiation management (SRM)** is a type of climate engineering that aims to reduce or slow down global warming by reflecting sunlight.

#### **The proposed methods of SRM include increasing the planetary albedo by:**

- **Placing reflective balloons, sunshades, or mirrors in space.**
- Injecting heat-deflecting aerosols directly into Earth's stratosphere to bounce more of the Sun's heat back into space.
- **Marine Cloud Brightening** involves introducing saltwater particles from the ocean up into the cloud layer to increase the reflectivity of clouds.
- **Adopting surface-based approaches** like whitening roofs, growing more reflective crops, etc.

- Adopting restorative methods such as protecting natural heat reflectors like sea ice, snow and glaciers with engineering projects.
- SRM is said to be a fast and inexpensive approach to slowing down global warming.

#### Associated risks

**First**, many experts fear that it may **impair the self regulation capacity** of natural ecosystems thereby doing more harm in the long run.

**Second**, they may **distract attention from the need for deep cuts** to gross emissions which is achievable with the right political will and resource mobilization. Such measures thus pose pivotal problems of intergenerational justice

**Third**, the impacts will **not be limited to national borders**. For instance, unilateral use of SAI could lead to significant adverse effects in other countries, leading to conflicts. Similarly if governments ever gain control of changing the course of potentially damaging storms, diversions that direct storms toward other countries **may be seen as acts of war**.

**Fourth**, the **unintended consequences** could include an adverse impact on rainfall, crop production and ocean acidification. Large-scale spraying of aerosols into the atmosphere could also deplete the ozone layer, enlarging the ozone hole. Another big risk is that when the aerosol injection is terminated abruptly this will cause rapid warming, disrupting the water cycle and leading to **massive biodiversity loss**. The impacts of such a “termination shock” would be much worse than the effects of climate change such measures aim to avoid.

**Fifth**, there is also an **ethical argument** that ‘do we have the right to manage and manipulate nature?’

#### Way forward:

- First, countries can focus on technologies that have surpassed the ideation stage and reached the experimentation stage like **Stratospheric aerosols injection (SAI)**. There should be numerous short-scale experiments before scaling up the process for a widespread application
- Second, a lot more research is required to understand the impacts of SRM on the **broader regional ecosystem**. Further, there is a need for international cooperation among educational and research institutes.
- Third, **India needs to play a major role in framing global governance** around the use of such technologies. These technologies have global ramifications and must be governed by an international rules-based system.
- Fourth, **geoengineering cannot be treated as a license to continue emitting more GHGs** with no changes to current consumption and production patterns. Specific technologies that can help us achieve negative emissions need to be publicly funded (most obviously through the diversion of fossil fuel subsidies)

#### 4. The status and proceeds of disinvestment

**In the Union Budget for 2023-24**, the government has set a disinvestment target of ₹51,000 crore, down nearly 21% from the budget estimate for the current year.  
It is also the lowest target in seven years.

##### Evolution of Disinvestment in India

- **Disinvestment in India began in 1991-92** when 31 selected PSUs were disinvested for Rs. 3,038 crores. The term ‘disinvestment’ was used first time in **Interim Budget 1991**.

##### DISINVESTMENT:

It means **sale or liquidation of assets by the government** (usually Central and state public sector enterprises projects or other fixed assets).

In some cases, disinvestment may be done to privatise assets. However, not all disinvestment is privatisation.

In complete privatisation, 100% control of the company is passed on to the buyer.



- Later, **Rangarajan committee, in 1993**, emphasised the need for substantial disinvestment.
- The policy on disinvestment gathered steam, when a new Department of Disinvestment was created in **1999, which became a full Ministry in 2001**.
- But in 2004, the ministry was shut down and was merged in the Finance ministry as an independent department.
- Later, the Department of Disinvestments was renamed as **Department of Investments and Public Asset Management (DIPAM) in 2016**. Now, DIPAM acts as a nodal department for disinvestment.

#### Benefit of Disinvestment:

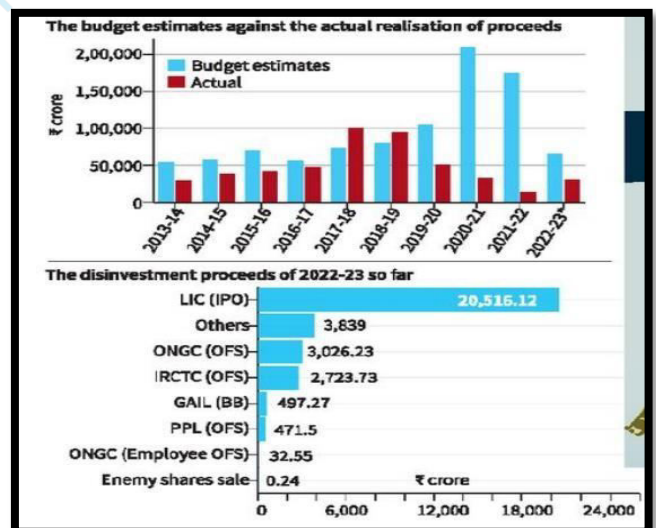
- **Reduce money crunch:** The government may disinvest in order to reduce the fiscal burden or bridge the revenue shortfall for that year.
- **Deficit financing:** It also uses disinvestment proceeds to finance the fiscal deficit, to invest in the economy and development or social sector programmes, and to retire government debt.
- **Promote private ownership facilitation:** Disinvestment also encourages private ownership of assets and trading in the open market.
- Do away with loss-making: If successful, it also means that the government does not have to fund the losses of a loss-making unit anymore.

#### Issues:

- **Loss of regular payments** to the government: Profit making PSUs pay dividend to the govt at regular interval.
- **Can create private monopoly:** Disinvestment might create private monopoly in place of public monopoly. Eg., **Disinvestment of VSNL to TATA, IPCL to Reliance**
- **Vague classification of strategic and non-strategic sectors:** Many proponents claim that govt should retain its presence in strategic sector & going for disinvestment in non-strategic sectors. However, the classification of strategic and non-strategic sector is not done properly. Eg., **Strategic disinvestment in Oil sector might threaten the energy security of India.**
- **Faulty model:** Using disinvestment funds to bridge the fiscal deficit has been termed as a faulty model by many analysts. It is equivalent to selling family silver to meet short term goals.

#### Current status of disinvestment:

- The Centre has not met the disinvestment target for 2022-23 so far, having realised ₹31,106 crore to date.
- According to the recently release **Economic Survey report**, about ₹4.07 lakh crore has been realised as disinvestment proceeds in the past nine years.
- **Post-2014 the government is engaging with the private sector** as a co-partner in the development.
- So far, different central governments over the last three decades have been able to meet annual disinvestment targets only six times.



#### Conclusion:

Disinvestment should ideally be driven by the long-term vision of the government on the extent to which it wants to privatise the economy and the sectors where it needs to retain a presence — and not by the need to raise revenues.

## 5. India's R&D estimates are an incomplete picture

India's research and development (**R&D**) expenditure-GDP ratio is **0.7 (very low)** when compared to major economies and is much below the **world average of 1.8**

- The main reason is the **low investment in R&D by the corporate sector**. While the corporate sector accounts for about two thirds of gross domestic expenditure on R&D in leading economies, its share in India is just 37%.

#### **Issues with GERD statistics in India:**

- A 2022 report of the National Science Foundation of the United States on Foreign R&D by U.S.-based MNCs shows a **spending \$9.5 billion on R&D in India in 2018**.
- But the **DST has provided an estimate of ₹60.9 billion R&D** spending in 2017-18 by foreign MNCs. It is only about 10% of what U.S. firms have reported to have spent in India on R&D.

#### **Why are GERD statistics underestimated in India?**

- The **National Science and Technology Management Information System (NSTMIS) of the DST** is the agency that compiles GERD statistics in India.
- While it is easier to gather the information on R&D by the government sector, the higher education sector and public sector enterprises, the **challenge lies in collecting data from the private corporate sector**. The method used for identification of R&D performing firms does not capture all the R&D performing firms.
- The NSTMIS relies on the Department of Scientific and Industrial Research list of recognised R&D units. The DSIR list may not have many of the actual R&D performers for two reasons:
  - Firms which consider government incentives **as not attractive enough** may not register themselves with the DSIR.
  - It may be difficult for R&D firms in services such as software and R&D services to meet the **requirement of having separate infrastructure** for R&D to distinguish it from their usual business.
- A study at the Institute for Studies in Industrial Development found **that only 11% of firms receiving foreign investment for R&D purposes** had been registered with DSIR.

#### **Secondary sources are unreliable:**

- **The survey conducted by the NSTMIS is the key source of R&D statistics of India**. For those firms which do not respond to the survey, the data is collected from secondary sources such as **annual reports and CMIE**. This method will work only if firms disclose their R&D spending.
- A **review of the documents submitted to the Ministry of Corporate Affairs** shows that there are firms which do not report any spending on R&D. But, their declarations suggest that they are engaged in activities of technology development.
- A quick search in both the DSIR directory of recognised R&D units (2021) and Prowess shows that some of the leading Indian enterprises in new technology areas and foreign R&D centres are not covered.

#### **Way forward:**

- Transforming India's R&D statistics to truly reflect the R&D ecosystem calls for short-term and medium-term measures.
- In the **short term, the NSTMIS should use the patents granted data**, both in India and the U.S., in addition to its current method to identify R&D performing enterprises.
- Annual R&D estimates can be prepared from **mandatory disclosures** that the enterprises are required to make to the MCA.
- In order to ensure compliance and proper reporting, **technologies can be used** like in the case of revamped income-tax return forms where various sections are interlinked.
- Proper disclosure of information to regulatory agencies, including R&D spending data, should be made an essential component of the environmental, **social and governance (ESG) ranking of enterprises**.

## 6. India Can Become a Biodiversity Champion

Biodiversity is essential to the future of this planet. The importance of our planet's biodiversity was strongly articulated at the **United Nations Biodiversity Conference in Montreal**.

- Representatives of 188 countries adopted an agreement to **"halt and reverse"** biodiversity loss by conserving 30% of the world's land and 30% of the world's oceans by 2030, known as the **30×30 pledge**.
- India has **17% of the planet's human population and 17% of the global area** in biodiversity hotspots, making it a strong contender to guide the planet in becoming biodiversity champions.

**Different programmes launched by the Indian government for preserving biodiversity:**

- Union Budget 2023 mentioned **"Green Growth"** as one of the seven priorities

The **National Mission for a Green India** aims to increase forest cover on degraded lands and protect existing forested lands.

The **Green Credit Programme** has the objective to incentivize environmentally sustainable and responsive actions by companies, individuals and local bodies.

The **Mangrove Initiative for Shoreline Habitats & Tangible Incomes (MISHTI)** is particularly significant because of the extraordinary importance of mangroves and coastal ecosystems in mitigating climate change.

The **Prime Minister Programme for Restoration, Awareness, Nourishment, and Amelioration of Mother Earth (PMPRANAM)** for reducing inputs of synthetic fertilisers and pesticides is critical for sustaining our agriculture.

The **Amrit Dharohar scheme** is expected to encourage optimal use of wetlands, and enhance biodiversity, carbon stock, ecotourism opportunities and income generation for local communities.

- **Evidence-based implementation:** It is critical not only for the success of these efforts but also for the documentation of **lessons learnt** for replication.
- **New programmes:** Should effectively use modern concepts of **sustainability and valuation of ecosystems** that consider **ecological-cultural-sociological aspects of our biological wealth**.
- **Reduction in water use in key sectors:** Such as agriculture by encouraging –
  - Changes to less-water-intensive crops such as millet
  - Investments in water recycling in urban areas using a combination of grey and blue-green infrastructure.
- **Ecological restoration rather than tree plantation:** As far as the Green India Mission is concerned, choosing sites to ensure **ecological connectivity in landscapes** fragmented by linear infrastructure.
- **Local community involvement:** Traditional knowledge and practices of these communities (local and nomadic) should be integrated into the implementation plans.
- **Each programme should include significant educational/research funding:** To critically appraise and bring awareness to India's biological wealth.

## 7. Lithium: Reserves, Applications and Significance

The Geological Survey of India (GSI) has established **"inferred" lithium resources of 5.9 million tonnes in the Salal-Haimana area of the Reasi District of Jammu and Kashmir**. These resources have been established as

part of the “Reasi Sersandu-Kherikot-Rahotkot-Darabi” mineral block, where prospecting has been ongoing since 2021-22.

#### **LITHIUM:**

It is a **delicate, white-silver alkali metal**.

It is the least dense metal and the least dense solid element under typical conditions.

As with all alkali metals, Li must be stored under a vacuum, in an inert atmosphere, or an inert liquid such as mineral oil or pure kerosene.

It never occurs freely in nature, but only in (usually ionic) compounds, such as **pegmatitic minerals**, which were once the main source of Li.

Due to its solubility as an ion, it is present in ocean water and is commonly obtained from brines.

#### **Applications of Li metal**

- **Lithium-ion batteries** do not just make for better electronic devices, but also allow for the storage of significant amounts of energy from renewable sources, such as **solar and wind**.
- **Pharmaceuticals:** It is used as a **mood stabilizer in the treatment of the bipolar disorder, depression**, and other mental health conditions.
- **Glass and Ceramics:** It is used in the **production of special glass and ceramics**, as it helps to reduce the melting temperature of these materials.
- **Aerospace and Military:** It is used in the **aerospace and military industries** to cool the temperature-sensitive components in space vehicles and military equipment, such as radar systems and missile guidance systems.
- **Lubrication:** It is used as an ingredient in **high-temperature lubricating greases**, due to its ability to withstand high temperatures and provide long-lasting lubrication.

#### **Side-effects of lithium mining:**

- For a tonne of lithium, up to **2 million liters of water are required**. The majority of this is **lost in evaporation**.
- Increases Carbon Dioxide Emissions
- Depletes Fertile Land
- Causes Respiratory Problems
- Produces Massive Mining Wastes

#### **Significance and issues with lithium discovery:**

BENEFITS	ISSUES
<p>The latest finding of lithium reserves in J&amp;K does come in as a new lease of life as it furthers <b>India's desire to become self-sufficient</b> in its energy storage needs.</p> <p>Lithium is one of the key components of <b>Li-ion batteries</b> and taking into consideration the financial impact of obtaining Lithium, the new discovery is significant.</p> <p>The recent discovery of this sizable lithium deposit in India may be able to assist the nation in supplying <b>its expanding domestic metal demand</b>, which has been driven up recently by the popularity of electronic gadgets</p> <p><b>Increase in exports:</b> The finding of this significant lithium deposit in India may help the nation become a <b>significant player in the global lithium market</b> in addition to satisfying domestic demand.</p> <p><b>Push for India's Clean Energy targets:</b> Lithium is a key component in batteries for electric vehicles and renewable energy storage systems</p>	<p><b>Geopolitical concerns:</b> Union territory of J&amp;K has been the <b>site of historical cross-border tensions</b> between India and Pakistan, domestic insurgency, and terrorism.</p> <p><b>Environmental consequences:</b> Extracting Li from hard rock mines, entails <b>open-pit-mining followed by roasting the ore using fossil fuels</b>.</p> <p><b>Air &amp; water pollution:</b> <b>Open-pit-mining, refining, and waste disposal</b> from these processes substantially <b>degrades the environment, including depletes and contaminates waterways and groundwater, diminishes biodiversity, and releases considerable air pollution</b>.</p> <p><b>Geographically unstable region:</b> The geological context of <b>mining in J&amp;K differs from Australia</b>, which has the largest Li stock.</p>

### Way forward

- Lithium has been dubbed “**white gold**” for its widespread usage in items indispensable to modern-day living.
- The world's lithium supply can barely keep up with its demand. A report from the International Energy Agency says that the world could face **lithium shortages by 2025**.
- **Lithium, nickel, and cobalt** are just a few of the minerals that India now imports to satisfy its demand.
- India is making audacious moves to establish itself as a rival in the electric vehicle supply chain as the globe works to wean itself off its reliance on China for essential battery materials. Therefore, it is anticipated that the government's aspirations to enter the EV market will receive a major boost from the discovery of lithium inferred resources of 5.9 million tonnes in Jammu and Kashmir.



## 8. The Economic Survey that wasn't

The **Budget of 1991** which was presented by the then Finance Minister, is one of Indian economic history's landmark events.

- It marked a **structural shift in India's economy away from the hands of the government to the hands of private enterprise**, and embraced free trade.
- Three decades later, many developed economies, including America, Britain, and Germany, are now reversing course to **economic nationalism** and increasing the role of government in their economy
- This is a profound shift in economic thought and perhaps the greatest symbolic victory for China's economic model that has forced the **'Washington Consensus' champions to back-peda**.

### Economic Survey:

It is a detailed report of the state of the national economy in the financial year that is coming to a close.

The **Economic Survey of India** is an annual document released by the **Ministry of Finance**.

It contains the **authoritative and updated source of data on India's economy**.

The government presents the **state of the economy in the past one year**, the key challenges it anticipates, and their possible solutions.

It is prepared by the **Economics Division of the Department of Economic Affairs (DEA)** under the guidance of the Chief Economic Advisor.

Presented a day before the Union Budget is presented in the Parliament.

The **first Economic Survey in India** was presented in the year **1950-51**. Up to 1964, it was presented along with the Union Budget.

From 1964 onwards, it has been delinked from the Budget.

### What are the positives from the Economic survey 2022-23?

- Recovery from the pandemic-induced disruption is complete and the **"GDP growth will probably lie in the range of 6.0% to 6.8%."**
- This is due to
  - a) a **rebound in private consumption aided by a release of "pent-up" demand**,
  - b) a **surge in exports in the initial months of 2022-23**, and
  - c) the increase in **government capital expenditure**,
- Provided some **new data which increases transparency**, such as on the housing market, digital infrastructure, etc
- **Widened its coverage**, with detailed chapters on climate change and the social sector
- Places India's economic story in a **global context with realism**.
- India is entering a **new era of growth**, where its citizens can look forward to a better quality of life with better-equipped schools, affordable healthcare, and increased formal employment opportunities and
- It highlights the **continuity of reforms in India**. It compares the reform story of the last eight years to the 1998-2002 period. Such as "creating public goods, fostering trust-based governance, and the recent **introduction of the Jan Vishwas Bill**".

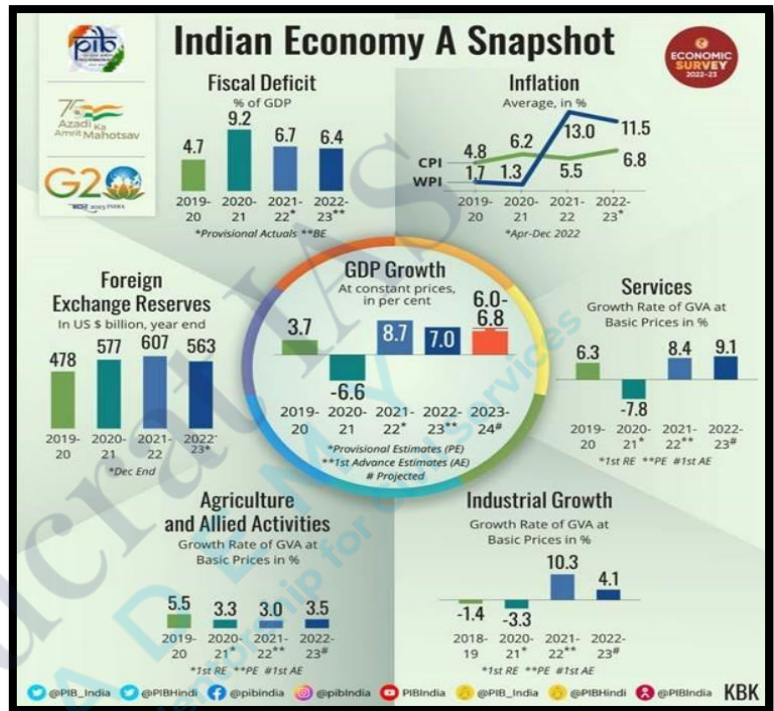
### What are the challenges highlighted by the Economic Survey 2022-23?

- pointed out that the 'Make in India' and manufacturing gross value added (**GVA**) **grew only at 4% (real)** even before the pandemic hit,

- Growth in private consumption has come at the cost of **decreasing household financial savings**,
- The economy has seen a **K-shaped recovery**,
- There is huge **disguised unemployment** in agriculture,
- Reforms since 2014 have not resulted in higher growth so far because of one shock after another
- **Balance-sheet stress** in both the corporate and the banking sectors after the financial crisis will affect growth outcomes

**Major recommendations highlighted by the Economic Survey 2022-23:**

- **Capital expenditure must grow** to facilitate employment despite fiscal deficit limitations
- The private sector has all the necessary pre-conditions lined up to step up. So, they need to increase **private capex spending**,
- **Reforms** such as **goods and services tax and the Insolvency and Bankruptcy Code** need more work to perform as desired,
- The money should be spent on **creating assets** that would boost future productivity, instead of on current consumption
- Highlighted the need to harness **Nari Shakti (women power), education and skilling**,
- There was a need to **dismantle LIC** – license, inspection and compliance Provide affordable, reliable and viable power supply and Ensure energy security and energy transition for India to fully realize its potential.



9. Solar Energy is Not the Best Option For India

External pressure is pushing India more and more into the so-called **carbon-limiting renewable energy path**, along with a simple understanding that **solar energy is a free gift from the sun**, has encouraged over-reliance on solar energy in the country. **But the solar energy is not the best option for India and it is better off just relying on large hydro and coal.**

**PM Modi's 10-point action plan to promote solar power**

Prime Minister Narendra Modi on Sunday listed out 10 action points at the founding conference of the International Solar Alliance, to bring about a solar revolution worldwide. They include:

- ▶ Ensuring that cheap and improved solar technology is easily available
- ▶ Increasing the percentage of solar energy in countries' national energy mix
- ▶ Encouraging innovation for development of solutions to problems/challenges
- ▶ Ensuring concessional and risk-free funding for solar projects
- ▶ Developing regulatory aspects and norms to speed up adoption of solar technologies, solutions
- ▶ Consultancy support for bankable solar projects in developing nations
- ▶ Ensuring efforts to propagate solar revolution stress on partnerships and assimilation
- ▶ Ensuring creation of a network of centres of excellence that takes into account local circumstances and factors
- ▶ Ensuring solar energy policies are seen in the context of development that will help in achieving Sustainable Development Goals.
- ▶ Making the ISA secretariat a strong and professional body

**SOLAR ENERGY:**

- **India, being a tropical country** is endowed with plenty of solar energy; hence, **exploitation of solar energy becomes an important component of renewable energy sector**
- **About 5,000 trillion kWh per year energy** is incident over India's land area with most parts **receiving 4-7 kWh per sq. m per day**
- **Karnataka leads** India's list of states producing solar energy, with a total installed solar power capacity of about **7,100MW**; followed by **Telangana, Rajasthan, Andhra Pradesh and Gujarat**
- **India is fourth-largest solar** power producer in the world
- **International Solar Alliance:** In pursuance to enhance Solar Energy production, India along with France launched the International Solar Alliance with the aim to promote solar energy in **121 member countries** and to mobilize **over \$1 trillion of investment** for the deployment of solar energy at affordable costs.
- **100 GW target:** The target set by India for installed solar energy capacity is **100 GW by March 2023 — 40 GW rooftop solar and 60 GW ground-mounted utility scale.**

#### **Misconceptions:**

- **Wrong comparison:** The first flaw is the wrong comparison of solar power with coal electricity at the load centre, instead of at the pithed, which costs about half that of the load centre.
- **Not comparing like with like:** Solar electricity is **intermittent and coal electricity is continuous**. So, you have to add the cost of storage by battery.
- **The shadow price** or true economic value of coal is even lower than its market price, since **the cost of labor in mining carries a shadow price of zero** (they being unskilled workers who would be unemployed otherwise)
- **Cost of production for solar and coal energy:**
- Solar energy is made financially viable by misguiding the people by leaving out storage battery cost; handicapping it with subsidies and concessions that are front loaded by the government, and forcing it on the industry and hapless discoms through state policy.
- That this is thrust down the throats of client discoms and industry is clear from the slow progress so far, the programme missing its target by 40%-50%, and discoms renege on their 25-year power purchase agreements, on seeing lower and lower prices in later bids for others.

#### **Potential in Hydropower:**

- We can do more renewable energy in large hydro, which is **both low carbon and least cost**.
- India has utilised only **about 15% of its hydro potential whereas the U.S. and Europe have utilised 90% and 98%** of their potential, respectively.
- The extent of utilisation of hydro potential seems to be an index of **civilisational development and evolution**.
- While **China relies on renewable energy, it banks more on coal and hydro**. The Three Gorges project on the Yangtze is the world's biggest hydroelectric project.
- In India, powerful environmentalists stop large hydro projects in their tracks.
- One major reason for the **sickness in the power sector is due to the focus on renewable energy in a big way**.

#### **Conclusion:**

- **India has a high potential in the solar energy sector**, but there are also other cleaner options available that are also cost-effective.
- While **India should continue to expand its economy on the back of renewable energy**, the Government must take a hard look at whether renewable power, the solar, wind, or nuclear, meets standards of economic viability and environmental sustainability.



- **Solar power may be a valuable tool in India's energy transformation story**, but it cannot be the panacea for every need.
- India should pay equal attention to other clean and reliable options, such as **hydroelectric energy**, to diversify its energy mix and reduce its over reliance on solar energy.

## 10. An Embattled Green

- The **Joshimath crisis** has led to conversations on the **relevance of hydropower in the Himalayan region**.
- Though **hydropower is considered a clean source of energy**, it does **have huge environmental and social costs** that must be considered while planning them.

### Hydropower:

- **Hydroelectricity is a renewable energy source** that uses the potential energy of the water stored in the dams, reservoirs, flowing rivers etc.
- **The falling or flowing water** rotates the turbine which spins a generator and the mechanical energy of the generator is converted to electric energy and hence the electricity is generated from the water
- **Hydroelectricity** accounts for about **17%** of the total electricity sources worldwide.
- **Hydropower is considered green energy** because it generates electricity from the natural flow of water without releasing any emissions or pollutants.
- It also does not rely on fossil fuels.

### The cost of hydropower:

- The construction of dams can **disrupt the flow of rivers**, leading to changes in water temperature and chemistry.
- It can also cause **erosion, landslides, and sedimentation** which can have a negative impact on the local environment.
- Dams also disrupt the **migration patterns of fish** and other aquatic species and impact the local wildlife, particularly if the dam's construction leads to habitat loss.
- Large-scale hydroelectric **dams displace local communities**, affecting their livelihoods and cultural heritage and impacting the overall well-being of the local population.

### Solution lies in Micro hydro systems:

- **Micro hydro is a small-scale hydroelectric power generation system** that typically generates up to 100 kilowatts (kW) of electricity.
- These systems use the **energy of falling water to turn a turbine**, which, in turn, generates electricity.
- They can be used for various applications, including **powering homes, businesses, and small communities**.
- They have a **smaller environmental footprint**.
- They can be **located even in inaccessible areas** where it is difficult to transmit electricity from larger power stations, and they can provide a reliable source of energy to communities that are not connected to the grid.
- Micro hydro systems can be classified into two main types: **run-of-river and storage systems**.
- Run-of-river systems use the natural flow of water in a stream or river to generate electricity.
- In contrast, storage systems use a reservoir to store water and release it as needed to generate electricity.

### Way Forward:

- **The recent Joshimath crisis in the Himalaya** necessitates a relook at the present development model. The Micro hydro systems can be a viable solution.
- However, it's important to note that even micro-hydropower projects can have some impact on the environment and local communities.

- A detailed assessment should be carried out to evaluate the potential impact before proceeding with the project.

## GS4

### 1. Integrity And Its Difference With Honesty

**Honesty is defined as "truthfulness,"** or the absence of deception and fraud, as well as fair and straightforward behaviour.

- The difference between honesty and integrity is that **honesty simply refers to telling the truth**, whereas **integrity refers to having a strong moral character and adhering to a set of strict ethics and principles.**
- **Honesty** is a **virtue**, but the requirements for honesty are less stringent than those for integrity.
- For example, a person could sell a product that hasn't been thoroughly tested on the basis that it hasn't been proven to be dangerous.
- However, in order to act with integrity, one must either:
- Inform the customer that the product has not been tested.
- If there's a chance the product could harm the customer, don't sell it at all.

#### **WHY INTEGRITY IS ESSENTIAL FOR A CIVIL SERVANT?**

- A highly skilled officer who lacks integrity will always use his skill to benefit himself rather than the public good.
- **Only with integrity can officers deliver justice and build a welfare state.**
- If civil servants lack integrity and accountability, the quality of government will suffer.
- People's faith in the government and administration may be eroded as a result



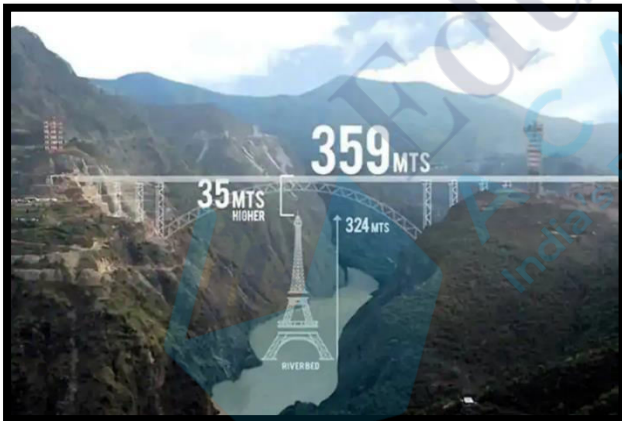
## Places in News

### 1) Rishikesh-Karnprayag Rail Line Project

- It is an under-construction 125km railway line, which will run **from Yog Nagari Rishikesh railway station in Rishikesh to Karnaprayag in Uttarakhand.**
- It will help **improve connectivity to the Char Dham shrines of Yamunotri, Gangotri, Badrinath, and Kedarnath** in the Garhwal region of the Himalayas in Uttarakhand.
- The project is being monitored on the **Government of India's PRAGATI (Pro-Active Governance and Timely Implementation) portal.**

### 2) Chenab railway bridge:

- Also known as the **Chenab Arch Bridge**, it is a concrete arch bridge being built over the **Chenab River in the Reasi district of Jammu and Kashmir.**
- It will be the **highest railway bridge in the world**, with a height of 359 meters above the riverbed.
- It is designed to withstand **Zone-V earthquakes, 266 Km/hr wind speed**, and high-intensity blasts.



### 3) Bokang-Baling Hydroelectric Project:

- It is a proposed hydroelectric project on river **Dhauliganga in the Pithoragarh district in Uttarakhand.**
- It has a **proposed installed capacity of 165 MW.**
- The project involves the construction of a concrete gravity dam of 65 m from river bed level and an underground Power House.
- The project is being implemented by **THDC India Limited.**

### 4) Rajgad Fort:

- Also known as the **Ruling Fort**, it was the capital of the Maratha Empire under the rule of **Chhatrapati Shivaji Maharaj** for almost 26 years.
- It is a hill fort situated in the **Pune district of Maharashtra.**
- It is located in the **Sahyadri mountain ranges** at an elevation of 1,395 meters above sea level.
- It comprises **three terraces (machis) and a citadel (Balekilla).**
- There are four gates called **Gunjavane, Pali, Alu, and Kaleshwari or Dindi gate.**
- Rajgad boasts the highest number of days stayed by Chhatrapati Shivaji Maharaj on any fort.

### 5) Valmiki Tiger Reserve (VTR): Located in Bihar, it forms the easternmost limit of the Himalayan Terai forests in India,

- It is the **only tiger reserve of Bihar** which is situated in the Gangetic Plains bio-geographic zone of the country,
- The forest of this region has a combination of **bhabar and terai tracts.**
- Rivers Gandak (west of VTR), Pandai, Manor, Harha, Masan and Bhapsa flow through various parts of the reserve.
- **Flora:** The vegetation types include mainly Moist mixed deciduous.

### 6) Debrigarh Tiger Reserve:

- Located near the **Hirakud dam at Sambalpur**, It will become the **third tiger reserve in Odisha** after Similipal and Satkosia.
- It finds a special mention because of noted freedom fighter veer Surendra sai. During his rebellion against the British Veer SurendraSai made his base at "Barapathara" located within the sanctuary.

### 7) Gorakhpur Nuclear Power Plant:

- The Government is going to set up **north India's first nuclear plant in Haryana.**
- It will have **two units of 700 MWe capacity** each of Pressurised Heavy Water Reactor (PHWR) indigenous design.

8) **Thwaites Glacier:** Nicknamed the “**Doomsday glacier,**” it is a fast-moving glacier in West Antarctica.

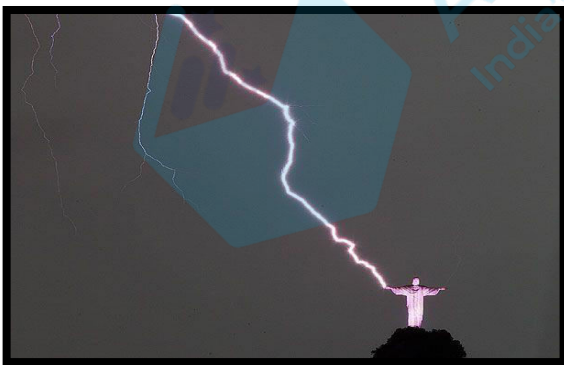
- It covers an area roughly the **size of Great Britain.**
- The glacier is rapidly losing ice to the ocean in response to climate change and changes in ocean circulation. It loses more than **50 billion tons of ice** to the ocean yearly, contributing to about 4% of the annual sea level rise.

9) **Gaziantep castle:**

- It is located on a hilltop in **southern Turkey’s city of Gaziantep.**
- It is a **UNESCO World Heritage site.**
- It was **first built by the Hittite Empire** as an observation point and later built into a main castle by the Roman Empire in the 2nd and 3rd century AD.
- The castle has the shape of an **irregular circle.**

10) **Christ the Redeemer statue:** It is located at the summit of **Mount Corcovado, Rio de Janeiro, southeastern Brazil.**

- It depicts **Christ standing with his arms crossed** and looking at the city.
- It was completed in **1931** and stands 98 feet (30 metres) tall.
- It is made of reinforced concrete and is the **largest Art Deco-style sculpture in the world.**



11) **Saptakoteswar Temple:**

- Saptakoteswar is a temple dedicated to **Lord Shiva** located in Narve village of Goa. It was built in 12th century by **Kadamba dynasty ruler Shivchitta Paramardidev.**
- The temple has a small entrance marked by bells, while the five-pillared main hall is decorated with arches. The wall of its sanctorum is made of plain wood.
- The mandapa of the temple is built in a typical European style and Brahminical laterite and stone caves surround the temple.
- This temple was destroyed after the conquest of Goa by the Portuguese, although the temple was rebuilt by Shivaji after the victory over the Portuguese in 1668 AD.

12) **Keoladeo National Park:**

- The Keoladeo National Park formerly known as the **Bharatpur Bird Sanctuary** hosts thousands of birds, especially during the winter season. It is located in the eastern part of Rajasthan.
- It is strategically located in the middle of the **Central Asian migratory flyway.**
- It is a **Ramsar site and also a UNESCO World Heritage Site.**

13) **Andes Mountains:**

- The Andes is the **longest above-water mountain range** in the world.
- The Andes Mountains extend over **seven countries:** Argentina (Mount Aconcagua), Bolivia (Huayna Potosi), Chile, Colombia, Ecuador, Peru, and Venezuela, known as Andean States.
- It is about 5,500 miles (8,900 km) long and second only to the Himalayas in average elevation.
- The highest elevation in the Andes is **Mount Aconcagua in Argentina**, which is 22,841 feet (6,962 m) above sea level.
- The Andes are also home to the **world’s highest volcano** when measured above sea level, the Ojos del Salado on the Chile-Argentina border.

## Edufacts

### 1<sup>st</sup> February

#### Economic Survey reports:

- 1) Budgetary allocation for **education** as a percentage of total expenditure has **dropped from 10.4% to 9.5%**.
- 2) UPI accounted for **52% of all digital transactions**
- 3) Almost half of all health spending is still paid by patients themselves even though out of pocket expenditure has dropped from **64% in 2013-14 to 48.2% in 2018-19**.
- 4) India's total health expenditure was 3.2% of GDP in 2018-19.
- 5) India ranks **3rd** worldwide in terms of **production of pharma by volume and 14th by value**.
- 6) India was the **largest producer of generic medicines globally** having a 20% share in global supply by volume.
- 7) Government's fiscal deficit touched 59.8% of the full year Budget Estimate.
- 8) **India's GDP will grow 6.5% in 2023-24**, compared to 7% in 2022-23 and 8.7% in 2021-22- the slowest in 3 years
- 9) Year on Year decline in MGNREGS work is emanating from the normalization of rural economy due to strong agricultural growth and swift bounce back from covid 19.
- 10) Despite layoffs, **number of direct jobs created by Indian start ups rose 36%**.
- 11) **Headline inflation projected at 6.8%**, outside the comfort zone of 2%-6%.
- 12) **India will remain the fastest growing major economy in the world.**

### 3rd February

- 1) **Defence budget rises 13%**- capital expenditure for modernisation of military jumps 6.7%
- 2) **Department of Space gets 8% less than previous year**- biggest cut is for space technology under Central Sector schemes.
- 3) **The allocation for Semi conductor laboratory, an autonomous body**, has gone to zero since the facility has been moved out from Department of Space as part of India Semiconductor Mission
- 4) **MGNREGS fund cut by 33%**- activists accuse the centre of "killing the law"
- 5) Government to set up **100 5G labs** to develop new apps.
- 6) **Protection under Domestic Violence Act** not available to male member- Delhi High Court
- 7) **Odisha has the highest number of Particularly Vulnerable Tribal Groups (PVTG)** while Punjab and Haryana have none.
- 8) Handed it's highest ever allocation of 2.4 lakh Cr, Railways plans more lines, Vande Bharat factories.
- 9) Over the next 3 years, focus will be to facilitate **1Cr farmers to adopt natural farming for which 10000 Bio input resource centre** will be set up.

### 7th February

- 1) The Supreme Court **got 5 new judges increasing it's strength to 32 out of 34 sanctioned seats**
- 2) Rajasthan plans zoo construction inside **Keoladeo National Park, a world heritage site**, popularly known as Bharatpur bird sanctuary.
- 3) PM unveils **India's largest chopper unit HAL** helicopter factory in Karnataka.
- 4) Over 2600 killed as a 7.8 magnitude earthquake hits Turkey and Syria
- 5) **A white tiger has a lifespan of 12-14 years in the wild**- they are a pigmentation variant of Bengal tiger.

6) Rajasthan's open prison, with inmates staying on community land without walls or strict surveillance, transforms lives of inmates.

7) Investments made in the aerospace sector in the past 8-9 years is **5 times the investment made before 2015- PM**

#### 8th February

1) Left wing extremism related violence down by **76% in 2022** and number of districts affected declined from 90-45: Home minister

2) **3 pronged strategy used to curb LWE**: curbing violence, better coordination among affected states and public participation

3) **Virginity test unconstitutional**, archaic even on accused: Delhi HC

4) **India is the largest producer and second largest exporter of millets**

#### 9th February

1) Animal Welfare Board of India wants to name **February 14 as 'Cow hug day'**- appealed public to embrace cows

2) MPC has raised the benchmark lending rate by 25bps to 6.5%

3) Constitution **does not allow nominated members of a municipality the right to vote in meetings**- SC

4) As on date, **Amravati** is the **capital** of Andhra Pradesh: Home ministry

5) **People in India** (around 15 million) are at the highest risk of **flooding from glacial lakes**

6) **6775 URLs blocked in 2022 under Information Technology** (Procedure and Safeguards for blocking's for access of Information for Public) Rules 2009- Meity  
The previous highest was 9849 in 2020.

#### 10th February

1) A 7km underwater tunnel to be built for bullet train project in **Maharashtra's Thane creek**

2) India to be the **4th country** (after Gaganyaan) to have human space flight capability after US, Russia and China

3) **5th Regional dialogue on Afghanistan held in Moscow and attended by Iran, China and Central Asian countries**

#### 13th February

1) The 14th edition of biennial Aero India being conducted in **Bengaluru**, sees participation of 98 nations

2) **New Zealand PM** asks citizens to be prepared for **Cyclone Gabrielle**

3) **Uttar Pradesh**, despite being the most populous state in the country, is **the 5th largest economy in India**

4) Former SC judge among **6 new governors appointed by President**

#### 14th February

1) **Saudi Arabia** to send its **first woman astronaut** to space in AX-2 Space mission.

2) **Top 5 states** with most custodial deaths in 5 years-**Gujarat (80), Maharashtra, UP, Tamil Nadu and Bihar.**

3) Not even a single ordinance was bought in by the government last year-PRS legislative research.

4) India being **the largest defence importer for decades**, has set a target to increase defence exports from \$1.5bn to \$5bn by 2024-25-PM.

5) Only **Gujarat, Goa, Telangana and Haryana** have 100% coverage of eligible households with piped water- **Jal Jeevan Mission dashboard.**

6) The term Akashvani for AIR was christened by Rabindranath Tagore.

#### 16th February

1) **5 southern states-** Telangana, Andhra Pradesh, Karnataka, Kerala, TN-accounted for 93% of off budget liabilities of 11 major states analysed-CAG report.

2) A record **75% of the defence capital procurement budget has been earmarked for domestic industry** in 2023-24, up from 68% last year

3) First **G20 culture meet to be held in Khajuraho, MP.**

4) **75% of MSME's stagnant since past 5 years:** survey by Consortium of Indian Associations.

5) Current account deficit for the 1st half of 2022-23 stood at 3.3% of GDP.

6) EU to ban **gas powered cars by 2035.**

7) Centre aims to double **seafood exports to \$14 bn by 2025.**

#### 21st February

1) In **Bihar and West Bengal**, the share of women marrying before 18 years of age was **40% in 2019-21.**

2) The Cabinet Committee on Appointments has **appointed B.V.R Subrahmanyam as the CEO of NITI Aayog.**

3) Only Parliament can amend the law to provide a **uniform marriage age: SC.**

4) Funds sent abroad by students under RBI's Liberalised Remittance Scheme fall by over 42% in first 9 months of FY23.

5) Turkey, Syria rocked by another quake of 6.3 magnitude.

6) **HDFC raises 25k Cr in India's largest ever private bond issue.**

#### 22nd February

1) Russia suspends the **last remaining major nuclear treaty- New Start Treaty-with the US**

2) Speaker is deciding authority to rule under **anti defection law: SC**

3) CAPF facing 83k vacancies.

4) **Kerala, Tamil Nadu and Karnataka** to organise the 1st synchronised vulture survey

5) **Australia** to host its **1st Malabar Naval drill** consisting of India, USA and Japan

6) Children have the **right to protect their genetic data.** DNA testing to be used as last resort in divorce proceedings to establish infidelity: SC

#### 23rd February

1) **Kolkata's journey** to being **medical hub of Southeast Asia** has begun

2) **6 years should be the minimum age of admission to class 1:** Ministry of Education

3) **Seattle becomes the 1st city in US** to ban caste discrimination.

4) Workers who possess advanced digital skills can boost India's GDP by \$507 billion.

5) UP target \$1 trillion economy with its biggest ever budget

#### 24th February

1) 60% of Indian voters linked Aadhar to voter id.

**Tripura had the highest linkage with 92%: RTI**

2) NSE gets final nod from SEBI for Social Stock Exchange

3) Over 5 lakh patients benefitted from OR code based registration under **Ayushman Bharat Digital Mission**

4) **Karnataka lost Rs 99 lakh daily to cybercrime in 2022.**

#### 25th February

1) FATF suspends membership of Russia over Ukraine invasion

2) **MGNREGS:** Over 40% of gram panchayat do not report **digital attendance on National Mobile Monitoring System.**

3) It's centre's call, says SC on **menstrual leave** policy.

**28th February**

1) **95% of politicians under CBI's** scanner since 2014 are from opposition.

2) Top onion producing states; **Maharashtra (40%), Madhya Pradesh, Karnataka, Gujarat.**

3) India tops list with 84 internet shutdowns for the 5th year.

4) **e sanjeevani** has benefitted 10 Cr people





## Prelims Booster- The Hindu & Indian Express

1<sup>st</sup> Feb

1) **MISHTI Scheme:** Mangrove Initiative for Shoreline Habitats & Tangible Incomes scheme

- Launched in **2023**, the main aim of the scheme is to take **up mangrove plantations along the coastline**. It is to be implemented by converging **CAMPA Fund, MGNREGS**, and other sources.
- The Mangroves cover 0.15% of the total Indian Geographical area. The state of **West Bengal alone has 42.45% of India's mangroves**.

2) **World Economic Outlook:** It is a survey by the **IMF** that is usually published twice a year in the months of **April and October**.

- It analyzes and **predicts global economic developments** during the near and medium term.
- Key takeaways of WEO update: **Global Growth will Bottom Out:** The global growth, which was estimated at 3.4% in 2022, is now projected to fall to 2.9% in 2023 before rising to 3.1% in 2024. The IMF effectively rules out a global recession.

3) **iCET: Initiative on Critical and Emerging Technologies:** The iCET initiative was launched by **India and the US in May 2022**, and is being run by the **National Security Councils of both countries**.

- Under iCET, the both countries have identified **six areas of cooperation** which would include co-development and co-production, that would gradually be expanded to **QUAD, then to NATO, followed by Europe and the rest of the world**.
- The six areas for cooperation are **scientific research and development; quantum and artificial intelligence, defense innovation, space, advanced telecom** which would include things like **6G and semiconductors**.

4) **ANDHRA PRADESH NEW CAPITAL:** **Visakhapatnam** (also known as Vizag) will be the new **capital of the State**. The state needs a new capital since Hyderabad, **the capital of undivided Andhra Pradesh is now part of Telangana**, and at present, the two states are sharing the capital temporarily.

- Andhra envisages development of 3 capitals for the state;

- **Amaravati as the state legislative capital, Visakhapatnam as the state executive capital and Kurnool as the state judicial capital.**
- **Visakhapatnam** is the **largest** and most populous city in **Andhra Pradesh**.
- The city serves as the **headquarters** for the **Indian Navy's Eastern Naval Command**.
- It is also known as the **"City of Destiny"** and the **"Jewel of the East Coast"**.
- Visakhapatnam Port is deepest port of India

5) **Municipal Bonds:** Municipal Bonds or muni bond is a **debt instrument issued by Municipal Corporations** or associated bodies in India to finance **socio-economic development projects**.

- It was first issued in the **1997 by Bangalore local body** for infrastructure development
- Municipal bonds are **exempted from tax** provided the buyer adheres to the rules laid by the municipal corporations. **The interest is also exempted from taxes.**
- **SEBI Guidelines:** The municipal body should not have a history of defaulting at repayments of loans or debt instruments acquired from financial institutions in the past year.
- It should possess a **positive net worth in all the three years** preceding the issuance of municipal bonds.
- Such municipal entity, its Group Company or directors, and promoters shall not be mentioned in the wilful defaulters' list published by the Reserve Bank of India.

2<sup>nd</sup> Feb

1) **Mahila Samman Saving Certificate Scheme:** The scheme offers deposit facility up to **Rs 2 lakh** in the name of **women or girls for a tenor of 2 years**. It offers fixed interest rate of **7.5 per cent**.

- There are **no tax benefits, but partial withdrawal is allowed in this scheme**.
- This is a **one-time scheme announced in Budget 2023** and will remain available for a **two-year period i.e. up to March 2025**.

2) **Vivad Se Vishwas Scheme:** Started in **2022**, it provides for settlement of **disputed tax, disputed interest, disputed penalty or disputed fees** in relation to an assessment or reassessment order.

- The dispute is settled on **payment of 100% of the disputed tax and 25% of the disputed penalty or interest or fee.**
- The taxpayer is granted **immunity from levy of interest**, penalty and institution of any proceeding for prosecution for any offence under the **Income-tax Act** in respect of matters covered in the declaration.
- Disputes related to **wealth, securities transaction, commodities transaction tax**, and the equalisation levy are not covered under the scheme
- **The Central Board of Direct Taxes (CBDT) has settled tax disputes in more than 133,000 pleas made under the Vivad Se Vishwas scheme.**

3) **Urban Infrastructure Development Fund (UIDF):** The government will set up **UIDF of Rs 10,000 crore per year for creating infrastructure in Tier-2 and Tier-3 cities.** The fund would be established through the use of priority sector lending shortfall. It will be managed by the **National Housing Bank.**

- Cities having a population between **50,000 and 1,00,000** are classified as **tier-2 cities** while those with a population of **20,000 to 50,000** are known as **tier-3 cities.**

4) **National Digital Library:** Ministry of Education under its National Mission on Education through Information and Communication Technology has initiated the National Digital Library (NDL) project to develop a framework of **virtual repository of learning resources with a single-window search facility. It is being developed at IIT Kharagpur**

- NDL is the **Single Window Platform that collects and collates metadata from premier learning institutions in India and abroad**, as well as other relevant sources.
- It makes **quality learning resources available to all learners** and has 1.7 Crore content from more than 160 sources, in **over 200 languages.**

5) **PM-VIKAS:** The newly-conceptualised **Pradhan Mantri Vishwakarma Kaushal Samman (PM-VIKAS) scheme in budget 2023-24**, will enable the country's artisans to improve the **quality, scale, and reach of their products**, integrating them with the Micro, Small and Medium-scale Enterprises (MSME) value chain

- Some of the primary factors of the **Pradhan Mantri Vishwakarma Kaushal Samman** are:
- **Financial aid, Advanced skill training, Access to the latest technology, Integration into the**

**MSMEs, Paperless payments**, Wider reach and introduction to a global market

- The initiative has been taken by **Ministry of Minority Affairs** and will benefit around 60 castes which are recognised as **Vishwakarma.**

### 3<sup>rd</sup> Feb

1) **Red Sanders:** It is a **flora species** that are endemic to a distinct tract of forests in the **Eastern Ghats region of Andhra Pradesh.** It usually grows in **rocky, degraded and fallow lands with Red Soil and a hot and dry climate.**

- **IUCN Red List: Endangered, CITES: Appendix II, Wildlife (Protection) Act 1972: Schedule IV**
- They are high in demand across Asia, particularly in **China and Japan**, for use in **cosmetics and medicinal products** as well as for making furniture, woodcraft and musical instruments.

2) **ANGEL TAX:** Indian start-ups that offer their shares to foreign investors, may have to pay **'angel tax'.** Earlier, it was only supposed to be paid for investments raised by resident Indian investors.

- For this, **Finance Bill, 2023, has proposed to amend Section 56(2) VII B of the Income Tax.**
- Angel Investors are **High Net worth Individuals** that provide seeding capital or initial capital to a start-up entity to earn healthy profit once start-ups come into operations.
- Angel tax is **levied on start-ups when they receive investments in excess of their 'fair market value'.** The perceived profit is considered as income from other sources—it's taxed at 30% and termed as angel tax. The tax covers investment in any private business entity, **but only in 2016 was it applied to startups.**

3) **LCA Tejas:** Designed by **Aeronautical Development Agency under DRDO and manufactured by State-owned Hindustan Aeronautics Limited (HAL)**, it replaced the ageing Mig 21 fighter planes.

- The **lightest, smallest and tailless multi-role** supersonic fighter aircraft in its class.
- Designed to carry a range of **air-to-air, air-to-surface, precision-guided, weapons.**
- Air to air refuelling capability. Maximum payload capacity of 4000 kg.
- It can attend the maximum speed of Mach 1.8. The range of the aircraft is 3,000km

4) **Lupus:** it is an **autoimmune disease** that can cause damage to any part of the body.

- An **autoimmune disease** is one in which the **immune system is unable to recognize the difference between healthy cells in the human body and the foreign cells it fights to remove.**
- This results in multiple organs like **skin, joints, blood, kidney, liver, lung, and heart getting affected.** It is treated by immunosuppression via drugs
- Occurs in the age group of **12-45 years affecting women or young girls more than men.**
- **Systemic lupus erythematosus disease activity index (SLEDAI):** It is a global index that was developed and introduced in 1985 as a clinical index for the assessment of lupus disease activity in the preceding 10 days.

5) **Puisne Judge:** The term is used in common law countries to **refer to judges who are ranked lower in seniority, i.e., any judge other than the Chief Justice of that court.**

- In India, all judges have the same judicial powers. **As the seniormost judge of a court,** the Chief Justice has an additional administrative role.
- In India, there is a **reference to a puisne judge only while considering the order of seniority for appointments, elevations to High Courts, etc.,** but it does not have a bearing on the exercise of a judge's judicial power.
- **Common law is the body of law that is created by judges through their written opinions, rather than through statutes or constitutions (statutory law).** The United Kingdom (UK) and the Commonwealth countries, including India, are common law countries

4<sup>th</sup> Feb

1) **Primary Agricultural Credit Societies (PACS):** PACS are the **ground-level cooperative credit institutions that provide short-term, and medium-term agricultural loans to the farmers** for the various agricultural and farming activities. PACS are the lowest unit in a three-tier structure

- The **first Primary Agricultural Credit Society (PACS) was formed in the year 1904.**
- The recent Budget (2023-24) has made a **provision to make 2 lakh PACS in the next 5 years and create a multi-purpose PACS in every Panchayat.**
- PACS are outside the **purview of the Banking Regulation Act, 1949,** and therefore not regulated by RBI.

2) **Follow on Public Offer (FPO):** FPO is a process wherein a company already listed on a stock exchange issues new shares to existing investors or shareholders. **It is also known as a secondary offering.** FPO allows a company to raise additional funds through the issuance of new shares.

- **Dilutive FPO:** It is when a company issues additional shares and offers them to the public.
- It increases the **number of outstanding shares of the company thus reducing earnings per share (EPS).**
- **Non-dilutive FPO:** It is when existing shareholders, like directors or founders, sell their shares and offer them to the public. They are used to change the shareholding ownership.
- **At-the-market offering:** It is a type of FPO in which a company offers secondary public shares on any given day to raise capital, mostly depending on the prevailing market price.

3) **Visva Bharati university:** It will soon get the **'heritage' tag from UNESCO to take the distinction of world's first living heritage university.**

- It is one of **India's major Central Government funded autonomous university located in Santiniketan, West Bengal** known for Visual Art practice and research in India.
- The university was established in **1921 by Nobel Prize Laureate, Rabindranath Tagore.**
- Visva Bharati University is renowned for its cultural festivals called **Poush Mela and the Basanta Utsab** which attracts a number of artisans from all across the country.

4) **Guru Ravidas:** A North Indian mystic poet of the bhakti movement of **Nirguna tradition**

- While the exact year of his birth is not known, it is believed that the saint was born in **1377 C.E.** The **Adi Granth of Sikhs, in addition to the Panchvani are the two of the oldest documented sources of the literary works of Guru Ravidas.**
- He is believed to be a disciple of the **bhakti saint-poet Ramananda** and a contemporary of the **bhakti saint-poet Kabir.** One of his famous disciples was the saint, Mirabai.
- He wanted to create "**Begampura**", a city that knows no sorrow; and a society where caste and class have ceased to matter. His teachings resonated with the people, **leading to a religion being born called the Ravidassia religion, or Ravidassia Dharam**

5) **Sickle Cell Disease:** It is a genetic condition that affects **haemoglobin — responsible for carrying oxygen in the body— in red blood cells.**

- It is inherited when a child **receives two genes— one from each parent—**that code for abnormal haemoglobin
- In someone who has SCD, the hemoglobin is abnormal, which causes the red blood cells to become hard and sticky and look like a C-shaped farm tool called a “sickle.”
- Treatment: **Medication, blood transfusions and rarely a bone-marrow transplant**

#### 6<sup>th</sup> Feb

1) **North Star:** also known as **Pole Star**, it is a very bright star, around **2,500 times more luminous than the Sun.** It is part of the constellation **Ursa Minor** and is 323 light years away from the Earth.

- The **North star is less than 1° away from the north celestial pole**, almost in direct line with the Earth’s rotational axis. It appears to sit motionless in the northern sky, with all the other stars appearing to rotate around it.
- The elevation of the star above the horizon gives the approximate latitude of the observer and thus helped in navigation.
- Upon crossing the equator to the south, however, the **North Star is lost over the horizon** and hence stops being a useful navigational aid.

2) **Dhamaal:** it is a mix of **Sufi and African musical and dance**, referring particularly to the spiritual practices of the **Siddis of Gujarat performed to celebrate the anniversary of the birth and death of spiritual leaders.** They are performed in two ways

- **Dance Dhamaal:** It is performed in both sitting and dance positions and the focus is more on the sounds of the instruments.
- **Baithaaki Dhamaal:** is performed in the sitting position and the focus is more on the lyrics and less on the musical instruments.
- The spiritual songs that are sung during the **Dhamaals are known as zikrs.**

3) **Muons:** these are **subatomic particles raining from space.** They are created when the particles in Earth’s atmosphere collide with cosmic rays — clusters of high-energy particles that move through space at just below the speed of light. It is claimed that **“about 10,000 muons reach**

**every square meter of the Earth’s surface a minute”.**

- Muography is conceptually similar to X-ray but capable of scanning much larger and wider structures, owing to the penetration power of muons.
- Researchers are using **muons to study the fortress wall of Xi’an, an ancient city in China.**

4) **Large Exposure Framework (LEF) guidelines of RBI:** LEF are guidelines aimed to monitor and limit losses of a bank from a client or corporation. **It is based on the 2014 Basel guidelines.**

- The RBI has a **Central Repository of Information on Large Credits (CRILC)** database system where the banks report their exposure of **₹5 crores and above which is used for monitoring purposes.**
- An exception to LEF: Banks need not report exposure if the loans are taken from RBI, is guaranteed by the Government of India or have Intra-day interbank exposures or deposits are maintained by **NABARD** (due to shortfall in target for Priority sector Lending)

5) **Dearness Allowance (DA):** DA is a **cost of living adjustment that the Government pays to public sector employees and pensioners to curb the effect of inflation.** It is calculated as a percentage of the basic salary. **DA is fully taxable** for individuals who are salaried employees.

- It is **compulsory to declare the tax liability** concerning DA when filing an ITR.
- **Since DA is based on the cost of living**, this salary component is not fixed.
- **Variable Dearness Allowance (VDA)** applies to Central government employees and undergoes **revision every six months** based on the changes in the Consumer Price Index
- **Industrial Dearness Allowance (IDA)** applies to the **Public sector employees of the Central Government and is revised every quarter based on the changes in CPI**

#### 7<sup>th</sup> Feb

1) **Doctrine of res judicata:** evolved from the **English Law System**, it literally means **‘the thing has been judged’**. It is a judicial concept which means that the issue before the court has already been decided by another court, between the same parties, and the courts do not allow a petition to be filed in the same or to the other

Court. Thus, courts dismiss the case before it as being useless.

- **Res Judicata is applicable both in the case of the Civil as well as Criminal legal system.**

2) **Strike-slip faults:** the recent Earthquake that hit Syria and Turkey was at a depth of 18km on East Anatolian fault, which was a strike slip fault.

- **Strike-slip faults indicate rocks are sliding past each other horizontally**, with little to no vertical movement. Both the San Andreas and Anatolian Faults are strike-slip.
- **Other faults:** Normal faults create space. Two blocks of crust pull apart, stretching the crust into a valley. **The Basin and Range Province in North America and the East African Rift Zone are two well-known regions** where normal faults are spreading apart Earth's crust.
- **Reverse faults, also called thrust faults**, slide one block of crust on top of another. These faults are **commonly found in collisions zones**, where tectonic plates push up mountain ranges such as the **Himalayas and the Rocky Mountains**.

3) **Types of bonds:** Sebi has strengthened the framework for **green bonds** (green debt securities) by introducing the **concept of 'blue' and 'yellow' bonds** as new modes of sustainable finance.

- **Blue bonds:** It is a **debt instrument issued by governments**, development banks or others to raise capital to finance marine and ocean-based projects that have positive environmental, economic and climate benefits
- **Yellow bonds pertain to solar energy**
- **Transition bonds:** To fund a firm's transition or to reduce their carbon emissions

4) **NASA-ISRO Synthetic Aperture Radar (NISAR):** It is a **Low Earth Orbit (LEO) observatory jointly developed by NASA and ISRO** consisting of both **L-band and S-band synthetic aperture radar (SAR)** instruments, which makes it a dual-frequency imaging radar satellite.

- NISAR will be **the first satellite mission to use two different radar frequencies (L-band and S-band)** to measure changes in our planet's surface. SAR is capable of penetrating clouds and can collect data day and night regardless of the weather conditions.
- **NASA has provided the L-band radar, GPS, a high-capacity solid-state recorder to store data, and a payload data subsystem.** ISRO has

provided the S-band radar, the GSLV launch system, and spacecraft.

- It will measure **Earth's changing ecosystems, dynamic surfaces, and ice masses, providing information about biomass, natural hazards, sea level rise, and groundwater** globally with 12-day regularity on ascending and descending passes.

5) **White Label ATM:** set up, owned and operated by non-banks, the operators are authorised under **the Payment & Settlement Systems Act, 2007 by the Reserve Bank of India (RBI)**.

- Such non-bank entities should have a minimum net worth of **Rs 100 crore as per the latest financial year's audited balance sheet**, which is to be maintained at all times.
- **Foreign Direct Investment (FDI)**, up to 100 per cent, is allowed under the automatic route in the activity of White Label ATM (WLA) Operations.

9<sup>th</sup> Feb

1) **National Industrial Corridor Development and Implementation Trust (NICDIT):** Recently, eight projects under the **National Industrial Corridor Development and Implementation Trust (NICDIT)** have been sanctioned and approved by the Government of India.

- NICDIT is an apex body under the administrative control of the **Department for Promotion of Industry and Internal Trade (DPIIT)**, Ministry of Commerce and Industry
- The Industrial Corridors are **envisaged to be implemented by a Special Purpose Vehicle (SPV)** in the form of a company set up under the Companies Act, 2013 as a joint venture between the central and the state governments.
- NICDIT supports project development activities and appraisal, approval and sanction of projects. It also coordinates and monitors all central efforts for the development of Industrial Corridor projects.

2) **QR code-based Coin Vending Machine (QCVM):** It is a **cashless coin dispenser that dispenses coins in exchange for a bank account debit** via the Unified Payments Interface (UPI).

- Unlike traditional cash-based Coin Vending Machines, the QCVM would not require banknote tendering or validation.
- This will offer ease and ready access to coins for customers via the UPI facility.

3) **Hittites:** They were members of an ancient Indo-European people who appeared in Anatolia (also known as Asia Minor, modern-day Turkey) at the beginning of the 2nd millennium BCE.

- The **Hittite language** was a member of the Anatolian branch of the **Indo-European language family**. The Hittite economy was based on agriculture.
- Although their civilization thrived during the Bronze Age, the Hittites were the forerunners of the Iron Age and were manufacturing iron artefacts from as early as the 14th century BCE.
- The **Hittites were famous for their skill in building and using chariots.**

4) **Vikas Engine:** It is a family of liquid fuelled rocket engines.

- It is used in the **Polar Satellite Launch Vehicle (PSLV)** and the **Geosynchronous Satellite Launch Vehicle (GSLV)** series of expendable launch vehicles for space launch use.
- The early productions involved imported **French components, which were later replaced by domestically produced equivalents.**
- The fuel load of the Vikas engine is 40 tonnes for the PSLV, GSLV Mark I and II, and 55 tonnes for the GSLV Mark III.

5) **Liberalised Remittance Scheme (LRS): Introduced in 2004,** LRS allows Indian residents to freely remit up to USD \$250,000 per financial year for current or capital account transactions or a combination of both. Any remittance exceeding this limit requires prior permission from the RBI.

- **Only individual Indian residents, including minors,** are permitted to remit funds under LRS. Corporates, partnership firms, HUF, trusts, etc., are excluded from its ambit.
- There are **no restrictions on the frequency of remittances under LRS.**
- **Types of transactions permitted:** Acquisition of immovable property abroad, **overseas direct investment (ODI), and overseas portfolio investment (OPI);** Extending loans, including loans in Indian Rupees to non-resident Indians (NRIs), **Private visits abroad (excluding Nepal and Bhutan); Maintenance of relatives abroad; Medical treatment abroad;** Pursuing studies abroad .

10<sup>th</sup> Feb

1) **Bhashini Mission:** It aims to build a **National Public Digital Platform** for languages.

- It is a **local language translation mission** that aims to **break the barrier between various Indian tongues by using available technology.**
- This government platform aims to make **Artificial Intelligence and Natural Language Processing (NLP)** resources available in the public domain to be used by — **Indian MSMEs, startups and individual innovators.** This will help developers to offer all Indians easy access to the internet and digital services in their native languages.
- **This online platform also has a separate 'Bhasadaan' section** which allows individuals to contribute to multiple crowdsourcing initiatives and it is also accessible via respective Android and iOS apps.

2) **SSLV-D2:** In its second attempt, **ISRO's smallest vehicle, Small Satellite Launch Vehicle (SSLV-D2), was launched from the Satish Dhawan Space Centre, Sriharikota, Andhra Pradesh.**

- It will place the **ISRO's earth observation satellite EOS-07 and two co-passenger satellites** – Janus-1 and AzaadiSat2.
- **Janus-1:** It is a technology demonstrator satellite built by **US-based Antaris** and its Indian partners **XDLinks and Ananth Technologies.**
- **AzaadiSat2:** It is a **Cubesat** weighing around 8 kg and carries 75 different payloads.
- Girl students from rural regions across the country were provided guidance to build these payloads. The **payloads are integrated by the student team of "Space Kidz India".**

3) **Exercise TARKASH:** Sixth edition of joint exercise TARKASH recently concluded by **The National Security Guard (NSG) and US Special Operations Forces (SOF) in Chennai.**

- The exercise for the first time included **"Chemical, Biological, Radiological and Nuclear (CBRN) terror response" in its drill.**
- The objective was to **rapidly neutralise the terrorists, rescue the hostages safely and deactivate the chemical weapons** being carried by the terrorists.

4) **Bru Refugee Crisis:** Bru or Reang is a community indigenous to Northeast India, living mostly in **Tripura, Mizoram and Assam.** In Tripura, they are recognised as a PVTG.

- In Mizoram, they have been targeted by groups that do not consider them indigenous to the state. In 1997, following ethnic clashes, nearly 37,000 Brus fled Mizoram and were accommodated in relief camps in Tripura.
- They belong to **Indo-Mongoloid racial stock**. Their languages have an **affinity with Austro-Asiatic groups under the Tibeto-Burman family**.
- Ethnically they are divided into 2 major clans namely **Meska and Molsoi**.
- Their language is known as “**Kaubru**” and they **practise jhum cultivation**.

5) **Operation Dost**: It is an **ongoing search and rescue mission initiated by the Government of India to help Syria and Turkey**, after they witnessed a massive earthquake that left thousands dead, injured and trapped under the rubble.

- Under operation dost, India has **sent search and rescue teams, mainly teams of the National Disaster Response Force (NDRF)**, materials, medicines, medical equipment and consumables to Turkey and Syria.

**11<sup>th</sup> Feb**

- 1) **Mission Antyodaya Survey (MAS) 2022-23**: The Department of Rural Development has been conducting **Mission Antyodaya Survey across all Gram Panchayats in the country since 2017-18** with the purpose of **transforming the lives and livelihoods of people on measurable outcomes through the convergence of various schemes**. The village-wise survey is expected to be conducted over a period of **one month** involving Community Resource Persons (CRPs)

Mission Antyodaya was launched in **2017-18 by Ministry of Rural Development**. The main objective of the mission is to **bring optimum use of natural resources in rural areas**. The purpose is to aid the panchayats in creating their development plan.

- 2) **Formula E**: Hyderabad will host the first-ever E-Prix race that will take place on India’s first street circuit. Formula E is an **electric equivalent of the widely followed Formula 1 which was staged in India from 2011 to 2013**. However, other than the ‘Formula’ prefix, there is no similarity between the two FIA world championship status events.

- It is the **first global sport to be certified with a net zero carbon footprint**

- 3) **UPI123Pay**: It is a **three-step method** to initiate and execute services for users which will work on

simple phones. It will allow customers to use **feature phones for almost all transactions except scan and pay**. It doesn’t need an internet connection for transactions. Customers have to link their bank account with feature phones to use this facility.

- UCO bank has launched **UPI123 pay IVR based services called UCO Bhim in 10 languages** for citizens holding account in any bank.
- **Interactive Voice Response (IVR)**: Users would be required to initiate a secured call from their feature phones to a predetermined IVR number and complete UPI on-boarding formalities to be able to start making financial transactions like **money transfer, mobile recharge, EMI repayment, balance check, among others**.

4) **Digital Payment Se Pragati Ko Gati**: An initiative by MeitY, to **increase awareness and accelerate the adoption of digital payments in the country**. This initiative will empower the end user even in the farthest corner of the country with basic feature phones to **check their account balance, send money, recharge their mobile number, book LPG and pay their electricity bill** just by calling a given number from their registered mobile number.

5) **Article 105 of Constitution**: It deals with the **powers, and privileges of the Houses of Parliament (collective), its members (individual) and committees**. It has the following provisions –

- There shall be **freedom of speech in Parliament**. MPs are exempted from any legal action for any statement made or act done in the course of their duties in Parliament.
- This immunity **extends to certain non-members as well** – the Attorney General of India or a Minister who may not be an MP but speaks in the House.
- Instead of the court, the Speaker of the House will deal with instances where a Member goes beyond the bounds of permissible free expression.

**Exception**: In accordance with **Article 121 of the Indian Constitution**, no judge’s conduct may be discussed in Parliament unless it is part of a motion that asks the President to remove the judge. Under these privileges, the members of Parliament are exempted from any civil liability (but not criminal liability) for any statement made or act done in the course of their duties. The privileges are claimed only when the person is a member of the house.

13<sup>th</sup> Feb

1) **Millet International Initiative For Research And Awareness (MIIRA):** India will launch **MIIRA during its G20 Presidency**. The global initiative will be aimed at **coordinating millet research programmes** at the international level and will be launched keeping in mind the **nutritional value and the climate resilient nature of millets**.

- Besides setting up a web platform to connect researchers and holding international research conferences, the plan is also to promote millet consumption by raising awareness.
- India would provide the **“seed money” for MIIRA to take off**, and each G20 member will subsequently be required to pay to its budget in the form of a membership fee.
- **MIIRA secretariat will be in Delhi**, and India being a major producer of millets, will ensure a flow of investment from the country's industry and research bodies.

2) **Market Access Initiative (MAI):** Launched by Department of Commerce, Ministry of Commerce and Industry to act as a catalyst to promote India's exports on a sustained basis.

- The scheme is formulated on the basis of the **product and country focus approach**. It will evolve specific markets and specific products through market studies/surveys.
- **The first edition of “Upnext India 2023”** (Reverse Buyer Seller) meet was organized by AEPC and supported by the Ministry of Commerce and Industry under the MAI Scheme
- Reverse Buyer Seller Meet is to provide an opportunity for prospective importers (Buyers) to interact with their Indian counterparts (sellers) about the requirements, instead of sellers going to buyers to sell their products.
- **Apparel Export Promotion Council (AEPC):** Incorporated in **1978**, AEPC is the official body of apparel exporters in India that provides assistance to Indian exporters as well as importers/international buyers who choose India as their preferred sourcing destination for garments.

3) **Mammatus clouds:** refer to distinctive cloud formations that are separated by a bulge or protrusion emerging from the base of another cloud.

- They are usually formed in **association with large cumulonimbus clouds**.

- Typically, turbulence within the cumulonimbus cloud will cause Mammatus to form.
- Mammatus clouds generally form in the most unstable cumulonimbus, meaning that there is also a chance of hail, heavy rain and lightning in the vicinity, and if the air is cold enough during winter they can produce snow.

4) **INDIAai initiative:** It is the **National artificial intelligence Portal of India which was launched in 2020**. It is a joint initiative by the **Ministry of Electronics and IT (MeitY), National e-Governance Division (NeGD) and NASSCOM**.

- It is the **single central knowledge hub on artificial intelligence** and allied fields for aspiring entrepreneurs, students, professionals, academics, and everyone else.

5) **National Disaster Response Force (NDRF):** It is India's specialized force for responding to **natural disasters and chemical, biological, radiological and nuclear defense (CBRN) emergencies**, under Ministry of Home Affairs. It is the only dedicated disaster response force in the world

- The force was constituted under the **Disaster Management Act of 2005**. NDRF is a force of **12 battalions, organised on para-military lines**, and manned by persons on deputation from the para-military forces of India

14<sup>th</sup> Feb

1) **President's Colour Award:** Union Home Minister will present the **President's Colour Award to the state police at a ceremony at the Haryana Police Academy**. It is one of the **highest honour that can be awarded to any military unit**, military training establishments, and state/UT Police Forces of India.

- It is bestowed upon in **recognition of exceptional service rendered to the Nation, both in peace and in war**. It is also known as “Rashtrapati ka Nishaan” in Hindi.
- **Indian Navy was the first Indian Armed Force to be awarded the President's Colour by Dr. Rajendra Prasad on 27 May 1951**.
- During any ceremonial parade, the President's Colour is kept at a special position.

2) **BIMARU States:** The BIMARU states are **four northern Indian states: Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh**. At times Odisha is also included in the grouping, as BIMAROU.



- Coined by **Ashish Bose in the mid-1980**, it has a resemblance to a Hindi word "**Bimar**" which means sick. It implies that they have lagged in terms of **economic growth, healthcare and education**. When this term was coined, the States of Jharkhand, Chhattisgarh and Uttarakhand were not separate States and were part of the grouping.

**3) Aero India 2023:** It is a **biennial air show and aviation exhibition held in Bengaluru, India and is organised by the Defence Exhibition Organisation, Ministry of Defence, since 1996.**

- The **Aero India is the largest air show in Asia.** Theme: "The runway to a billion opportunities"
- The focus will be on showcasing indigenous equipment/technologies and forging partnerships with foreign companies, in line with 'Make in India, Make for the World' vision
- **The Bandhan ceremony:** witnesses signing of MoUs/Agreements, Transfer of Technologies, Product Launches. **The annual defence innovation event, Manthan,** will be the flagship technology showcase event.

**4) Procedure of transfer of HC judge:** Article 222 of the Constitution makes **provision for the transfer of a Judge (including Chief Justice) from one High Court to any other High Court.**

- The initiation of the proposal for the **transfer of a Judge should be made by the CJI**
- CJI is expected to take into account the **views of the Chief Justice of the High Court from which the Judge is to be transferred and Chief Justice of the High Court to which the transfer is to be affected.** The views of one or more Supreme Court Judges who are in a position to offer his/their views are also taken into account.
- In the case of transfer of a Chief Justice, **only the views of one or more knowledgeable Supreme Court Judges need to be taken into account.**
- The views on the proposed transfer should be **expressed in writing and should be considered by the CJI** and the four senior most Judges of the Supreme Court.
- The proposal once referred to the Government, the Union Minister of Law, Justice and Company Affairs would submit a recommendation to the Prime Minister who will then advise the President as to the transfer of the Judge concerned.

**5) Bhasha daan initiative:** It is an **ambitious project which aims to crowdsource voice**

**datasets in multiple Indian languages.** On the project's website, people can contribute in **three key ways: by recording their voice samples in multiple Indian languages by reading out a piece of text, typing out a sentence being played, and translating text in one language into another.**

It will help in developing the language model of Bhashini.

**15<sup>th</sup> Feb**

**1) Vacancy of Deputy Speaker: Lok Sabha does not have a deputy speaker since 2019.**

- **Article 93** says that Lok Sabha shall, as soon as may be, choose two members to be Speaker and Deputy Speaker so often as the offices become vacant. However, it does not provide a specific time frame. **Article 178** contains the corresponding position for Speaker and Deputy Speaker of the Legislative Assembly of a state.
- **Articles 93 and 178 use the word "shall",** indicating that the election of Speaker and Deputy Speaker is mandatory under the Constitution.
- **The Deputy Speaker is elected by the Lok Sabha from amongst its members** right after the election of the Speaker. The date of election of the Deputy Speaker is fixed by the Speaker.

**2) G20 Culture Group meeting:** Ministry of Culture is organising the **First G20 Culture Group (CWG) meeting in Khajuraho, Madhya Pradesh.** The working group will have four meetings and they will be held in **Khajuraho, Bhubaneshwar, and Hampi.**

- The theme of the **Khajuraho meet is "Protection and Restitution of Cultural Property".**
- The **Khajuraho Group of Monuments is a UNESCO World Heritage Site which was constructed by the Chandela Dynasty between 950-1050 AD.**
- These monuments are built in **Nagara-style architecture** and ornamented with intricate and detailed sculptures. The monuments include Hindu and Jain

**3) Postpartum depression:**

- It is a complex mix of **physical, emotional, and behavioral changes** that happen in some women after giving birth. **PPD is a form of major depression that begins within 4 weeks after delivery.**
- **About 1 in 1,000 women** develop a more serious condition called postpartum psychosis.

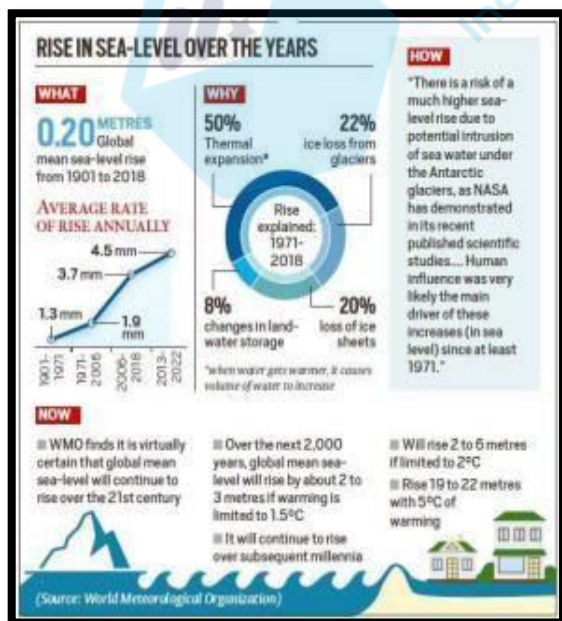
- The chemical changes involve a **rapid drop in hormones after delivery.**
- Postpartum haemorrhage (PPH) is defined as a **blood loss of 500 ml or more within 24 hours after birth.** PPH is the leading cause of **maternal mortality in low-income countries**, and the primary cause of nearly one quarter of all maternal deaths globally.

4) **Marginal cost of funds-based lending rate (MCLR):** It is the **minimum interest rate below which no bank is permitted to lend money.** It is determined by banks internally, depending upon the loan repayment time.

- The RBI introduced the **MCLR methodology for fixing interest rates in 2016.** It replaced the base rate structure.
- MCLR is calculated based on four components **Marginal cost of fund, Negative carry on account of cash reserve ratio, Operating costs, Tenor premium**
- The base rate is based on the **average cost of funds, but MCLR is based on the marginal or incremental cost of money.** MCLR depends on the repo rates changed by RBI while Base Rate does not depend on the repo rates changed by RBI.

5) **Global Sea-level Rise and Implications:** released by World Meteorological Organisation (WMO).

- **India, China, Bangladesh and the Netherlands** face the highest threat of sea-level rise globally.
- WMO reported that the speed of melting of the largest global ice mass in Antarctica is uncertain.



16<sup>th</sup> Feb

1) **Article 170:** under this, States get divided into **territorial constituencies as per Delimitation Act after every Census.** The Supreme Court observed that Article 170 of the Constitution deals with only the State Legislature and thus has no application to the Legislatures of UT.

- Legislative Assemblies of the concerned Union Territories will be governed by the law made by the Parliament in accordance with **Article 239A.** Even if the law made by Parliament creating a body of legislature for Union territories of **Puducherry and J&K has the effect of amending certain parts**, it shall not be deemed to be an amendment of the Constitution for the purposes of Article 368.

2) **Startup20 Engagement Group:** initiated under India's G20 Presidency in 2023 it aims to create a global narrative for supporting startups and enabling synergies between startups, corporates, investors, innovation agencies and other key ecosystem stakeholders.

- The engagement group comprises of **three taskforces, namely Foundation & Alliance, Finance, and Inclusion & Sustainability.**
- By creating the Startup20 Engagement Group, G20 has turned itself into an **ambidextrous institution- while the existing B20 Engagement Group continues its focus on corporations**, the Startup20 takes on the policy issues concerning the global startup ecosystem, with the necessary linkages between the two groups.

3) **Income tax 'raids':** IT survey: authorities conduct surveys to **unearth hidden or undisclosed income and property.** Here, the main focus is the **collection of information.** It is also ascertained in a survey if a person or a business has properly maintained its books of accounts or not. It is guided by Section 133A of the Income Tax Act, 1961.

- **IT search:** Searches are thorough inspections of buildings, places of business, and other places to find hidden income or wealth in tax evasion cases. The authorities are also given the power to seize the **documents, assets, bullion, which have been hidden from the authorities.** Searches are conducted under Section 132 of the I-T Act.
- Surveys can be conducted during **business hours, searches have no restrictions**

4) **Roche limit:** refers to the distance from any celestial body within which its tidal forces prevent the **formation of natural satellites**. Material in orbit outside the Roche limit would be aggregating to become natural satellites. The rings of other planets lie within the Roche limit.

- **Example: The moon is pulled towards the Earth by gravity.** The draw is stronger on the side facing the Earth compared to the other. As a result, **the moon is compressed or stretched from all sides by the so-called tidal force**. But, the moon's own gravity aids in keeping it intact by negating the tidal force's effects. The moon's gravitational pull can be overpowered, if it is moved closer to the planet and it will eventually shatter the satellite, transforming it into a ring. **The Roche limit is the shortest distance at which this occurs.**

5) **Quaoar:** it is a **minor planet** that orbits beyond Pluto in Kuiper belt, discovered in **2002**.

- It is defined as a **minor planet and is proposed as a dwarf planet**. It has a small moon called **Weywot**, orbiting beyond the ring. **Quaoar's ring was spotted by the ESA**. The ring is located about 4,100 km away from **Quaoar's center**, outside the Roche limit.
- They suggest that at such a distance, the particles of the ring should have come together to form a moon.

**17<sup>th</sup> Feb**

**1) Aadi Mahotsav:** It is an attempt to showcase **tribal culture on the national stage and it celebrates the spirit of tribal culture, crafts, cuisine, commerce, and traditional art since 2017**.

- It is an annual **initiative of the Tribal Cooperative Marketing Development Federation Limited (TRIFED) under the Ministry of Tribal Affairs**.
- The main objective of conducting **Aadi Mahotav is to prevent the middlemen from exploiting the tribals** and provide direct access to markets to tribals.

**2) RAISINA DIALOGUE:** It is a **multilateral conference committed to addressing the most challenging issues facing the global community**. Every year, global leaders in policy, business, media, and civil society are hosted in **New Delhi** to discuss cooperation on a wide range of pertinent international policy matters. The conference is hosted by the **Observer Research**

**Foundation in collaboration with the Ministry of External Affairs.**

- **Observer Research Foundation is an independent think tank based in New Delhi** that provides non-partisan, independent, well-researched analyses and inputs to diverse decision-makers in governments, business communities, and academia and civil society around the world.

**3) Muscat Manifesto: Third Global High-Level Ministerial Conference on Antimicrobial Resistance (Nov 2022) held in Muscat.** Over 30 countries adopted the Muscat Ministerial Manifesto on AMR.

- The Muscat Manifesto recognised the need to accelerate political commitments in the implementation of **One Health action for controlling the spread of AMR. 3 targets:**
  - Minimising the amount of antimicrobials used in agrifood systems by **at least 30 to 50 per cent by the end of this decade**.
  - Bringing an end to the use of **medically important antimicrobials for growth promotion in animals** and restricting it for human medicines.
  - **"Access" group antibiotics – a category of antibiotics that are affordable, safe, and having low risk of antimicrobial resistance – must represent at least 60 per cent of overall antibiotic consumption in humans by 2030.**
  - It calls upon the **Quadripartite organisations – FAO, UNEP, WHO and the World Organisation for Animal Health (WOAH) – to provide guidance and technical support to countries to help them achieve the goals related to AMR.**

**4) Waqf:** In legal terms, **permanent dedication by a person professing Islam**, of any movable or immovable property for any purpose recognised by the Muslim law as **pious, religious or charitable**.

- **A person creating the waqf cannot take back the property.** A non-Muslim can also create a waqf but the individual must profess Islam.
- **Central Waqf Council is an Indian statutory body established in 1964 under the Waqf Act, 1954** (now a subsection of the Waqf Act, 1995) for the purpose of advising it on matters pertaining to the working of the State Waqf Boards and proper administration of the Waqfs in the country.
- **The Council is headed by a Chairperson**, who is the Union Minister in charge of Wakfs and there

are maximum 20 other members, appointed by Government of India as stipulated in the Wakf Act.

**5) Business 20 (B20):** Formed in **2010**, is the official G20 dialogue forum with the global business community. **B20 aims to deliver concrete actionable policy recommendations on the priorities by each rotating presidency to spur economic growth and development.**

- **Manipur hosted the B20 conference.** The theme of the conference was **Sustainable Growth and Development**. It was in line with the theme of the G20 summit, which is **One Earth One Family One Future**.

#### 18<sup>th</sup> Feb

1) **Uroosi:** One way of **saving lives in case of a natural calamity is to reconnect with older methods of architecture and construction.** Uroosi, a Mughal-era home architectural element popular in Kashmir, is one such method.

- **Uroosis are wooden shutters used as partition walls within homes, instead of concrete walls.** Uroosi work includes **octagonal and decagonal ornamental pillars too.**
- **Jalali House is a landmark in Srinagar** that has this architectural element.

2) **Teja Red Chilli:** also known as **S-17 is one of the hottest varieties of red chillies produced in India.**

- Teja chilli is a fine variety of **Guntur chilli which is mostly produced in the southern states of India.** **Khammam district of Telangana is the largest producer of the Teja variety of red chilli.**
- Teja red chillis are famous for their **culinary, medicinal and other wide-ranging uses** such as being the main ingredient in making pepper spray.

3) **Autism Spectrum Disorder:** ASD refers to a range of conditions characterised by some degree of **impaired social behaviour, communication and language, and a narrow range of interests and activities** that are both unique to the individual and carried out repetitively.

- It is a **complex brain development disability which makes itself visible during the first 3 years** of a person's life. It is not mental retardation.
- There are probably many factors that make a child more likely to have an ASD, including **environmental and genetic factors.**

- Although autism is not curable, its symptoms can be addressed with appropriate interventions like **evidence-based psychosocial interventions, behavioural treatment**
- The Right of Persons with Disabilities Act, 2016 increased the types of **disabilities from 7 to 21.** It also added autism spectrum disorder among others

**4) Munich Security Conference:** The MSC was founded by a **German official and publisher Ewald-Heinrich von Kleist at the peak of the Cold War (1947-1991).**

- Starting in 1963, the conference initially only **focused on military issues** and was mainly attended by western countries and their high-profile officials, who "came together to display a united front in their struggle with Soviet communism".
- After the end of the Cold War, the conference expanded its agenda that went beyond defense and security matters to include issues such as **climate change and migration.**
- It also started to invite leaders from eastern nations, **including Russia, India and China.**
- This year's edition might entail a refocus on its goal- **the security order in Europe,** in the backdrop of the Russia-Ukraine war that began just days after the MSC 2022 was concluded.

5) **Private placement of bonds:** It is a **sale of bonds to select investors and institutions instead of the open market.** Typically, a private placement is defined as an issuance of securities to less than 50 persons.

- Investors in privately placed bonds usually include wealthy individuals and entities, mutual fund providers, insurance companies, and banking and financial institutions.
- Unlike a public offering, private placements are exempt from having to file an offer document with the **Securities and Exchange Board of India (SEBI) for comments.**
- A private placement may not involve any form of general announcement, solicitation, advertising, seminar, or meeting to publicize such an offering.

#### 20<sup>th</sup> Feb

1) **Adenovirus:** A group of viruses that can cause mild to severe infections throughout your body.

- They can cause a **wide range of illnesses, such as the common cold, fever, pneumonia, pink eye, and acute gastroenteritis.** There are many

different types of adenoviruses, so that people can get infected more than once.

- Adenovirus infections occur throughout the year, but they tend to **peak in the winter and early spring**. Adenoviruses can affect people of all ages, but they're most common in **children younger than 5 years old**.
- Adenoviruses are very **contagious**. There is currently no specific course of treatment or approved antiviral medication.

**2) First Loss Default Guarantee (FLDG) system:** Banks and NBFCs have almost paused tie-ups with fintech players under the **first loan default guarantee (FLDG)** structure for lending in the absence of clarity on contractual agreements from the Reserve Bank of India (RBI).

- FLDG is a lending model between a fintech and a regulated entity in which a third party guarantees to compensate up to a certain percentage of default in a loan portfolio of the regulated entities (RE).
- Under these agreements, the **fintech originates a loan and promises to compensate the partners up to a pre-decided percentage in case customers fail to repay**.
- The bank/NBFC partners lend through the fintech but from their books.
- FLDG helps expand the customer base of traditional lenders but relies on the fintech's underwriting capabilities.

**3) Kendu leaf:** Kendu Leaf also called the **green gold of Odisha, it is a nationalized product like Bamboo and Sal seed**. It is one of the most important non-wood forest products of Odisha.

- It is also referred to as **tendu leaf** in some parts of the country and is used to **roll tobacco into bidis (local cigarettes)**.
- **Odisha is the third-largest producer of kendu leaf** after Madhya Pradesh and Chhattisgarh.

**4) Exercise Dustlik-2023:** It will be conducted in **Uttarakhand**.

- It is a **military-to-military exchange program** between the **Indian Army and Uzbekistan**
- It is the **fourth edition of the biennial training Exercise**.
- This joint exercise is aimed at enhancing military capability to undertake multi-domain operations in a Sub Conventional scenario under United Nations Mandate.

**5) GLACIAL LAKES OUTBURST FLOOD:** Around 15 million people across the world face the risk of **sudden and deadly flooding from glacial lakes**, which are expanding and rising in numbers due to **global warming**, according to a new study published in Nature. More than half of those who could be impacted live in four countries: **India, Pakistan, Peru and China**.

- Increasing glacial melting because of climate change, alongside other environmental effects of climate change (i.e permafrost melting) mean that **regions with glaciers are likely to see increased flooding risks from GLOFs**. This is especially true in the Himalayas where geologies are more active.
- A glacial lake outburst flood (GLOF) is a type of **outburst flood caused by the failure of a dam containing a glacial lake**.

**21<sup>st</sup> Feb**

**1) Rashtriya Rifles:** The Idea of creating RR was conceived in **1990** when militancy in the valley skyrocketed and the local law enforcements were unable to contain the insurgency. **The RR in its initial days deployed to the valley and the specific regions in Punjab during the (Khalistan insurgency)**.

- Soon it became the most decorated branch in the entire Indian army with more than 500 gallantry awards under its belt.
- After the **normalcy in the Punjab region**, the RR operated solely in **Jammu Kashmir** and till date is only limited to operations in the valley.
- The **Rashtriya Rifles** exceeds the infantry (who also operate in the valley) in terms of manpower and has very specific task cut out for them whereas the infantry has more generalised roles.

- 1) Anubhuti Inclusive Park:** It is the **world's first inclusive disabled park**. Location: **Nagpur, Maharashtra**. The park will have adapted facilities for **all 21 types of disabilities**, including a touch and smell garden, hydrotherapy unit, water therapy, and independent room for differently abled children, mothers, etc.

**3) ULTRASAT:** NASA will launch **Israel's first space telescope mission in 2026**

- ULTRASAT is an **ultraviolet observatory** with a large field of view, that will investigate the **secrets of short-duration events in the universe**, such as supernova explosions and

mergers of neutron stars. It is planned to launch into a geostationary orbit around Earth

- NASA will provide **the launch opportunity, Flight Payload Adapter**, and other launch-related responsibilities for ULTRASAT.

#### 4) Survey of Vultures:

- **The Kerala, Tamil Nadu and Karnataka**, is preparing to organise the first synchronised vulture survey in select regions of the Western Ghats.
- **Wayanad Wildlife Sanctuary**, contiguous to the tiger reserves of **Nagarhole and Bandipur of Karnataka and Mudumalai of Tamil Nadu**, is the lone region where vultures thrive in Kerala
- **Vultures faced a catastrophic population decline during the 2000s** when the species was exposed to the anti-inflammatory drug diclofenac used as a painkiller for cattle.

**5) Pangolin:** A new report by **TRAFFIC and WWF for Nature-India** revealed that **1,203 pangolins were poached for illegal wildlife trade in India from 2018-2022.**

- These were recovered across 24 states and one Union territory of India. **The highest number of seizure incidents and pangolins seized were in Odisha.**
- Pangolins are **nocturnal mammals** that dig burrows and feed **on ants and termites**, and play a vital role in ecosystem management, mostly in aerating and adding moisture to the soil.
- It is adaptable to a wide range of habitats including **primary and secondary tropical forests**, limestone and bamboo forests, grasslands and agricultural fields.
- The Indian Pangolin is found across the Indian subcontinent; **Bihar, West Bengal, and Assam** also have the presence of Chinese pangolin.

#### 22<sup>nd</sup> Feb

1) **UPI Pay Linkages:** As part of an agreement, India's UPI will be linked to **Singapore's PayNow**

- **Singapore is the first country with which cross border Person to Person (P2P) payment facility** has been launched.
- **Unified Payments Interface (UPI):** It is an **advanced version of Immediate Payment Service (IMPS)** - round-the-clock funds transfer service to make **cashless payments faster, easier and smoother.** It integrates multiple bank accounts into a single mobile application, merging several banking features, seamless fund routing & merchant payments into one hood.

- **Operator:** National Payments Corporation of India (NPCI). NPCI launched UPI with 21 member banks in 2016.

2) **HD-3385:** The IARI scientists have developed **three varieties of wheat, all of them incorporating genes that are responsible for the mild vernalization requirement preventing premature flowering and early heading-HDCSW18, HD-3410 and HD-3385.**

- HD-3385 looks most promising. With the same yields as HD-3410, **plant height of just 95 cm and strong stems**, it is least lodging-prone and most amenable for early sowing.

3) **AstroSat:** It is India's **first dedicated multi-wavelength space observatory.**

- It is the **first dedicated Indian astronomy mission** aimed at studying celestial sources in **X-ray, optical, and UV spectral bands** simultaneously.
- **AstroSat, was launched by PSLV from Satish Dhawan Space Centre, Sriharikota in 2015**, into a 650 km orbit inclined at an angle of 6 degrees to the equator.
- **One of the unique features of AstroSat mission** is that it enables the **simultaneous multi-wavelength observations of various astronomical objects with a single satellite.**
- The **Ground Command and Control Centre for ASTROSAT is located at ISRO Telemetry, Tracking and Command Network (ISTRAC), Bangalore, India.** The minimum useful life of the AstroSat mission is around 5 years.

4) **Pink Dolphin:** It is the **Amazon River dolphin which is also known as the pink river dolphin or boto and lives only in freshwater.** The river dolphin is smaller than other types of saltwater dolphins.

- Pink dolphins must live in **warm, shallow water areas** because they have very little blubber.
- Unlike ocean-dwelling dolphins, **pink dolphins have a hump instead of a dorsal fin.**
- Generally, these dolphins become more pink as they age, which has led to the species becoming known as the 'pink dolphin.' **Conservation status: IUCN: Endangered**

5) **WHALE STRANDING:** It is a phenomenon in which whales are stuck on land, usually on a beach.

- Other aquatic animals like **dolphins and porpoises are also known to beach.**

- Most of the stranding events involve single animals but mass strandings occur too.
- **Major hotspots: Tasmania, New Zealand's Golden Bay and Massachusetts's Cape Cod** in US
- The latest whale beaching event in Sri Lanka might have been caused due to the "recent seismic activity in the Indian Ocean".
- Several studies have shown that noise from large commercial ships, military sonars or offshore drilling severely impacts whales' and other marine animals' ability to use sound to navigate, find food and protect themselves. This can drive them ashore by deafening, disorienting, or frightening them

### 23<sup>rd</sup> Feb

1) **Mohiniattam:** It originated in **the state of Kerala**. The dance is performed by women in honor of the Hindu god Vishnu in his incarnation as the enchantress Mohini.

- **Mohiniattam is exclusively danced by women.** It is also softer than the very vigorous **Kathakali**. It is also noted for the **Shringara** (erotic) depictions of divine love.
- Traditionally, **the dance was performed solo**, but in the 21st century it may also be performed in groups. It is characterized by **graceful, swaying body movements with no abrupt jerks or sudden leaps**. It belongs to the Lasya style-feminine, tender and graceful.
- The most characteristic element of the "form" component of Mohiniattam is the **circular or spiral movement of all the limbs of the body**. This gives it a swaying effect which resembles the movement of a pendulum and thus it is called aandolika

2) **Dickinsonia fossil:** **Dickinsonia fossil** found in Bhimbetka in 2021 is old beehive

- It is an **extinct genus of basal animal** that lived during the late Ediacaran period in what is now Australia, Russia and Ukraine.
- These creatures arose in a world **devoid of predators**, and had no need for hard protective carapaces or skeletons.
- The discovery of cholesterol molecules in fossils of **Dickinsonia lends support to the idea that Dickinsonia was an animal**.

3) **Burkina Faso:** It is a **land locked country in West Africa and a former French colony**.

- The country's name, means "land of the honest men".

- Since 2015, the country has been fighting an **Islamist insurgency** that spilled over from neighbouring Mali. Landlocked Burkina Faso, one of West Africa's poorest countries despite being a gold producer, has experienced numerous coups since independence in 1960.
- The **Prime Meridian passes through the country**.

4) **Law Commission of India:** IT is a **non-statutory body constituted by the GOI from time to time**.

- It functions to **the Ministry of Law and Justice** as an advisory body.
- **The first Law Commission was established in 1834 by the Charter Act of 1833** and was chaired by Lord Macaulay. In **1955**, the **first independent Law Commission** was created.
- **Objective:** To carry out research in the field of law and makes non binding recommendations to the Government (in the form of Reports) as per its terms of reference.
- The Law Commission has so far submitted **277 Reports**. The commission consists of legal experts and is headed by a retired judge. **The Commission is constituted for a 3 year term**.

5) **Keeladi Excavation:** The excavations in the Keeladi region since **2015** prove that an urban civilisation existed in Tamil Nadu in the Sangam age.

- The settlement lies on the bank of the **Vaigai River**. This is a **large-scale excavation carried out in Tamil Nadu after the Adichanallur archaeological site**. This site is estimated to be from the period between the 5th century BCE and the 3rd century CE.
- The word '**Sangam**' is the **Tamil form of the Sanskrit word Sangha which means a group of persons or an association**. This sangama was an academy of poets who flourished in three different periods and different places under the patronage of the Pandyan kings.
- **The Sangam literature**, which was largely consolidated from the third Sangam, **sheds light on people's living conditions at the start of the Christian era**.

### 24<sup>th</sup> Feb

1) **Sangeet Natak Akademi Awards:** The awards are given to the artists from the field of **Music, Dance, Theatre, Traditional/Folk/Tribal Music/Dance/Theatre, Puppetry and Overall contribution/scholarship in the Performing Arts**

etc. The Akademi Awards carries purse money of **Rs. 1.00 lakh, a Tamrapatra and an Angavastram.**

- **The Sangeet Natak Akademi** is India's national academy for music, dance and drama.
- It was created by a **resolution of the (then) Ministry of Education, Government of India**, in 1952 with **Dr P.V. Rajamannar** as its **first Chairman**.
- It is presently an **Autonomous Body of the Ministry of Culture, Government of India** and is fully funded by the Government for implementation of its schemes and programmes.

2) **SOCIAL STOCK EXCHANGE:** The National Stock Exchange(NSE) has received final approval from SEBI, to set up a Social Stock Exchange (SSE) as a separate segment of the NSE.

- An SSE allows the listing of non-profit or NGOs on stock exchanges, providing them with an alternative fund-raising structure. It may be listed on **BSE or NSE**. The idea of SSE **was first floated by Finance Minister Nirmala Sitharaman** in her 2019-20 Budget speech. **Countries like the UK, Canada and Brazil** have SSEs.
- The fund-raising is proposed through several instruments such as **zero-coupon-zero-principal bonds, social venture funds and mutual funds**.
- Corporate foundations, political or religious organisations or activities, professional or trade associations, infrastructure and housing companies, except affordable housing will not be eligible to be identified as a social enterprise.

3) **INS Sindhukesari:** It has become **the first Indian submarine to dock in Indonesia**.

- It is a 3,000-tonne Kilo-class diesel-electric submarine.
- It was designed as part of **Project 877 and built under a contract between Russia, and the Ministry of Defence (India)**.
- The Kilo Class is the NATO designation for a naval diesel-electric submarine made in Russia.

4) **GREAT BACKYARD BIRD COUNT 2023:** It is a community science project in ornithology conducted annually. The event is supported by the **Cornell Lab of Ornithology and the National Audubon Society**. The GBBC was first launched in 1998 in the US

- It was the **first online citizen-science project** (also referred to as community science) to

collect data on **wild birds and to display results in near real time**. Bird Count India organises the GBBC in the country. In 2013, it became a **global project after entering data into eBird**, the world's largest biodiversity-related citizen science (community science) project.

- **West Bengal reported the highest number of species of birds, followed by Uttarakhand and Arunachal Pradesh**. Kerala recorded the highest number of checklists of birds
- The BCI is an **informal partnership of organisations and groups** working together to increase collective knowledge about bird **distributions and populations**.

5) **Friendshoring:** also called "**allyshoring**", it is a strategy where a country sources **the raw materials, components and even manufactured goods from countries that share its values**. The dependence on the countries considered a "threat" to the stability of the supply chains is slowly reduced.

- The purpose of Friendshoring is to **insulate countries' supply chains from less like-minded nations**, such as China in case of the US.

**25<sup>th</sup> Feb**

1) **National Mobile Monitoring System (NMMS):** It was launched by the **Minister of Rural Development in 2021** to bring more transparency and ensure proper monitoring of the schemes.

- The NMMS App permits taking real time attendance of workers **at Mahatma Gandhi NREGA worksites along with geo-tagged photograph**. This helps in increasing citizen oversight of the programme and is applicable for the MGNREGA workers for all the States/ Union Territories.

2) **Open Network for Digital Commerce:** ONDC is a **freely accessible government-backed platform that aims to democratise e-commerce** by moving it from a platform-centric model to an open network for buying and selling of goods and services.

- It has been incorporated as a **Section 8 company in 2021 with the Quality Council of India and Protean eGov Technologies Limited** as initial promoters
- Under ONDC, it is envisaged that a **buyer registered on one participating e-commerce site** (for example, Amazon) may **purchase goods**



from a seller on another participating e-commerce site (for example, Flipkart).

- It is neither an aggregator application nor a hosting platform, and all existing digital commerce applications and platforms can voluntarily choose to adopt and be a part of the ONDC network.

3) **Soft-landing:** A soft landing is a **cyclical slowdown** in economic growth that avoids recession.

- A soft landing is the **goal of a central bank when it seeks to raise interest rates just enough to stop an economy from overheating and experiencing high inflation, without causing a severe downturn.** Soft landing may also refer to a gradual, relatively painless slowdown in a particular industry or economic sector.
- But when the actions of the central bank bring about a recession, it is called a **hard-landing.**

4) **eSanjeevani:** It is a **doctor to doctor telemedicine system, being implemented under the Ayushman Bharat Health and Wellness Centre (AB-HWCs) programme.**

- It is the **world's largest telemedicine implementation in the primary healthcare** developed by the Centre for Development of Advance Computing (C-DAC). It has benefited 10 Cr people.
- Using the hub-and-spoke approach, **it aims to link together all 1,50,000 HWCs.**
- According to the model, a network will be created that consists of an anchor establishment, or hub, that provides a full range of services and will be complemented by secondary establishments, or spokes, that offer limited services and direct patients in need of more intensive services to the hub for treatment.
- **eSanjeevaniOPD:** enables patient-to-doctor tele-consultations at no cost.

5) **Exercise Desert Flag VIII:** It is an **annual multinational large-force employment warfare exercise hosted by the UAE Air Force.**

- For the 1<sup>st</sup> time, LCA Tejas will also participate in an **international multilateral exercise.**
- With the UAE, **India has In-UAE BILAT (bilateral naval exercise) as well as Desert Eagle-II (bilateral air force exercise).**

27<sup>th</sup> Feb

1) **National Data and Analytics Platform:** NITI Aayog, in collaboration with ministries and state governments launched a **transformational open data platform called the NDAP in 2022**

- The platform aims to **democratize access to public government data by making data accessible, interoperable, interactive, and available on a user-friendly platform.**
- It hosts foundational datasets from various government agencies, presents them coherently, and provides tools for analytics and visualization.
- NDAP follows a use-case-based approach to ensure that the datasets hosted on the platform are tailored to the needs of data users from government, academia, journalism, civil society, and the private sector. All datasets are standardized to a common schema, which makes it easy to merge datasets and do cross-sectoral analysis.

2) **Sant Sevalal Maharaj Jayanti:** For the first time ever, the year-long commemoration of birth anniversary of **Sant Sevalal Maharaj is being celebrated by the Ministry of Culture, under the aegis of Azadi ka Amrit Mahotsav campaign.**

- Born in Karnataka, He is considered a **social reformer and spiritual teacher of the Banjara community.** He travelled across the country to serve the forest dwellers and nomadic tribes.
- Due to his extraordinary knowledge, and spiritual background in Ayurveda and Naturopathy, he was able to dispel and eradicate myths and superstitions prevalent in the tribal communities and brought about reforms in their way of life.

3) **Lambadis:** **Lambadis/Banjara/Lambanis were the nomadic tribes who found in Rajasthan, Karnataka, Andhra Pradesh, Rajasthan, Madhya Pradesh, Gujarat and Maharashtra.**

- They are the **largest tribal community** in Telangana followed by Karnataka.
- Lambadi traditional bards called **Bhats** recite the Lambadi epic of **Sevabhaya.**
- The language of Banjara is known as **"Gorboli" "Gor mati Boli" or "Brinjari"** an independent dialect. The dialect falls in the category of Indo-Aryan language.
- They were **commercial nomads**, that is, they distributed salt and other essential items to

interior villages, but they did have a connection with the land.

- They are listed in various States as **SC, ST, OBC** and as **Vimukta Jati/denotified tribes**.

4) **Karakattam Dance:** It is a form of **folk dance performed at festivals, conferences, road shows, and primarily at Mariamman festivals;** Mariamman, the rain goddess.

- While the dance form is not dying, it has undergone radical change. Mostly famous in **Tamil Nadu**, it's performed in different parts of Kerala too.
- **Karakattam and agriculture have a link.** It is because the Mariamman pooja is held in harvest season in Kerala.
- **Elements:** swaying movements and joyous banter. Three tiers of flower arrangements of different colours sit on top of a container balanced on the dancer's head.

5) **Himalayan Griffon:** It is one of the **two largest Old World vultures and true raptors.** This species is found along the Himalayas and the adjoining Tibetan

- **Himalayan vultures are also susceptible to toxicity induced by diclofenac,** a drug whose residues are in domestic animal carcasses. But their population have however not shown signs of rapid decline as witnessed in populations of other Gyps vultures across Asia.
- **IUCN: Near Threatened**

**28<sup>th</sup> Feb**

1) **Attukal Ponkala:** It is a **10-day long festival celebrated annually in Trivandrum, Kerala,** dedicated to Attukal Bhagavathy, also known as Goddess Kannaki or Bhadrakali.

- **Pongala, which means 'to boil over',** is the ritual in which **women prepare payasam and offer it to the Goddess or 'Bhagavathy'.** It is one of the largest congregation of women for a festival in the world.
- During the 10-days festivities, a **sacrificial offering known as Kuruthitharpanam** is also included in the religious event.

2) **1300-yr-old Buddhist Stupa:** Recently, the Archaeological Survey of India (ASI) discovered a **1,300-year-old stupa in Odisha at a Khondalite mining site.**

- It was found at **Parabhadi** which is situated near **Lalitagiri**, a major Buddhist complex, having a large number of stupas and monasteries.

- **Lalitgiri Buddhist site is believed to be the most sacred among the three sites (Lalitagiri, Ratnagiri and Udayagiri)** as it unearthed a massive stupa where a relic of Buddha was discovered inside a stone casket.

3) **Khondalite Stones:** it is a type of **metamorphic rock** that is found in the Eastern Ghats region of India, particularly in the state of Odisha. It is named after the **Khondalite Group of rocks**, which is believed to have formed around 1.6 billion years ago during the Proterozoic era.

- Khondalite is primarily composed of **feldspar, quartz, and mica, and has a distinct pinkish-grey coloration.** It is commonly used as a decorative stone in construction and is particularly prized for its durability and resistance to weathering.
- Odisha government has come up with an ambitious plan under the **Augmentation of Basic Amenities and Development of Heritage and Architecture (ABADHA)** scheme in three years to transform Puri into a world heritage city.

4) **Global Internet Shut-Offs:** According to a report by Access Now and the KeepItOn coalition, India enforced **84 internet shutdowns in 2022 and was on top of the list for the fifth year in a row.**

- **Ukraine (22 shutdowns),** Iran and Myanmar occupy the top 4 positions along with India.
- Internet was shut down **49 times in Jammu and Kashmir, the highest of any state in the country.**
- At least **187 internet shutdowns across 35 countries were recorded in 2022.**

5) **Proton Beam Therapy:** It is a type of **radiation therapy — a treatment that uses high-energy beams to treat tumors.**

- Radiation therapy using X-rays has long been used to treat cancers and noncancerous (benign) tumors. It uses protons rather than x-rays to treat cancer. At high energy, protons can destroy cancer cells.
- It can also be combined **with x-ray radiation therapy, surgery, chemotherapy, and/or immunotherapy.** Like x-ray radiation, it is a type of external-beam radiation therapy.
- PBT is able to **treat cancers** just as effectively but delivers less radiation to other healthy parts of the body which surround the tumour.
- There is currently a **significant demand-supply gap of proton beam therapy machines in India,** with only a few machines available in the country.

## Prelims Booster- Press Information Bureau (PIB)

**1. Pradhan Mantri PVTG (Particularly Vulnerable Tribal Groups) Development Mission:** Finance Minister **Nirmala Sitharaman** announced the launch of a new scheme called the **Pradhan Mantri PVTG Development Mission** as part of the Union Budget 2023-24. This mission aims to provide **basic necessities such as housing, water, roads, telecom, education, and health in areas inhabited by PVTGs**, who are the most vulnerable and backward tribes among the Scheduled Tribes. It will be implemented over the next three years.

**2. Particularly Vulnerable Tribal Groups:** The PVTGs are a group of **tribal community people in need of greater support and development**. Out of the 705 Scheduled Tribes in India, **75 have been identified as PVTGs with the most numbered in the state of Odisha**. They are spread across 17 states and one Union Territory. Government of India follows the following criteria for identification of PVTGs:

- Pre-agricultural level of technology
- Low level of literacy
- Economic backwardness
- A declining or stagnant population.

**3. Income Tax structure in Budget 2023-24:** The Budget reveals major announcements in personal income tax that substantially benefit the middle class. **Persons with income upto ₹ 7 lakh will not pay income tax in new tax regime**. Tax exemption limit has been increased to 3 lakhs.

**Change in tax structure:** Number of slabs has been reduced to five.

The new tax rates are:

Total income (Rs)	Rate (per cent)
Upto 0-3 lakh	Nil
From 3-6 lakh	5%

From 6-9 lakh	10%
From 9-12 lakh	15%
From 12-15 lakh	20%
Above 15 lakh	30%

**4. Urban Infrastructure Development Fund (UIDF):** The Union Budget announces establishment of **Urban Infrastructure Development Fund** through use of priority sector lending shortfall. This will be managed by the **National Housing Bank**, and will be used by public agencies to create urban infrastructure in **Tier 2 and Tier 3 cities**. States will be encouraged to leverage resources from the grants of the 15th Finance Commission, as well as existing schemes, to adopt appropriate user charges while accessing the UIDF.

**It will be established on the lines of the Rural Infrastructure Development Fund (RIDF).**

**5. ISRO System for Safe & Sustainable Operation" (IS4OM):** S4OM is a facility that is conceived with a holistic approach **towards ensuring safety and sustainability while reaping the benefits of sustainable utilization of outer space for national development**.

Mandate: Multi-domain awareness platform S4OM will bring a **prompt, accurate and efficient information on on-orbit collision, fragmentation, atmospheric re-entry risk, space based strategic information, hazardous asteroids and space weather forecast**.

**Key Function:** S4OM facility will aid **India in achieving its SSA (Space Situational Awareness) goals by providing a comprehensive and timely information**.

**Significance:** IS4OM facility can support-All routine operations safeguarding Indian space assets, mitigating collision threats from space objects.

6. **Centralized Public Grievances Redress and Monitoring System (CPGRAMS):** It is an **online web-enabled system developed by National Informatics Centre**, in association with Directorate of Public Grievances (DPG) and Department of Administrative Reforms and Public Grievances (DARPG).

The underlying idea was **to receive, redress and monitor the grievances of the public.**

It was **launched by the Department of Administrative Reforms & Public Grievances (DARPG)** under the Ministry of Personnel, Public Grievances & Pensions.

The CPGRAMS provides the facility to lodge a **grievance online from any geographical location.**

7. **Pradhan Mantri Kisan Samman Nidhi Yojana:** It was launched in **2019** to supplement financial needs of land holding farmers. Financial benefit of **Rs 6000/- per year in three equal installments**, every four month is transferred into the bank accounts of farmers' families across the country through Direct Benefit Transfer (DBT) mode.

**Scope of the Scheme:** The scheme was initially meant for **Small and Marginal Farmers (SMFs) having landholding upto 2 hectares** but scope of the scheme was extended to cover all landholding farmers.

**Funding and Implementation:** It is a Central Sector Scheme with 100% funding from the Government of India. It is being implemented by the **Ministry of Agriculture and Farmers Welfare.**

**Objectives:** To supplement the financial needs of the Small and Marginal Farmers in procuring various inputs.

- To protect them from falling in the clutches of moneylenders.

8. **Exclusion Under PM KISAN Scheme:** The following categories of **beneficiaries of higher economic status shall not be eligible for benefit under the scheme:**

- All Institutional Landholders.
- Former and present holders of constitutional posts
- Former and present Ministers ,former/present Members of Lok Sabha/ Rajya Sabha/ State Legislative Assemblies/ State Legislative

Councils, Mayors of Municipal Corporations, and Chairpersons of District Panchayats.

- All serving or retired officers and employees of Central/ State Government Ministries
- All Persons who paid **Income Tax in last assessment year**
- Professionals like **Doctors, Engineers, Lawyers, Chartered Accountants, and Architects.**

9. **E-Daakhil Portal:** A web application for E-filing of consumer complaints named "**edaakhil.nic.in**" has been developed by NIC. This digital software for **filing consumer complaints has the many features like e-Notice, case document download link & VC hearing link.** E-Daakhil Portal was launched by National Consumer Dispute Redressal Commission (NCDRC). The Consumer Protection Act, 2019, has provision for **e-filing of consumer complaints in the Consumer Commissions and online payment of the fees for filing a complaint.** To facilitate the rural consumers for e-filing, it has been decided to integrate the Common Service Centres (CSC) with the e-daakhil portal.

10. **Ayushman Bharat Programme:** The Scheme was launched in **2018** to address health issues at all levels. It covers **over 50 crore beneficiaries.** It has been dubbed 'Modicare. The scheme is meant **only for poor and economically-deprived people**, not everyone is eligible to get free medical insurance. It is a **centrally sponsored scheme under the Ministry of Health and Family Welfare.** The funding for the scheme will be shared – **60:40 for all states and UTs with their own legislature**, 90:10 in Northeast states and three Himalayan states of Jammu and Kashmir, Himachal and Uttarakhand and 100% Central funding for UTs without legislature.

**Component-1: Pradhan Mantri Jan Arogya Yojana:** It is the **largest government-funded health insurance scheme in the world.**

The scheme offers eligible families an insurance cover of **Rs. 5 lakh per annum per family.** This amount is intended to cover all **secondary and most tertiary care expenditures incurred.**

There is **no cap on family size, age and gender.** It covers pre and post-hospitalization expenses. It will also cover all pre-existing conditions. The beneficiary will also receive a defined transport allowance per hospital. The beneficiaries can

take cashless treatment from any empanelled hospital anywhere in the country.

**Component-2: Health and Wellness Centre:**

HWC are being created by converting the existing primary health centres and subcentres. They provide comprehensive primary health care (CPHC) including a **child and maternal health services, non-communicable diseases, and also diagnostic services, and free essential drugs.**

**11. Operation Sadbhavana:** Operation Sadbhavana (Goodwill) is a **unique humane initiative undertaken by Indian Army in the State of Jammu & Kashmir** to address aspirations of people affected by scrooge of terrorism, sponsored and abetted by Pakistan. The focus of Operation Sadbhavana is to **improve the overall core social indices of Education, Women & Youth Empowerment, and Health care**, capacity building through infrastructure development projects.

**12. Generative Artificial Intelligence:** It refers to the capability of **artificial intelligence-enabled machines to use existing text, audio files, or images to create new content.** The use of Generative AI is still in its early stages, and its impact is likely to grow as technology continues to evolve and improve. Currently, there is no specific regulation for Generative Artificial Intelligence (AI). However, the development and deployment of AI is governed through laws and policies related to privacy, data protection, intellectual property, and cyber security. MeitY has approved 'National Program on Artificial Intelligence' for development of AI based solutions and ensure responsible and transformational use of #AI for All

**13. Pradhan Mantri Krishi Sinchayee Yojna:** It is a Centrally Sponsored Scheme (Core Scheme) launched in 2015. **Centre- States will be 75:25** per cent. In the case of the **north-eastern region** and hilly states, it will be **90:10**. It will benefit about 22 lakh farmers, **including scheduled caste and scheduled tribe farmers.**

**Objectives:** Convergence of investments in irrigation at the field level.

- **To expand the cultivable area under assured irrigation (Har Khet ko pani).**
- To improve on-farm water use efficiency

- To enhance the adoption of precision-irrigation (More crop per drop).

- To enhance recharge of aquifers

**Formulation:** It was formulated by amalgamating following schemes: **Accelerated Irrigation Benefit Programme (AIBP)**, Integrated Watershed Management Programme (IWMP) and On-Farm Water Management (OFWM).

**Implementation:** Decentralized implementation through State Irrigation Plan and District Irrigation Plan. Ministry of Agriculture & Farmers Welfare is the nodal Ministry.

**14. Guru Ravidas:** **Guru Ravidas was a North Indian mystic poet of the bhakti movement.** The Adi Granth of Sikhs, in addition to the Panchvani are the **two of the oldest documented sources of the literary works of Guru Ravidas.** Notably, he belonged to an untouchable caste and suffered a lot of atrocities as a result. He is believed to be a disciple of the bhakti saint-poet **Ramananda** and a contemporary of the bhakti saint-poet Kabir. **One of his famous disciples was the saint, Mirabai.** Among Ravidas's moral and intellectual achievements were the conception of "Begampura", a city that knows no sorrow; and a society where caste and class have ceased to matter. **Ravidassia religion, or Ravidassia Dharam was born based on his teachings.**

**15. Largest Helicopter facility:** A new Helicopter Factory of Hindustan Aeronautics Limited (HAL) in **Tumakuru, Karnataka was inaugurated recently.** The Greenfield Helicopter Factory is planned with a vision to become a one-stop solution for all helicopter requirements of the country. **It is India's largest helicopter manufacturing facility and will initially produce Light Utility Helicopters (LUHs).**The LUH is an indigenously designed and developed 3-ton class, single engine multipurpose utility helicopter with unique features of high maneuverability. This factory will enable India to meet its entire requirement of helicopters without import.

**16. Pradhan Mantri Garib Kalyan Ann Yojana:** PMGKAY is a part of the **Pradhan Mantri Garib Kalyan Package (PMGKP) to help the poor fight the battle against Covid-19.** It is considered as world's largest food security scheme. **It aimed at providing each person who is covered under the**

**NFSA 2013 with an additional 5 kg grains (wheat or rice) and 1 kg of gram for free.**

It was initially announced for a three-month period (April, May and June 2020), covering 80 crore ration cardholders.

The program is operated by **the Department of Food and Public Distribution under the Ministry of Consumer Affairs, Food and Public Distribution**, but it's nodal Ministry is the Ministry of Finance. Families belonging to the Below Poverty Line – Antyodaya Anna Yojana (AAY) and Priority Households (PHH) categories will be eligible for the scheme

**17. Yuva Sangam Program:** The Yuva Sangam is an **initiative of Hon'ble Prime Minister** to build close ties between the youth of North East Region and rest of India **under the spirit of Ek Bharat Shreshtha Bharat**. The program will give an opportunity to see, know, understand India and do something for the country. This Wide Cultural Exchange Program will also give an opportunity to our youth to celebrate the ancient culture and natural diversity of India. Over the next few months, more than 20,000 students will travel across India and enhance their mutual understanding.

**18. White Tigers:** In India, **white tigers are predominantly found in Rewa, Madhya Pradesh**. They have been reported in the wild from time to time in the Indian states of **Assam, West Bengal, Bihar**. These tigers have white fur because of the lack of the pigment pheomelanin. Also known as bleached tigers, have an almost white fur or pale colour due to the lack of yellow, black, and orange pigments. **The world's first White Tiger Safari was opened to the public in Madhya Pradesh**. White tigers are neither a different species nor a subspecies. **They are descendants of the Bengal tiger**. Like the Bengal tiger, it is a fast runner. They weigh 180-220 kg and are fast and agile when hunting at night.  
**IUCN Status: Endangered**

**19. Swadesh Darshan Scheme:** Swadesh Darshan, a Central Sector Scheme, was launched in **2014 - 15 for integrated development of theme based tourist circuits in the country**. This scheme is envisioned to synergise with other schemes like **Swachh Bharat Abhiyan, Skill India, Make in India etc**. Under the scheme, the Ministry of

Tourism provides Central Financial Assistance (CFA) to State Governments/Union Territory Administrations for infrastructure development of circuits. One of the objectives of the scheme is to **develop theme-based tourist circuits on the principles of high tourist value, competitiveness and sustainability** in an integrated manner.

Nodal Ministry: Ministry of Tourism

**20. Jal Jeevan Mission:** Launched in 2019, it envisages supply of **55 litres of water per person per day to every rural household through Functional Household Tap Connections (FHTC)** by 2024. It comes under Jal Shakti Ministry. Implementation: **Paani Samitis plan, implement, manage, operate and maintain village water supply systems**. The plan is approved in a Gram Sabha before implementation.

**Funding Pattern:** The fund sharing pattern between the Centre and states is **90:10 for Himalayan and North-Eastern States, 50:50 for other states, and 100% for Union Territories**. It is a centrally Sponsored Scheme.

**Objectives of Jal Jeevan Mission:** Securing tap and sewer connections, Rejuvenation of water bodies, creating circular water economy, integrated and community approach to secure water.

**Status:** Around households (50.38%) have tap water connections across the nation as of June, 2022. At the State level, **Goa, Telangana and Haryana have achieved 100% tap connectivity**.

**UTs like Puducherry, the A&N Islands, Dadra & Nagar Haveli and Daman & Diu have achieved 100 % tap water connections**

**21. Garima Greh Scheme:** The Scheme provides **'Shelter Home for Transgender Persons'**. The ministry has decided to set up **shelter homes for transgender persons who have been forced to leave their homes or abandoned by the family**. Ministry for Social Justice & Empowerment is the nodal ministry. **This is first such home in Vadodara**. They will be run by transgender community-led organisations. These shelters will also provide skill training to connect the community members with livelihood opportunities. This is a pilot project.

**22. Atal Vayu Abhyuday Yojana (AVYAY):** It is run by Department of Social Justice and Empowerment. **It is a central sector scheme.**

**Objectives:** To improve the quality of life of the Senior Citizens by providing basic amenities like **shelter, food, medical care and entertainment opportunities**, free of cost to indigent senior citizens.

**Integrated Programme for Senior Citizens (IPsC) is a component of AVYAY.**

**23. Largest Milk Producer:** According to production data of Food and Agriculture Organization Corporate Statistical Database (FAOSTAT), **India is the highest milk producer i.e., rank first position in the world contributing twenty-four percent of global milk production in the year 2021-22.**

The milk production of India has **registered fifty-one percent increase during the last eight years i.e., during the year 2014-15 and 2021-22** and increased to twenty-two crore tonne in the year 2021-22.

**24. Rashtriya Vayoshree Yojana:** It was launched in 2017 by the Ministry of Social Justice and Empowerment. **It is a central sector scheme funded from the Senior Citizens' Welfare Fund.**

**Aim:** It aims to **provide aids and assistive living devices to senior citizens belonging to Below Poverty Line (BPL) category** who suffer from age-related disabilities such as low vision, hearing impairment, loss of teeth and locomotor disabilities.

As per the Census figures of 2011, **the population of senior citizens in India is 10.38 crore.** More than 70% of the population of senior citizens live in rural areas of the country.

**Implementation:** The Scheme is being implemented by the **Artificial Limbs Manufacturing Corporation (ALIMCO), a PSU (Public Sector Undertaking)** under the Ministry of Social Justice and Empowerment.

**25. Coffee Industry:** Coffee exports grow by **38% in 2021-22 as compared to 2020.** India was the 5th largest exporter of coffee in the world with a share of about 6% of global coffee exports.

**Top 5 Coffee Exporting Countries in the World during 2021-22 are Brazil (23%), Vietnam, Colombia, Indonesia, India.**

The southern region of India is where coffee is primarily grown. **The majority of India's total coffee production, or around 70%, is produced in Karnataka.** Tamil Nadu and Kerala come after it. **Orissa and the North-eastern regions produce less than other regions.**

Coffee Consumption: More than **70% of the nation's produce is exported.** Coffee exports from India exhibit seasonality, with export peaks occurring between March and June

**26. President's Address:** Article 87 provides that at the **commencement of the first session after each general election to the House of the People and at the commencement of the first session of each year,** the President shall address both Houses of Parliament assembled together. **Such an Address is called 'special address', and it is also an annual feature.**

The President's Address is the statement of policy of the Government and, as such, is drafted by the Government. The Address contains a **review of various activities and achievements of the Government during the previous year and sets out the policies, projects and programmes** which Government of the day wishes to pursue.

**27. Motion of Thanks:** The address of the president is discussed in both the Houses on a motion called the **'Motion of Thanks'**. It is available to the members of Parliament to raise **discussions and debates to examine and criticise the government for its lapses and failures.**

Generally, three days are allotted for the discussion on the Motion of Thanks. If any of the amendments are put forward and accepted then the **Motion of Thanks is adopted in the amended form.** At the end of the discussion, the motion is put to vote. **The Motion of Thanks must be passed in the House. Otherwise, it amounts to the defeat of the government.**

**28. Mission Poshan 2.0:** It seeks to **address the challenging situation of malnutrition among children up to the age of 6 years, adolescent girls (14-18 years) and pregnant and lactating women.** The Supplementary Nutrition Programme under **Anganwadi Services, Scheme**

for Adolescent Girls(SAG) and Poshan Abhiyaan have been incorporated under Poshan 2.0 as an **Integrated Nutrition Support Programme (INSP) to address the challenge of malnutrition.** **Objective:** To contribute to the human capital development; Address challenges of malnutrition; Promote nutrition awareness and good eating.

It is ongoing **Centrally-sponsored programme.** **September is observed as Rashtriya Poshan Maah.** Similarly, in/around March, Poshan Pakhwada is celebrated. The implementing agency is the **Ministry of Women and Child Development.**

**29. Green Steel:** Green Steel is the manufacturing of steel without the use of fossil fuels. This can be done by **using low-carbon energy sources such as hydrogen, coal gasification, or electricity** instead of the traditional carbon-intensive manufacturing route of coal-fired plants.

To move towards 'Green Steel', the Petroleum and Natural Gas Ministry **launched Pradhan Mantri Urja Ganga Project in Eastern India in 2019 to provide gas to all steel plants located in the area.**

**30. National Action for Mechanised Sanitation Ecosystem (NAMASTE) Scheme:** NAMASTE is a Central Sector Scheme of the **Ministry of Social Justice and Empowerment (MoSJE) as a joint initiative of the MoSJE and the Ministry of Housing and Urban Affairs.** NAMASTE envisages the safety and dignity of sanitation workers in urban India.

**The Scheme has been approved for four years from 2022-23 to 2025-26.** Five hundred cities (converging with AMRUT cities) will be taken up under this phase of NAMASTE.

**Objective:** Zero fatalities in sanitation, Skilled workers perform all sanitation work, No sanitation workers come in direct contact with human faecal matter, Sanitation workers are collectivized into SHGs and are empowered to run sanitation enterprises, access to alternative livelihoods.

**31. RCS UDAN Scheme:** Ministry of Civil Aviation's flagship program Regional Connectivity Scheme UDAN was initiated in 2016 to **fulfill the aspirations of the common citizen by following**

the vision of 'Ude Desh ka Aam Nagrik', with enhanced aviation infrastructure and air connectivity in tier II and tier III cities.

**RCS-UDAN was awarded Prime Minister's Award for Excellence in Public Administration under Innovation Category for the year 2020.** There were 74 operational airports in 2014 and because of the UDAN scheme, this number has increased to 141 now. **RCS-UDAN was formulated based on the review of The National Civil Aviation Policy (NCAP) 2016.**

It has a **self-financing mechanism with the development of the Regional Connectivity Fund (RCF).** Under this Scheme, RCF was created, which funds the VGF (viability gap funding) requirements of the scheme through a levy on certain domestic flights.

**32. North East Special Infrastructure Development Scheme:** It is a **Central Sector Scheme under the Ministry of Development of North Eastern Region with time period from 2017-23.**

**Features of NESIDS:** The new scheme will broadly cover creation of infrastructure under following sectors: Physical infrastructure relating to **water supply, power, connectivity** and specially the projects promoting **tourism;** Infrastructure of social sectors of education and health.

**Benefits of NESIDS:** The assets to be created under the new scheme of NESIDS will not only **strengthen health care and education facilities** in the region but will also encourage tourism thereby the employment opportunities for local youth.

**33. NashaMukt Bharat Abhiyaan or Drugs-Free India Campaign:** Launched by Ministry of Social Justice and Empowerment in 2020. **It's aim is to create an army of youth, women and community who are self-reliant and well informed about the ill effects of substance use.**

**Focal Points:** Preventive, mass education and sensitization, positive partnership with educational institutions, rehabilitation and counselling facilities.

**Data on Drugs:** According to the National Comprehensive Survey conducted by the Ministry of Social Justice and Empowerment, there are more than 60 million drug users in the country. Large number of users are in the age



group of 10-17 years. World Drug Report 2022, Released by UN Office on Drugs and Crime (UNODC): **India has been named the largest opiate market worldwide.**

**34. Lithium Reserve:** Geological Survey of India has for the first time established **Lithium resources of 5.9 million tonnes in Salal-Haimana area of Reasi District of Jammu & Kashmir (UT).**

Lithium: It is a chemical element with the symbol Li. It is **a soft, silvery-white metal. Under standard conditions**, it is the lightest metal and the lightest solid element. It has the lowest density. It is highly reactive and flammable, and must be stored in mineral oil. It is **an alkali metal and a rare metal**. It has become the **new white Gold**. Lithium does not occur as the metal in nature, but is found combined in small amounts in nearly all igneous rocks and in the waters of many mineral springs.

**Uses:** In Thermonuclear reactions; To make electrochemical cells. **Lithium is an important component in Electric Vehicles, Laptops etc.**

Countries with Largest Reserves: Chile > Australia

**35. Small Satellite Launch Vehicle (SSLV-D2):** SSLV-D2 vehicle successfully launched **three satellites** (EOS-07, Janus-1 and AzaadiSAT-2) into their intended circular orbit.

SSLV is capable of **launching mini, micro or nano satellites (10 to 500 kg mass) in to 500 km orbit (low-earth orbit)**. It is a three stage vehicle with all solid propulsion stages and liquid propulsion based Velocity Trimming Module (VTM) as terminal stage.

Janus-1: Built by United States based Antaris and its Indian partner XDLinks and Ananth Technologies. Is a technology demonstrator, smart satellite mission.

AzaadiSat-2: Built by Space Kidz India. Aims to demonstrate LoRa and Amateur Radio Communication capabilities, measure radiation levels in space etc. **About 750 girls students were guided to develop the payloads.**

**36. AMRITPEX 2023:** AMRITPEX 2023, National Philatelic Exhibition organised by the **Department of Posts under the Ministry of Communications will showcase India's rich culture, heritage and history through stamps.**

As part of Azadi Ka Amrit Mahotsav celebrations, **AMRITPEX 2023 is one of the largest initiatives to comprehensively document and display the Story of India from various facets.** It will be an exciting and engaging feast of Indian culture, art, freedom movement, and rich heritage. It is an exhibition on the Transformative Journey of India.

**37. Innovations for Defence Excellence (iDEX):** The iDEX initiative was launched by **the Prime Minister in April 2018**. iDEX is a user driven initiative.

**It aims to achieve self – reliance and foster innovation and technology development in Defence and Aerospace** by engaging Industries including Micro, Small and Medium Enterprises (MSMEs), start-ups, individual innovators, R&D institutes and academia.

**iDEX is funded and managed by the Defence Innovation Organisation(DIO)**, and functions as the executive arm of DIO.

**DIO is a 'not for profit' company registered under Section 8 of the Companies Act 2013.**

Its two founding members are **Hindustan Aeronautics Limited (HAL) & Bharat Electronics Limited (BEL) – Defence Public Sector Undertakings (DPSUs)**. It will provide the engaging industries with funding and other support to carry out Research & Development.

**38. Initiatives at India Energy Week 2023:** Summary of all the initiatives launched in the event:

- **Global International Biofuel Alliance (GIBA):** This was launched by India to create a **favourable ecosystem for promoting biofuels with key stakeholders including the US, Brazil, EU, IEA etc.** as a clean mobility alternative under India's G20 Presidency.
- **'Unbottled' initiative of Indian Oil:** Sustainable garments made of recycled PET bottles. IndianOil has adopted uniforms for retail customer attendants and LPG delivery personnel made from recycled polyester (rPET) & cotton.
- **Net-Zero target:** Budget 2023-24 has **provided Rs 35,000 crore to the petroleum and natural gas ministry for achieving the net-zero target.**
- **Launch of 20% ethanol blend petrol, E20**

- 39. Operation Dost:** It is an ongoing search and rescue mission initiated by the Government of India to help Syria and Turkey, after they witnessed a massive earthquake that left thousands dead, injured and trapped under the rubble.  
Under operation dost, India has sent search and rescue teams, mainly teams of the National Disaster Response Force (NDRF), materials, medicines, medical equipment and consumables to Turkey and Syria..
- 40. TAPAS UAV:** TAPAS-BH, which expands into Tactical Aerial Platform for Advanced Surveillance – Beyond Horizon, is an indigenous medium altitude long endurance class unmanned aerial vehicle. During the Aero India air show and aviation display, it made its flying debut. It will demonstrate its powers and cover both static and aerial shows. TAPAS is DRDO's response to the ISTAR (Intelligence, Surveillance, Target Acquisition, Tracking, and Reconnaissance) requirements of the tri-services. It is being developed in India by Aeronautical Development Establishment. The UAV has a range of more than 18 hours and can operate at altitudes of up to 28,000 feet. TAPAS can fly autonomously or be remotely controlled, depending on pre-programmed flight plans, and it can operate in both daylight and darkness.
- 41. Market Access Initiative scheme:** Recently the first edition of "Upnext India 2023" (Reverse Buyer Seller) meet was inaugurated under the the Market Access Initiative (MAI) Scheme.  
MAI: It is an Export Promotion Scheme. The scheme aims to act as a catalyst to promote India's exports on a sustained basis. The scheme is formulated on the basis of the product and country focus approach. It will evolve specific markets and specific products through market studies/surveys.  
Reverse Buyer Seller Meet: Reverse Buyer Seller Meet is to provide an opportunity for prospective importers (Buyers) to interact with their Indian counterparts (sellers) about the requirements, instead of sellers going to buyers to sell their products.
- 42. Maharishi Dayanand Saraswati:** PM inaugurated the celebration of 200th birth anniversary of Maharishi Dayanand Saraswati. He was an Indian philosopher, social leader and founder of the Arya Samaj. He was the first to give the call for Swaraj as "India for Indian".  
He subscribed to the Vedic notion of chaturvarna system in which a person was not born in any caste but was identified as a brahmin, kshatriya, vaishya or shudra according to the occupation the person followed. His vision of India included a classless and casteless society, a united India (religiously, socially and nationally), and an India free from foreign rule, with Aryan religion being the common religion of all. He took inspiration from the Vedas and considered them to be 'India's Rock of Ages',. He gave the slogan "Back to the Vedas".  
Former President of India, S. Radhakrishnan, called him one of the "makers of Modern India", as did Sri Aurobindo.  
Contribution to the Education System: The DAV (Dayanand Anglo Vedic) schools came into existence in 1886 to realize the vision of Swami Dayanand Saraswati. He was one of the first reformed to advocate for Girls education in India. Dayananda's views were published in his famous work, Satyarth Prakash (The True Exposition).
- 43. Khanan Prahari-Coal Mine Surveillance and Management System (CMSMS):** The Government of India has launched one mobile app namely "KhananPrahari" and one web app Coal Mine Surveillance and Management System. It is a Mobile App of Ministry of Coal for Reporting Illegal Coal Mining and a tool for reporting any illegal coal mining incident through geo-tagged photographs as well as textual information by any citizen from the place of incidence.
- 44. Indo-Pacific Economic Framework:** It is a US-led initiative that aims to strengthen economic partnership among participating countries to enhance resilience, sustainability, inclusiveness, economic growth, fairness, and competitiveness in the Indo-Pacific region.  
The IPEF was launched in 2021 with a dozen initial partners who together represent 40% of the world GDP. The IPEF is not a Free Trade Agreement (FTA) but allows members to negotiate the parts they want to. The

negotiations will be along **four main “pillars”**: **Supply-chain resilience, Clean energy, Taxation & anti-corruption, Fair & resilient trade.**

Currently, India and 13 countries located in the Pacific Ocean are its members, **Australia, Brunei, Fiji, India, Indonesia, Japan, South Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, United States, and Vietnam.**

**45. Sainik Schools:** The Sainik Schools are a **system of schools in India established and managed by the Sainik Schools Society under Ministry of Defence (MoD).** They were conceived in 1961 by V. K. Krishna Menon, to **rectify the regional and class imbalance amongst the Officer cadre of the Indian Military, and to prepare students mentally and physically for entry into the National Defence Academy (NDA) and Indian Naval Academy (INA).** MoD run Sainik Schools as joint venture with the respective state governments. MoD provides annual funding, and serving officers in the key roles such as Principal. **Sainik Schools follow the “CBSE Plus”** by using CBSE curriculum while additionally aiming to prepare children for entry into NDA and INA. Admission to Sainik Schools is granted from 6th class. **The reservation policy caters for SC/ST, wards of Armed Forces employees and ex-servicemen.**

**46. Atal Bhujal Yojana (ABHY):** It is a **central sector scheme for sustainable management of groundwater with community participation.** It envisages people’s participation through the formation of ‘Water User Associations’, preparation & implementation of Gram-panchayat-wise water security plans, etc. It is being implemented by the Ministry of Jal Shakti. The scheme is being funded by the GoI and the World Bank on 50:50 basis. **The identified states for the scheme: Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan, and Uttar Pradesh.**

**47. Operation Eastern Gateway:** DRI seizes 24.4 kg gold smuggled from **Bangladesh in Operation Eastern Gateway.** A syndicate based in **Bangladesh, Tripura, Assam and West Bengal** in India was smuggling huge quantities of gold from the neighbouring country to India **through Indo-Bangla border in the state of Tripura.** Therefore,

**The Directorate of Revenue Intelligence (DRI) launched an operation codenamed ‘Operation Eastern Gateway’,** which involved developing the intelligence over a substantial period of time to bust the smuggling modus operandi.

**48. Asian Games:** The Asian Games, also known as Asiad is a **continental multi-sport event held every four years among athletes** from all over Asia. The Games were regulated by the **Asian Games Federation (AGF) from the first Games in New Delhi, India, until the 1978 Games.** Since the 1982 Games, they have been organized by the Olympic Council of Asia (OCA). The Games are recognized by the International Olympic Committee (IOC) and are **described as the second largest multi-sport event after the Olympic Games. The first-ever Asian Games were held in New Delhi in 1951.** India is a founder member of Asian Games and also the host of the first Asian Games. **India along with Japan is the only country to have won at-least one gold medal in every event of Asian Games.** India has always ranked in the top 10 in the medals tally in Asian Games, except in the 1990 games.

**49. Rail Kaushal Vikas Yojana:** The Ministry of Railways launched **Rail Kaushal Vikas Yojana (RKVY) under Pradhan Mantri Kaushal Vikas Yojana.** This is a skill development programme, where training will be provided to youth with a special focus on jobs that are relevant to the Railways. **The training will be provided in four trades viz. Electrician, Welder, Machinist and Fitter and other trades will be added by zonal railways and Production units based on regional demands and needs assessment.** Training will be provided to apprentices under the Apprentice Act 1961. **Objectives:** To **impart training skills** to the youth in various trades to bring qualitative improvement and **to train 50,000 candidates over the next three years.**

**Eligibility:** Candidates who are **10th passed and between 18-35 years shall be eligible to apply.** Participants in the scheme shall however have no claim to seek employment in Railways on the basis of this training.

**50. Data embassies:** Recently, the government announced the setting up of **Data embassies in its budget 2023-24**. The government may allow only non-personal datasets to be stored in data embassies.

Data Embassies are a set of servers that store one country's data and are under that country's jurisdiction while being located in another country. **It is a physical data centre of trusted nations which enjoy diplomatic immunity from local laws. Estonia was the first country to establish a data embassy at Luxembourg in 2017.**

**51. All India Domestic Workers survey:** Recently Labour bureau has undertaken an All India Domestic Workers survey.

**This is the first-ever such survey in independent india which was initiated in 2021.** The survey would cover all states and union territories, covering **1.5 lakh households in 742 districts.** **The main objectives of the survey are:**

- Estimate the number/proportion of domestic workers at the national and state level.
- Household estimates of live-in/live-out DWs.
- The average number of DWs engaged by different types of households.

**52. KAVACH-2023:** KAVACH-2023 is a unique kind of national hackathon jointly conducted by MoE's Innovation Cell, AICTE, Bureau of Police Research and Development (BPR&D, MHA) and Indian Cyber Crime Coordination Centre (I4C, MHA) to identify innovative ideas and technological solutions for addressing the cyber security and cybercrime challenges of the 21st century faced by our Law Enforcement Agencies and common citizens. This will be done by identifying innovative ideas and technological solutions given by the participating students and start-ups. **KAVACH-2023 will be conducted in two phases and total prize money worth Rs 20 lakh will be awarded to the winning teams.**

**53. EX DHARMA GUARDIAN:** The 4th edition of joint military exercise, **"EX DHARMA GUARDIAN", between India and Japan is being conducted at Camp Imazu in Shiga province, Japan.** Exercise Dharma Guardian-2022 is an annual training event.

The scope of this exercise **covers platoon level joint training on operations in jungle and semi urban/urban terrain.** Special emphasis is being laid on enhancing tactical skills to fight global terrorism and on enhancing inter-operability between the forces and to promote Army to Army relations

**54. Rail Post Gati Shakti Express Cargo Service:** Indian Railways and India Posts have formally launched **Rail Post Gati Shakti Express Cargo Service, Joint Parcel Product of Railways and India Post.** It is an initiative of partnership between Indian Railways and India Posts in providing seamless logistics for the services sector in the country. **This is in compliance with the Budget Announcement of FY 2022-23.**

**Salient Features for Customers:** Door step Pick-Up and Delivery, Flexibility of Quantum of Load, Time Tabled Service, Safe Transmission, Insurance, Affordable Tariff, Single Point of Contact and a mobile Application.

**55. G20 Culture Group meeting:** Ministry of Culture is organising the First G20 Culture Group (CWG) meeting in **Khajuraho, Madhya Pradesh.** The working group will have four meetings and they will be held in Khajuraho, Bhubaneshwar, and Hampi. **The theme of the Khajuraho meet is "Protection and Restitution of Cultural Property".**

**Key facts about Khajuraho:** Khajuraho is an ancient city known for its majestic temples and elaborate sculptures. **The Khajuraho Group of Monuments is a UNESCO World Heritage Site which was constructed by the Chandela Dynasty between 950-1050 AD.** These monuments are built in **Nagara-style architecture and ornamented with intricate and detailed sculptures.** The monuments include Hindu and Jain temples. According to historical records, there were 85 temples in the temple site in Khajuraho, covering 20 square kilometres, in the 12th Century AD.

**56. Investor Education and Protection Fund Authority:** IEPFA will organise a **State Level Conference on Financial Literacy in association with the Department of Tourism in Aizawl.**

The authority was established in 2016 under the Companies Act, of 2013. The Authority is

entrusted with; The responsibility of administration of the Investor Education Protection Fund (IEPF). Make refunds of shares, unclaimed dividends, matured deposits/debentures etc. to investors and promote awareness among investors.

**Nodal Ministry: Ministry of Corporate Affairs**

**57. Yakshagana:** Yakshagana is a **traditional folk dance form popular in Coastal Karnataka**

It is a rare combination of dance, music, song, scholarly dialogues and colourful costumes.

**Traditionally, men portray all roles, including the female ones, though women are now part of Yakshagana troupes.** A typical troupe consists of 15 to 20 actors and a Bhagawatha, who is the master of ceremonies and the main storyteller.

The Act: **Each performance typically focuses on a small sub-story (known as 'Prasanga') from ancient Hindu epics of Ramayana or Mahabharata.** Costumes used in Yakshagana are very unique and elaborate. Large size headgear, coloured faces, elaborate costumes all over the body and musical beads on the legs (Gejje).

**58. GST Appellate Tribunal (GSTAT):** The GST Council recently accepted the Group of Ministers' (GoM) recommendations on long pending constitution of GST appellate tribunal in the country

**The CGST Act 2017, in Section 109 mandates for the constitution of a GSTAT and its Benches.**

The GSTAT will be the specialized appellate authority for resolving disputes under the GST laws.

**Composition:** The GST Tribunal will have one principal bench in **New Delhi** and as many benches or boards in states as decided by each state, subject to approval of the council.

**North-eastern states could opt for one bench for 2-3 states and an additional bench for very far-flung areas.** The principal bench and state boards would have two technical and two judicial members each, with equal representation from the Centre and states. All four members would not sit for hearing each case. It depends on the threshold or value of dues involved.

**59. National Green Tribunal:** The NGT has been established under the **National Green Tribunal Act 2010**. NGT is mandated to make disposal of applications or appeals finally within 6 months. **The Tribunal comprises the Chairperson, the Judicial Members, and Expert Members.**

They shall hold office for a **term of 5 years** and are not eligible for reappointment.

The Chairperson is appointed by the **Central Government in consultation with the Chief Justice of India (CJI)**. A Selection Committee shall be formed by the central government to appoint the Judicial Members and Expert Members. There are to be at least 10 and a maximum of 20 full-time Judicial members and Expert Members in the tribunal.

**Powers & Jurisdiction:** Established for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources.

It has **appellate jurisdiction to hear appeals as a Court**. The Tribunal is not bound by the procedure laid down under the Code of Civil Procedure, 1908, but shall be guided by principles of natural justice.

**60. National Organ and Tissue Transplant Organisation:** NOTTO is set up under **Directorate General of Health Services, Ministry of Health and Family Welfare, located in New Delhi.**

National Network division of NOTTO functions as apex centre for all India activities for procurement, distribution and registry of organs and tissues donation and transplantation in the country. **It has two divisions:**

- a. National Human Organ and Tissue Removal and Storage Network.
- b. National Biomaterial Centre.

**61. Chhatrapati Shivaji:** The founder of the Maratha Kingdom, **Shivaji was born to be a natural leader and fighter on 19th February, 1630** in the prestigious Shivneri Fort. He was known as the **Father of Indian Navy**, Shivaji was the first to realise the importance of having a **naval force, and therefore he strategically established a navy and forts at the coastline to defend the Konkan side of Maharashtra.** The secular ruler was very accommodating of all

religions. He had numerous Muslim soldiers in his army. Shivaji was a dependable supporter of women and their honour. Anyone under his rule caught violating woman's rights was severely punished. He had a council of ministers (Asht Pradhan) to advise him on the matters of the state but he was not bound by it. **He was called as the 'Mountain Rat' and was widely known for his guerrilla warfare tactics.** He was called so because of his awareness in geography of his land, and guerrilla tactics like raiding, ambushing and surprise attacks on his enemies.

**62. Gorakhpur Nuclear Power Plants:** The Government is going to set up north India's first nuclear plant in Haryana. **It is located at Gorakhpur village of Fatehabad district in Haryana,** which is about 150 km north of the national capital. **It will have two units of 700 MWe capacity each of Pressurised Heavy Water Reactor (PHWR) indigenous design.**

Pressurized Heavy Water Reactor (PHWR): It is a nuclear power reactor, commonly using unenriched natural uranium as its fuel, that uses heavy water (deuterium oxide D<sub>2</sub>O) as its coolant and moderator. The heavy water coolant is kept under pressure, allowing it to be heated to higher temperatures without boiling, much as in a typical pressurized water reactor.

**63. Bandipur Tiger Reserve :** It was established in the 1930s as a wildlife sanctuary, which became a tiger reserve in 1973 under Project tiger. It is situated in two contiguous districts (Mysore and Chamarajanagar) of Karnataka and located at the tri-junction area of Karnataka, Tamil Nadu and Kerala.

**Bandipur Tiger Reserve is surrounded by: Nagarhole Tiger Reserve (Tamil Nadu) in the North West (Kabini Reservoir separates the two). Mudumalai Tiger Reserve (Tamil Nadu) in the South. Wayanad Wildlife Sanctuary (Kerala) in the South West.** This area has the River Kabini in its north and River Moyar in its south. Along with River Nugu, that flows across it.

**Flora:** It comprises diverse vegetation of dry deciduous to tropical mixed deciduous. It includes rosewood, Indian kino tree, sandalwood, Indian laurel, clumping bamboo.

**Fauna:** It is a shelter for the largest population of wild Asian elephants in South Asia. It comprises other mammals such as Bengal tiger,

gaur, sloth bear, golden jackal, dhole and four-horned antelope etc.

**64. Sagar Parikrama:** It is an initiative of Government of India, aiming to resolve the issues of the fishers and other stakeholders and facilitate their economic upliftment through various fisheries schemes and programs being implemented by the Government of India such as PMMSY. Sagar Parikrama is an evolutionary journey envisaged in the sea across the coastal belt demonstrating solidarity with all fisherfolk, fish farmers and concerned stakeholder's as a spirit of 75th Azadi Ka Amrit Mahotsav. Nodal Ministry: Ministry of Fisheries, Animal Husbandry & Dairying.

**Phase III program of 'Sagar Parikrama' will cover mainly the coastal areas of Maharashtra and Gujrat.** The Phase -I and Phase- II programmes of 'Sagar Parikrama' has been organized in March 2022 and September 2022 respectively.

**65. National Conference on Agriculture for Zaid (Summer) Campaign:** Union Agriculture and Farmers Welfare Minister chaired the conference. **The objective of the Zaid conference is to review and assess the crop performance during the preceding crop seasons and fix crop-wise targets for the summer season in consultation with State Governments.**

**Zaid crops:** Zaid or summer crops are grown in the short season between Kharif and Rabi crops, between March and July. These crops are mostly grown on irrigated lands and therefore, the farmers do not wait for the monsoon. **Zaid crops require warm soil and high temperatures (cooling at night) to grow.** They require warm, dry weather as a vital growth period and longer day length for flowering. Most of the vegetables and hybrid cereals are grown in the zaid season.

**Major crops:** Paddy, corn; pumpkin, cucumber, tomato; almonds, peanuts, cashews; Gram, lentils, etc. **Zaid crop is significant for farmers as it gives fast cash to the farmers and is also known as a gap-filler between two chief crops, Kharif and Rabi.**

**66. Exercise Dustlik 2023:** It is a military-to-military exchange program between the Indian Army and Uzbekistan. It is the fourth edition of the biennial training Exercise. The Indian contingent

will be represented by the 14th Battalion, The GARHWAL RIFLES, part of Western Command in this bilateral exercise.

The **Uzbekistan Army will be represented by troops of the North Western Military District of Uzbekistan Army.** This joint exercise is aimed at enhancing military capability to undertake multi-domain operations in a Sub Conventional scenario under United Nations Mandate.

**67. NAVDEX 23 and IDEX 23: INS Sumedha reached Abu Dhabi, United Arab Emirates to participate in Naval Defence Exhibition – NAVDEX 23 and International Defence Exhibition – IDEX 23.** IDEX and NAVDEX, and the International Defense Conference are organized by the **Abu Dhabi National Exhibitions Company (ADNEC), in cooperation with the Ministry of Defense** and the General Command of the UAE Armed Forces. IDEX/NAVDEX takes place biennially.

The exhibitions showcase the latest technologies and innovations in the global defense sector, support the growth of UAE's defense industry, and forge new relationships between major international companies. **IDEX is the only international defense exhibition and conference in the MENA (Middle East and North Africa region) region.**

#### **India and UAE Defense Relations:**

- Desert Eagle II, air force exercise.
  - GULF STAR-1, naval exercise.
- 68. INS Nireekshak:** The Chief of Naval Staff awarded 'on the spot' Unit Citation to the **INS Nireekshak, a first in Indian Navy for deep sea diving and undertaking salvage operations.** This is the deepest salvage carried out in the country's waters. **Nireekshak is a Dive Support and Submarine Rescue Vessel of Indian Navy.** Built by Mazgaon Shipbuilders in 1985, the ship has been in service with the Navy since 1989 and was commissioned in the year 1995. **INS Nireekshak has been part of various diving operations and holds the record for the deepest dive carried out in the country to a depth of 257 m.**
- 69. Jaadui Pitara:** Union Education Minister recently launched an **innovative learning**

**material for foundational years of children called "Jaadui Pitara".**

The 'Jaadui Pitara' or 'Magic Collection is a play-based learning material for children in the age group of three to eight years. It has been designed on the motto of "learning through play", as envisaged in the new National Education Policy (NEP). **It comprises of playbooks, toys, puzzles, posters, flashcards, storybooks, and worksheets,** as well as reflecting the local culture, social context, and languages. It is developed under the curricular goals of National Curriculum Framework for Foundational Stage (NCF-FS) as recommended by the NEP 2020. **The resources on 'Jaadui Pitara' will be digitally available on DIKSHA platform – portal and mobile app.** The pitara is available in **13 Indian languages.**

**70. UPI-PAYNOW linkage between India and Singapore:** Prime Minister Shri Narendra Modi and Prime Minister of Singapore have launched **real time payment linkage between the Unified Payments Interface (UPI) of India and PayNow of Singapore.**

**Singapore is the first country with which cross border Person to Person (P2P) payment facility has been launched.** This will help the Indian diaspora in Singapore, especially migrant workers/students and bring the benefits of digitalisation and FINTECH to the common man through **instantaneous and low-cost transfer of money from Singapore to India and vice-versa.** **Acceptance of UPI payments through QR codes is already available in selected merchant outlets in Singapore.**

**71. Suposhit Maa Abhiyaan:** The Speaker of Lok Sabha, **Om Birla launched the Suposhit Maa Abhiyan- a scheme to ensure nutritional support to pregnant women and girls in Kota, Rajasthan.** (the Speaker's constituency). **Keeping newborn and pregnant women healthy is the main objective of the 'Suposhit Maa Abhiyaan'.** Under this Abhiyan, 1,000 women would be given food items for one month. At the same time, the health of the child, including medical examination, blood tests, medicines, delivery, would be covered.

The identified women would be required to register on a website for adoption. **Only one**

**pregnant woman would be adopted from a family.**

**72. Operation Golden Dawn:** The Directorate of Revenue Intelligence (DRI) officials busted a **major international gold smuggling racket and arrested 10 members of the gang, including seven Sudanese nationals, in a pan India operation called "Operation Golden Dawn."** Around 101.7 kg of gold worth ₹51 crore was also seized.

The syndicate used **the Indo-Nepal border route and the smuggled gold was being transported to Mumbai** via train or air route after being brought into Bihar from Nepal.

**73. International Mother Language Day:** UNESCO declared **21st February as International Mother Language Day in 1999 and the World has been celebrating the same since 2000.**

The day also commemorates a **long struggle by Bangladesh to protect its mother language Bangla.** The aim is to protect the diverse culture and intellectual heritage of different regions of the world. **The world has over 7,000 languages whereas India alone has about 22 officially recognized languages,** 1635 mother tongues, and 234 identifiable mother tongues.

**74. Sansad Ratna Awards:** The Sansad Ratna Awards were instituted in 2010, inspired by the **teachings of former President APJ Abdul Kalam,** who launched the first edition of the Award function in Chennai. The jury committee comprises "eminent Parliamentarians and (members of) civil society". **The nominations were based on an MP's cumulative performance in Parliament.**

Factors that the decision is based on include questions asked, private members' Bills introduced, debates initiated, attendance, funds utilised, etc. The performance data of the members have been sourced from information provided by PRS Legislative Research. The Sansad Ratna Awards are not given **by the Government of India but by The Prime Point Foundation.**

**75. Jute Packaging Act, 1987:** Recently, the Government of India **approved Reservation norms for the mandatory use of jute in the packaging of rice, wheat and sugar for the Year 2022-23.**

The reservation norms under JPM Act provide for **direct employment to 3.70 lakh workers and protect the interest of approximately 40 lakh farm families in the jute sector.**

The Mandatory norms for full reservation for packaging of food grains and 20% reservation for packaging of sugar in jute bags will be a big boost for West Bengal. **75% of the total production of the Jute Industry is Jute Sacking Bags of which 85% is supplied to the Food Corporation of India (FCI) and State Procurement Agencies (SPAs) and remaining is exported/sold directly.**

**76. Jute:** Jute is one of the most important natural fibres after cotton in terms of cultivation and usage. **India is the largest producer of jute followed by Bangladesh and China.** It is mainly grown in eastern India because of the rich alluvial soil of the Ganga-Brahmaputra delta. **In India, major jute-producing states include West Bengal, Bihar, Odisha, Assam, Andhra Pradesh, Meghalaya and Tripura.**

Highly profitable commodity: Its leaves are sold in markets as a vegetable even before the crop is harvested. The inner stem can be used to manufacture paper while the outer layer produces fibre. **It is known as Golden Fibre**

**Climatic conditions required for its growth:**

**Temperature:** Between 25-35°C

**Rainfall:** Around 150-250

**Soil Type:** Jute can be raised on all kinds of soils from clay to sandy loam, but loamy alluvial soils are best suited.

**77. PRAGATI Platform:** The Prime Minister of India chaired the 41st edition of the PRAGATI meeting. PRAGATI (Pro-Active Governance and Timely Implementation) Platform was launched in March 2015. **The main objective of the initiative is to introduce e-transparency and e-accountability with real-time presence and exchange among the key stakeholders.** The platform aimed at addressing the common man's grievances and simultaneously monitoring and reviewing important programmes and projects of the Government of India and projects selected by State Governments.



It also **boosts the principle of cooperative federalism**. It is a **3-tier system (Prime Minister's Office (PMO), Union Government Secretaries, and Chief Secretaries of the States)**.

**78. Jaipur declaration:** The 18th UIC World Security Congress, jointly organized by **Railway Protection Force (RPF) and the International Union of Railways (UIC)**, concluded today with the **adoption of the Jaipur Declaration**. Jaipur declaration" outlining an actionable agenda for UIC to explore innovative approaches that can help global Railway organizations achieve their long-term goal of safety and security. The declaration highlighted the commitment of UIC to work towards providing a **more safe and secure rail network across the globe**, by also fully activating the Asia-Pacific, Latin America and African regional assemblies by 2025.

**79. Avian influenza:** Avian Influenza (H5N1) was detected by the **ICAR-National Institute of High Security Animal Disease, Bhopal from the samples received from Government Poultry Farm at Bokaro, Jharkhand**. Avian influenza or bird flu refers to the disease caused by infection with avian influenza Type A viruses. Infrequently, the virus can infect mammals from birds, a phenomenon called spillover, and rarely can spread between mammals.

**Symptoms in Humans:** Range from mild to severe influenza-like illnesses such as **fever, cough, sore throat, muscle aches, nausea, abdominal pain, diarrhea, vomiting**. Human-to-human transmission of the H5N1 virus is very rare. Evidence suggests that some antiviral drugs can reduce the duration of viral replication and improve prospects of survival.

Previously in 2019, **India was declared free from Avian Influenza (H5N1), which had also been notified to the World Organization for Animal Health (OIE)**.

**80. Phosphor-Gypsum:** The National Highways Authority of India along with other departments is going to take up field trials on NHAI projects for use of **Phosphor-Gypsum in National Highway construction**.

Phosphorus is a mineral critical to all life on Earth. As a requirement of all biological beings, it is a cornerstone of nutrition for plants,

animals, and people. **Phosphogypsum is a waste by-product from the processing of phosphate rock in plants producing phosphoric acid and phosphate fertilizers, such as superphosphate**. It is used in agriculture for soil amendment or as fertilizer, as well as in the brick and cement industry, and road construction.

**81. Ayushman Bharat Digital Mission:** The National Health Authority (NHA) under its flagship Ayushman Bharat Digital Mission (ABDM) introduced the Scan and Share (QR-code-based) service for faster OPD registrations in 2022. ABDM aims to **develop the backbone to support the integrated digital health infrastructure of the country**. It is a component of the Ayushman Bharat scheme. It is a flagship program of India that was introduced by the National Health Policy 2017's recommendations to achieve the goal of Universal Health Coverage (UHC). **It was launched in September 2021 by the Prime Minister**.

**Components of the Scheme:**

- Ayushman Bharath Health Account Number
- Healthcare Professionals Registry (HPR)
- Health Facility Registry (HFR)
- ABHA Mobile App
- Unified Health Interface (UHI)
- ABDM sandbox

**82. Borthekera:** A medicinal plant commonly called '**Bor Thekera**' in the Assamese language, traditionally forbidden for raw consumption, has been found to protect from heart diseases. **It is an evergreen tree related to the more familiar purple mangosteen (Garcinia mangostana)**. The tree is endemic to the **south-eastern regions of Asia such as parts of Bangladesh and north-eastern parts of India**. The sun-dried slices of the ripe fruit are used for culinary and medicinal purposes and are known to have therapeutic properties like **anti-inflammatory, anthelmintic, antibacterial, antifungal, antidiabetic, hypolipidemic, nephroprotective, and even neuroprotective activity**. The ripe fruit is eaten cooked or raw. Sun-dried slices are much valued and used for preparing delicacies like "**tenga diya masor jol**" meaning Assamese sour fish curry.

**83. The Food Safety and Standards Authority of India:** The Authority has now framed a comprehensive group standard for 15 types of millets specifying eight quality parameters to ensure the availability of good quality millets in domestic and global markets. The group standard applies to the millets including **Buckwheat (Kuttu), Kodo Millet (Kodo), Little Millet (Kutki), Brown top (Korale) and Job's tears (Adlay).**

It is a **statutory body established under the Food Safety and Standards Act, 2006 (FSS Act).** FSS Act, of 2006 consolidated various acts & orders that had earlier handled food-related issues in various Ministries and Departments.

**Nodal ministry: Ministry of Health & Family Welfare.**

**84. The Foundational Literacy and Numeracy report:** Recently, Chairman, Economic Advisory Council to the Prime Minister (EAC-PM) has released the report. This edition of the report **highlights language as a critical foundational skill and its importance in acquiring early literacy.** It was prepared by the Institute for Competitiveness, India at Harvard Business School. It captures the fundamental concepts children require to **become skilled readers and highlights distinct challenges faced in a multilingual environment.**

**Significance of Report:** The report is a benchmark for states and union territories to track their performance in achieving universal foundational learning by 2026-27. The report's findings cover **multi dimensional factors like the role of nutrition, access to digital technology and language-focused instructional approach.**

**85. National Geospatial Policy 2022:** It is a **citizen-centric policy based on Geo-Spatial technology, which seeks to strengthen the Geospatial sector to support national development and a thriving information economy.** The policy is aimed to set up high resolution topographical survey and mapping, with a high-accuracy Digital Elevation Model (DEM) by 2030.

**Vision and Goals:** It aims to make India a World Leader in Global Geospatial space.

To develop **Geospatial infrastructures, Geospatial skill and standards, Geospatial businesses.**

**Institutional framework:** A Geospatial Data Promotion and Development Committee (GDPDC) at the national level shall be the apex body for formulating and implementing strategies related to promotion of the Geospatial sector. GDPDC would replace and subsume the functions and powers of the **National Spatial Data Committee (NSDC) constituted in 2006 and GDPDC constituted in 2021.** Department Of Science & Technology shall continue to be the nodal Department of the Government and GDPDC shall make suitable recommendations to DST in the discharge of its functions relating to the Geospatial regime

**86. Women 20:** W20 (Women 20) is an **official engagement group under the G20 which was established during the Turkish presidency in 2015.** Its primary objective is to ensure that **gender considerations are mainstreamed into G20 discussions** and translated into the G20 Leaders' Declaration as policies and commitments that **foster gender equality and women's economic empowerment.**

W20 India took over the presidency from W20 **Indonesia in December 2022. There are five priority areas of W20 under India's Presidency** which include, Women in Entrepreneurship, Women Leadership at Grassroots, Bridging the Gender Digital Divide, Education & Skill Development and Women & Girls as change makers Climate Resilience Action. **The city of Aurangabad is all set to host the first Inception Meeting of W20.**

**87. Exercise Desert Flag VIII:** It is an annual **multinational large-force employment warfare exercise hosted by the UAE Air Force.**

The IAF would be participating with **five Light Combat Aircraft, LCA Tejas and two C-17 Globemaster III aircraft.**

**Participants:** Air Forces from UAE, France, Kuwait, Australia, the UK, Bahrain, Morocco, Spain, the Republic of Korea, and the USA would also be participating.

**India's Joint Military Exercises with the UAE:**

With the UAE, India has In-UAE

**BILAT** (bilateral naval exercise) as well as **Desert Eagle-II** (bilateral air force exercise).

**88. Unying Festival:** The festival of Unying is celebrated to herald the season of cultivation, the beginning of the **Adi community's New Year, arrival of spring seasons as well as a great way to strengthen the bond among the community.**

**89. Adi community:** They are believed to have come from southern china in the 16th century. **The Adi constitute a major group and inhabit the lower part of the Lower Dibang Valley district, especially the Roing and Dambuk areas of Arunachal Pradesh.** They are experts in making cane and bamboo items.

The Adis are basically **dependent on agriculture. Both wet rice cultivation and shifting cultivation are practised.**

**Solung** (a harvesting festival where animal sacrifices and rituals are performed) and **Aran** (a hunting festival where all the male members of the family go hunting) are two major festivals of the Adi tribes.

**90. International Biotech Conclave 2023:** For the first time since Independence, North East Region is organizing an International Conference on Biotechnology involving over 700 International and National delegates representing over 35 countries.

It is being held along with the **22nd Congress of the International Society for Ethno-pharmacology and the 10th Congress of Society for Ethno-pharmacology.**

**Theme: "Reimagine Ethnopharmacology : Globalisation of Traditional Medicine".**

It is organised at **Imphal in Manipur and being organized by the Institute of Bio-resources and Sustainable Development (IBSD)** in collaboration with Society for Ethno-pharmacology, India and International Society for Ethno-pharmacology, Switzerland.

**91. Institute of Bio-resources and Sustainable Development (IBSD):** IBSD was established in the year 2001 in Imphal under the Department of Biotechnology, Ministry of Science and Technology, Govt. of India.

IBSD Institute is not only serving the people of Manipur in Northeast but also has **three different other entities including its Regional Centre at Gangtok in Sikkim and Research Nodes at Shillong in Meghalaya and at Aizawl in Mizoram.** Since inception, IBSD has been engaged in research activities and numerous outreach programmes to fulfil the mission for "Bioresources development and their sustainable use through biotechnological interventions for the socio-economic growth of the North Eastern Region".

**92. Indian Renewable Energy Development Agency:** IREDA is planning to establish an office in Gujarat's GIFT City to finance Renewable Energy projects in foreign currency. **The office at GIFT City, Gandhinagar, will be classified as an overseas office, allowing the IREDA to avoid foreign exchange hedging costs.**

IREDA is a **Public Limited Government Company established as a Non-Banking Financial Institution in 1987.**IREDA's corporate and registered office housed in New Delhi.

It is a **Mini Ratna (Category- I) Enterprise** under the administrative control of **Ministry of New and Renewable Energy (MNRE).**It is engaged in promoting, developing and extending financial assistance for setting up projects relating to new and renewable sources of energy and energy efficiency/conservation with the motto: **"ENERGY FOR EVER".**

**93. Cyber Surakshit Bharat:** It is first public-private partnership initiative of its kind. It will leverage the expertise of the IT industry in cybersecurity. The founding partners include **leading IT companies such as Microsoft, Intel, WIPRO, Redhat and Dimension Data.** Its knowledge partners include Cert-In, NIC,NASSCOM and FIDO Alliance and premier consultancy firms Deloitte and EY.

It will be operated on **three principles of awareness, education and enablement.**

Ministry/Department: **Ministry of IT and Electronics. Objective:** Spread awareness about cybercrime and building capacity for safety measures for Chief Information Security Officers (CISOs) and frontline IT staff across all government departments.

**94. Banjara Community:** Recently, government of India started year-long celebrations to mark the 284th birth anniversary of Santh Sevalal Maharaj, a spiritual and religious leader of the Banjara community.

**Banjara is made of various groups found throughout India, having roots in Rajasthan, most of them are found in Telangana, Andhra Pradesh and Karnataka states in South India.** They are called Lambada or Lambadi in Andhra Pradesh, Lambani in Karnataka; Gwar or Gwaraiya in Rajasthan. They have permanently abandoned their nomadic lifestyle and settled in their settlements called Tandas.

They speak **Gor Boli** also called **Lambadi** which belongs to the **Indo-Aryan Group of Languages**. Lambadi has no script. **Banjara people celebrate the festival of Teej during Shraavanam (in the month of august).** In this festival young unmarried Banjara girls pray for a good groom. Fire dance and Chari are the traditional dance forms of the banjara people. **They are listed in various States as SCs, ST, OBC and Vimukta Jati/denotified tribes.**

**95. 14th Rashtriya Sanskriti Mahotsav:** President of India addressed the 14th Rashtriya Sanskriti Mahotsav at Bikaner, Rajasthan.

It is an **annual flagship festival of the Ministry of Culture**. Organized in different states of India to promote National Unity and integrity through cultural exchange. **It was Started in 2015 to exhibit the rich cultural heritage of the country**

**Participation:** All the seven zonal Cultural Centres and academies under the Ministry of Culture.

**96. National Science Day (NSD):** The day is celebrated annually on **28th February to commemorate the discovery of the Raman Effect by Nobel laureate and Physicist CV Raman on this day in 1928.**

Since 1987, the event has been celebrated all over the country in **schools, colleges, universities and other academic, scientific, technical, medical and research.** The purpose of celebrating this day is to enhance **scientific temper, popularisation of science and encourage innovative activities** by infusing

scientific temperament in the masses and to create a positive scientific research culture. **The Nodal Agency to support** celebration of NSD is the National Council for Science & Technology Communication (NCSTC) of the Ministry of Science and Technology. The theme of this year's National Science Day was '**Global Science for Global Well-being**'.

**97. Global System for Mobile Communication:** GSM Association (GSMA) has conferred Government Leadership Award 2023 to India for **implementing best practices in telecom policy and regulation.** GSMA, which represents more than **750 mobile operators and 400 companies in the telecom ecosystem, recognizes one country every year.** India was declared winner in the ceremony held at **Mobile World Congress Barcelona.**

GSM is an abbreviation for Global System for Mobile Communications and is a cellular technology that is digital. It is used for transmitting mobile voice and data services. It is the most widely used cell phone standard in the world, with over 90% of the global market share. **It was founded in 1984.** The main goal of GSMA is to **promote innovation and cooperation in the mobile industry.** GSM phones can be used anywhere in the world. They will work on any GSM network, regardless of the country or region. GSM uses a technology called Time Division Multiple Access (TDMA).

**98. VAIBHAV Fellowship Scheme:** Vaibhav Fellowship aims at improving the research ecosystem of **India's Higher Educational Institutions by facilitating academic and research collaborations between Indian Institutions and the best institutions in the world** through mobility of faculty/researcher from overseas institutions to India. The best of Diaspora minds will collaborate with domestic Minds to deliver world class projects and products.

The applicant should be **Non-Resident Indian (NRI), Persons of Indian Origin (PIO) or Overseas Citizen of India (OCI)** and she or he must have obtained Ph.D/M.D/M.S degree from a recognized University. The applicant must be a **researcher engaged in an overseas academic / research / industrial organization with a proven track record of research and development** and plan to work for a minimum of 1 month to a maximum of 2 months a year in a research institution/ academic institution in India.

## Practice MCQs on Current Affairs- Feb 2023

**Q.1) With reference to the PM CARES Fund, consider the following statements:**

1. The fund consists of both voluntary contributions and budgetary allocations.
2. Prime Minister is the ex-officio Chairman of the PM CARES Fund.

**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

**Ans (b)** The Prime Ministers Citizen Assistance and Relief in Emergency Situations Fund (PM CARES Fund) was created on 28 March 2020, as a Public Charitable Trust.

- Prime Minister is the **ex-officio Chairman of the PM CARES Fund.**
- Minister of Defence, Minister of Home Affairs and Minister of Finance, Government of India are ex-officio Trustees of the Fund.
- The fund consists entirely of **voluntary contributions from individuals/organizations and does not get any budgetary support.**
- Donations to PM CARES Fund would qualify for **80G benefits for 100% exemption under the Income Tax Act, 1961.**  
Donations to PM CARES Fund will also qualify to be counted as Corporate Social Responsibility (CSR).

**Q.2) Consider the following statements Tax buoyancy and Tax Elasticity:**

1. Tax Elasticity refers to the responsiveness of tax revenue growth to changes in GDP.
2. Tax buoyancy refers to changes in tax revenue in response to changes in tax rate.

**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

**Ans (d)** Tax buoyancy explains the relationship between the **changes in government's tax revenue growth and the changes in GDP.** It refers to the responsiveness of tax revenue growth to changes in GDP.

**What is Tax Elasticity:** It refers to changes in tax revenue in response to changes in tax rate.

**Q.3) With reference to the Economic Survey, consider the following statements:**

1. It is prepared by the Economics Division of the Department of Economic Affairs in the Finance Ministry.
2. The first Economic Survey in India was presented in the year 1991-92.

**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

**Ans (a)** It is the **flagship annual document of the finance ministry** that contains a detailed analysis of the economic development of the country.

- It analyses the whole **macroeconomics of the country in the past year** and provides an outline for the next financial year.
- The Survey has **two parts--one, one consists of the economic challenges that the country is facing and the second is the review of the year gone by.**

The first Economic Survey in India was presented in the year 1950-51. From 1964 onwards, it has been delinked from the Budget.

**Q.4) With reference to the Yaya Tso Lake, consider the following statements:**

1. It is located in the Ladhak Region.

2. It is a large breeding site for the black-necked crane.

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

Ans (c)

Q.5) Haifa port, recently seen in the news lies in which of the following country?

- (a) Iraq
- (b) Saudi Arabia
- (c) Israel
- (d) Somalia

Ans (c) it is located in northern Israel, adjacent to the city of Haifa along the Mediterranean sea.

- It is also located on the busy Suez Canal shipping route.

The Haifa port is one of the two biggest commercial ports in Israel

Q.6) Consider the following statements regarding Sickle cell anemia:

1. It is a communicable disease caused by a virus.
2. People with this disease have atypical hemoglobin which can slow or block blood flow.

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

Ans (b) Sickle cell anemia: It is an inherited blood disorder which affects hemoglobin, the molecule in red blood cells that delivers oxygen to cells throughout the body.

- People with this disease have a typical hemoglobin molecules called hemoglobin S, which can distort red blood cells into a sickle, or crescent, shape.
- The cause of Sickle cell disease is a defective gene, called a sickle cell gene.
- A person will be born with sickle cell disease only if two genes are inherited—one from the mother and one from the father.

The only cure for this disease is bone marrow or stem cell transplantation

Q.7) With reference to the Lab-grown diamond, consider the following statements:

1. It is produced under low pressure and the high-temperature method.
2. Graphite is used as the diamond seed in the production of these diamonds.

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

Ans (b) There are multiple ways in which LGDs can be produced.

- High pressure, high temperature” (HPHT) method is the most common and cheapest
- In this method, extremely heavy presses that can produce up to 730,000 psi of pressure under extremely high temperatures of at least 1500 celsius are applied.
- Usually, graphite is used as the “diamond seed” and when subjected to these extreme conditions, the relatively inexpensive form of carbon turns into one of the most expensive carbon forms.

Chemical Vapor Deposition (CVD) and explosive formation create what is known as detonation nanodiamonds.

Q.8) With reference to the Caesium-137, consider the following statements:

1. It is produced by nuclear fusion technology.
2. It releases high-energy beta-gamma radiation.

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

Ans (b) Recently, a Caesium-137 capsule lost in transit was discovered in Western Australia using specialised detection equipment that detected radiation.

- It is the most common radioactive form of caesium.

- It is produced by nuclear fission which is also one of the **byproducts of nuclear fission processes** in nuclear reactors and nuclear weapons testing.
- This radioactive metal has a **half-life of 30.05 years** – meaning in three decades it will have half of its original activity.  
**Caesium-137 can cause serious illness when touched, leading to burns and acute radiation sickness.**

**Q.9) Consider the following statements about National Statistical Commission**

1. It is a statutory body and was the outcome of Rangarajan Commission.
2. The chief economic adviser (CEA) is the secretary of NSC.

**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

**Ans (a)** It is a **statutory body** and was the outcome of **Rangarajan Commission**. The Chief Statistician of India is the secretary of NSC. It works **under the office of CSO** (Central Statistical Office) and National Sample Survey Organisation (NSSO).

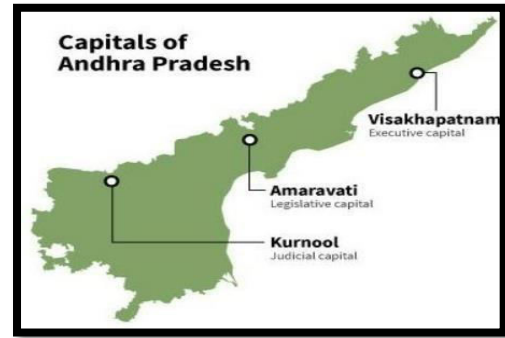
**Q.10) Arrange the following cities, which are occasionally featured in news, from North to South:**

1. Amaravati
2. Visakhapatnam
3. Kurnool

**Select the correct answer using the code below:**

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

**Ans (b)**



**Q.11) Which of the following places has the world's highest concentration of Indian one-horned rhinos?**

- (a) Coringa Wildlife Sanctuary
- (b) Pobitora Wildlife Sanctuary
- (c) Bor Wildlife Sanctuary
- (d) Bhitarkanika Wildlife Sanctuary

**Ans (b)**

**Q.12) Consider the following statements regarding the distribution of Wetlands in India.**

1. According to National Wetland Inventory and Assessment compiled by ISRO, wetlands are spread over more than 10 percent of the total geographical area of India.
2. In state-wise distribution of wetlands, West Bengal is at the top position.
3. Inland-natural wetlands account for maximum share compared to coastal-natural wetlands.

**Which of the above statements is/are correct?**

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

**Ans (c)** Globally, wetlands cover 6.4 per cent of the geographical area of the world. **In India, according to the National Wetland Inventory and Assessment compiled by the Indian Space Research Organisation (ISRO), wetlands are spread over 1,52,600 square kilometres (sq km) which is 4.63 per cent of the total geographical area of the country.** Of the 1,52,600 sq km, inland-natural wetlands account for 43.4% and coastal-natural wetlands 24.3%.

**India has 19 types of wetlands.** In state-wise distribution of wetlands, **Gujarat is at the top with 34,700 sq km** (17.56% of total geographical area of the state), or 22.7% of total wetlands areas of the country thanks to a long coastline. It is **followed by Andhra Pradesh** (14,500 sq km),

**Uttar Pradesh** (12,400 sq km) and **West Bengal** (11,100 sq km).

**Q.13) Consider the following statements.**

1. Massive stars with masses around 10-25 times the mass of the Sun collapse and shrink to form neutron stars.
2. A small number of neutron stars become magnetars which possess intense magnetic field.
3. There are millions of magnetars been spotted within the Milky Way Galaxy.

**Which of the above statements is/are correct?**

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

**Ans (b)** During the course of their evolution, massive stars – with masses around 10-25 times the mass of the Sun – eventually collapse and shrink to form very compact objects called neutron stars. **A subset of these neutron stars are the so-called magnetars which possess intense magnetic fields.** These are highly dense and have breathtakingly high rotation speeds – they have rotational periods that can be just 0.3 to 12.0 seconds.

**Q.14) With reference to the Macrosomia, consider the following statements:**

1. It describes the condition of a newborn with excessive birth weight.
2. Mothers who give birth to such babies will be at risk of postpartum haemorrhage.

**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

**Ans (c)** The mother's body weight: **Obese mothers are more likely to have children with Macrosomia.**

- **Mothers with gestational diabetes:** High blood sugar that arises during pregnancy, this increases to between 15 per cent and 45 per cent of births.
- Being older when pregnant also increases the odds of having a baby with macrosomia.

- **Overdue pregnancies:** Those that run past the typical 40 weeks – also increase the risk of a baby being macrosomic, particularly at 42 weeks or more.
- **Previous pregnancies increase the risk of macrosomia** because, with each successive pregnancy, birth weight increases. Mothers are also at increased risk **of vaginal tears during delivery, which then increases the risk of postpartum haemorrhage** (bleeding).

**Q.15) With reference to the Circuit breaker in trading, consider the following statements:**

1. It is implemented by the Securities and Exchange Board of India (SEBI).
2. It effectively limits how much a stock's value can fall in a trading session.

**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

**Ans (c)** The Securities and Exchange Board of India (SEBI) implemented **index-based market-wide circuit breakers in June 2001.**

- Circuit breakers are triggered to prevent markets from crashing due to a panic-induced sale of stocks.
- This can occur for a variety of reasons, leading to stockholders in the market believing that their stocks are overvalued. As a result, they engage in a sell-off.
- **Circuit breakers temporarily halt trading, thereby halting the sell-off.** Circuit-breakers effectively limit how much a stock's value can fall in a single day/trading session, resulting in a more stable market overall

**Q.16) With reference to the Asiatic black bear, consider the following statements:**

1. It is only found in the state of Arunachal Pradesh.
2. It is categorized as vulnerable species under the IUCN Red List of Threatened Species.

**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

**Ans (b)** The Asiatic black bear is known as the **Moon bear**.

- The Asiatic black bear has **7 subspecies, out of which we find the Himalayan Black Bear subspecies in India.**
- The Asiatic black bear lives in a narrow band stretching from south-eastern Iran to Myanmar, across the Himalayan foothills. **In India, it is found in Arunachal Pradesh, Assam, Sikkim, and the union territory of Jammu and Kashmir. IUCN Red List: Vulnerable, CITES: Appendix I, Wild Life Protection Act 1972: Schedule II**

**Q.17) With reference to the S&P Corporate Sustainability Assessment, consider the following statements:**

1. It serves as the foundation for the S&P Dow Jones Sustainability Index.
2. It considers economic, environmental and social dimensions criteria for giving percentile rankings of the companies.

**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

**Ans (c)** The index **comprises global sustainability leaders as identified by S&P Global through its Corporate Sustainability Assessment (CSA).**

- Corporate Sustainability Assessment was founded in **1999** and serves as the foundation for the S&P Dow Jones Sustainability Index. According to S&P Global, S&P acquired the CSA in 2019, which included the transition of the related ESG ratings and ESG benchmarking teams that now operate out of S&P Global Switzerland.

**Q.18) With reference to Indian economy, which of the following best describes Exit policy**

- (a) Disinvestment policy of Public sector enterprises  
 (b) Policy of reparation of income by multi-national companies  
 (c) Right or ability of an industrial unit or a firm to withdraw from or to close down.

- (d) Export policy that guides direction of exports from India

**Ans (c)** Exit policy means **the policy regarding the retrenchment of the surplus labour force resulting from restructuring of industrial units and workers displaced by the closure of sick units.** Exit may become necessary due to strategic reasons, financial constraints and environmental changes.

**Q.19) Consider the following statements.**

1. During Bhakti movement, many of the poet-saints were preaching for abolishing the Varna system.
2. The Bhakti movement started earlier and got well established first in North India and much later in South India.
3. One school within the Bhakti movement was the Nirguni tradition, according to which God was understood to be universal and formless being.

**Which of the above statements is/are correct?**

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

**Ans (d)** The Bhakti movement, which began in the **7th century in South India**, had begun to spread across north India in **the 14th and the 15th centuries.** The movement was characterized by popular poet-saints who sang devotional songs to God in vernacular languages, with many preaching for the **abolishing the Varna system and some kind of Hindu-Muslim unity.** They emphasized an intense emotional attachment with God.

**Q.20) Consider the following statements.**

1. The minimum support price (MSP) of a crop is different for different states.
2. The Food Corporation of India (FCI) was constituted on the recommendation of the LK Jha Committee.
3. Agricultural wage rate is not considered while setting up of the MSP.

**Which of the above statements is/are correct?**

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

**Ans (a)** The MSP of a crop is the same throughout the country.

- The **Food Corporation of India (FCI)** was constituted in 1965 on the recommendation of the **LK Jha Committee**.

The Ministry of Agriculture claims that the cost of production of cultivation does not only include cash expenditure (as per market) but also the cost of labour (as per market rate). This means that **agricultural wage rate is also considered while setting up of the MSP**.

**Q.21) Consider the following statements.**

1. National Council of Science Museums is an autonomous body under the Ministry of Culture, Government of India.
2. In India all the museums lie under the control of the Ministry of Culture, Government of India.
3. A first-of-its-kind Global Summit on 'Reimagining Museums in India' was organised by Ministry of Culture, Government of India.

**Which of the above statements is/are correct?**

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

**Ans (c)** India is home to **over 1,000 museums representing a rich and diverse blend of the cultural, religious and scientific achievements** that our civilisation has witnessed over the years. These museums do not just lie under the control of the Ministry of Culture. Other Ministries manage the **Railway museums, the crafts and textiles museums, and the food museum, to name a few.**

**Q.22) Consider the following statements regarding Gait analysis.**

1. Gait analysis is a technique in medical care which is used to evaluate and diagnose conditions that affect a person's walking and posture.
2. Gait analysis techniques can be used by forensic sciences experts to identify suspects in criminal cases.

**Which of the above statements is/are correct?**

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2

(d) Neither 1 nor 2

**Ans (c)**

**Q.23) Consider the following statements regarding the Representation of Peoples Act.**

1. The Representation of Peoples Act, 1951 provides a legal framework for the conduct of elections in India.
2. The key provisions of the Representation of Peoples Act, 1950 include allocation of seats in the House of the People and in the Legislative Assemblies and Legislative Councils of States.
3. The Representation of Peoples Act, 1951 does not provide for disqualification of candidates on conviction for certain offences.

**Which of the above statements is/are correct?**

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

**Ans (b)** The Representation of the People Act, 1951 provide for the **conduct of election of the Houses of Parliament and to the House or Houses of the Legislature of each State, the qualifications and disqualifications for membership of those Houses, the corrupt practices and other offences at or in connection with such elections and the decision of doubts and disputes arising out of or in connection with such elections.**

**Q.24) Consider the following statements regarding the Andes Mountains:**

1. The Andes is the second longest above-sea-level mountain range in the world after Himalayas.
2. It consists of a succession of parallel and transverse mountain ranges and of intervening plateaus and depressions.

**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

**Ans (b)** The Andes is the **longest above water mountain range in the world.**

- The Andes Mountains extend over **seven countries**: Argentina (Mount Aconcagua), Bolivia (Huayna Potosi), Chile, Colombia, Ecuador, Peru, and Venezuela, known as Andean States.
- It is about **5,500 miles (8,900 km) long and second only to the Himalayas in average elevation.**
- It consists of a succession of parallel and transverse mountain ranges, or cordilleras, and of intervening plateaus and depressions. **The highest elevation in the Andes is Mount Aconcagua in Argentina**

**Q.25) With reference to the Rice bran, consider the following statements:**

1. It is one of the main byproducts in the process of the rice milling.
2. It is a good source of unsaturated fats, vitamin E, and other important nutrients.

**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

**Ans (c) Rice bran is one of the main byproducts in the process of the rice milling.**

- It is the outer brown layer of brown rice and is separated during the milling process.
- The bran fraction contains 14-18% oil.
- Rice bran oil is a good source of unsaturated **fats, vitamin E, and other important nutrients.**
- It is currently mostly used as animal feed. The health effects of RB **including antidiabetic, lipid-lowering, hypotensive, antioxidant, and anti-inflammatory effects,** while its consumption also improves bowel function.

**Q.26) Consider the following statements.**

1. Kandla port is the first port developed after India's Independence
2. Visakhapatnam port is the oldest but artificial port in India
3. Chennai port is the deepest landlocked port in India

**Which of the above statements is/are correct?**

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

**Ans (a)** Visakhapatnam is **deepest landlocked port.**

Chennai port is one of the **oldest but artificial port**

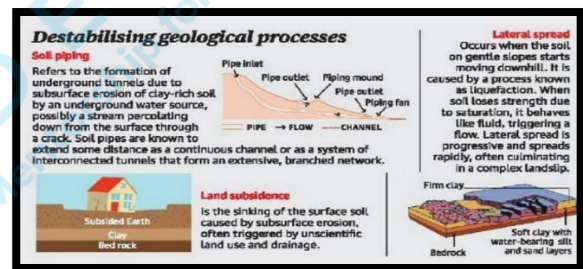
**Q.27) Which of the following are the destabilising geological processes that pose a serious threat to human habitation in the highlands of western Ghats?**

1. Land subsidence
2. Lateral spread
3. Soil piping

**Select the correct answer code:**

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

**Ans (d)**



**Q.28) Consider the following statements regarding Multi-Agency Centre (MAC), recently seen in news**

1. Multi Agency Centre (MAC), is a common counter-terrorism grid under the Ministry of Defence that was made operational post-Kargil war.
2. Multiple organisations including the Research and Analysis Wing (R&AW), armed forces and State police are part of the platform.
3. Various security agencies share real-time intelligence inputs on the MAC.

**Which of the above statements is/are correct?**

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

**Ans (d)**

- Multi Agency Centre (MAC) is a **common counter-terrorism grid under the Intelligence Bureau (IB)** that was made operational in 2001 post-Kargil war.

As many as 28 organisations, including the **Research and Analysis Wing (R&AW), armed forces and State police are part of the platform** and various security agencies share real-time intelligence inputs on the MAC.

**Q.29) Which among the following best describes 'Wolf 1069 b', recently seen in news?**

- (a) Stealth destroyer
- (b) Exoplanet
- (c) Radio galaxy
- (d) Unmanned aerial vehicle

**Ans (b)** Wolf 1069 b: It is a **potentially habitable exoplanet 31 light-years away from Earth.**

- It orbits a **red dwarf star, Wolf 1069.**
- Wolf 1069 b lies within its star's habitable zone.
- Wolf 1069 b receives approximately 65% of the solar radiance that Earth receives.
- Wolf 1069 b is potentially a rocky world and is tidally locked to its parent star

**Q.30) With reference to the Cytotoxin, consider the following statements:**

1. It is a class of the non-enzymatic three-finger toxin family present in cobra venoms.
2. Venoms from African spitting cobras have a lesser proportion of cytotoxins than the Asiatic cobras.

**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

**Ans (a)** Cytotoxins (CTXs) are an **essential class of the non-enzymatic three-finger toxin family and are ubiquitously present in cobra venoms.**

- These low-molecular-mass toxins, contributing to about 40 to 60% of the cobra venom proteome, play a significant role in cobra venom-induced toxicity, more prominently in dermonecrosis (local effects). Some CTXs are also responsible for depolarizing neurons and heart muscle membranes

**Q.31) International Program on Holocaust and Genocide Education (IPHGE) is the initiative of**

- (a) Amnesty International
- (b) Human Rights Watch
- (c) Survival International
- (d) UNESCO

**Ans (d)** The International Program on Holocaust and Genocide Education (IPHGE) is a **programme undertaken jointly by UNESCO and the United States Holocaust Memorial Museum (USHMM)** to enable stakeholders from all regions of the world to develop long-term **educational, cultural and academic initiatives** that can contribute to institutionalize education about the Holocaust and genocide in their respective country.

**Q.32) The Lieutenant Governor of Delhi has executive control over the reserved subjects which include**

1. Police
2. Education
3. Land
4. Excise
5. Agriculture

**Select the correct answer code:**

- (a) 1, 2, 3
- (b) 1, 3
- (c) 1, 3, 4, 5
- (d) 2, 4, 5

**Ans (b)** Technically, the Lieutenant Governor has **executive control over only the three reserved subjects of police, public order and land;** all other subjects (transferred subjects) lie with the elected government.

**Q.33) Consider the following pairs of Indo-French Joint Exercises.**

1. Shakti: Air exercise
2. Varuna: Naval exercise
3. Garuda: Army exercise

**Which of the above pairs is/are correctly matched?**

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

(d) 1, 2, 3

**Ans (b)** France has emerged as a major strategic partner for India with crucial defence deals and increased military to military engagement. A key example of this is the **inducting of the French Scorpene conventional submarines**, being built in India under technology transfer agreement of 2005, and the Indian Air Force having received 36 Rafale fighter jets.

These relations are further fortified with the robust network of military dialogues and regularly held joint exercises — **Varuna (navy), Garuda (air force), and Shakti (army)**

**Q.34) Consider the following statements regarding Sovereign green bonds (SGrBs).**

1. In India, the Sovereign green bonds are auctioned by the the Reserve Bank of India (RBI).
2. At present only Institutional investors are eligible for investing in Sovereign green bonds.
3. The proceeds will be invested in public sector projects aimed at reducing the carbon intensity of the economy.

**Which of the above statements is/are correct?**

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

**Ans (c)** The Reserve Bank of India (RBI) recently auctioned its maiden sovereign green bonds worth ₹8,000 crore. These comprised sovereign green bonds 2028 and sovereign green bonds 2033 with a cut-off yield of 7.10% and 7.29%, respectively, a few basis points lower than the G-sec of the same tenure.

- The proceeds will be invested in environment-friendly projects **like solar, wind, small hydro power projects, etc.** Five percent of the total amount of bonds will be made available to retail investors.

**Q.35) According to a new study, around one in 500 men could be carrying an extra X or Y chromosome (either XXY or XYY). Such people are at increased risk of**

1. Chronic obstructive pulmonary disease (COPD)
2. Pulmonary embolism
3. Type 2 diabetes
4. Venous thrombosis

**Select the correct answer code:**

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

**Ans (d)** Around one in 500 men could be carrying an **extra X or Y chromosome**, most of them unaware, according to researchers at the universities of Cambridge and Exeter. This puts them at **increased risk of diseases such as type 2 diabetes, atherosclerosis and thrombosis**, the researchers report in a study published in Genetics in Medicine.

- Sex chromosomes determine our biological sex. Men typically have one X and one Y chromosome, while women have two Xs. However, some men also have XXY or XYY.

**Men with either XXY or XYY had higher risks of several other health conditions.** They were three times more likely to have type 2 diabetes, six times more likely to develop venous thrombosis, three times as likely to experience pulmonary embolism, and four times more likely to suffer from chronic obstructive pulmonary disease (COPD).

**Q.36) Consider the following statements regarding the Moment Magnitude Scale:**

1. It is a logarithmic scale that measures the total amount of energy released by an earthquake.
2. It is based on the total moment release of the earthquake, which is a product of the distance a fault moved and the force required to move it.

**Which of the statements given above is/are not correct?**

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

**Ans (d)** It is a **logarithmic scale** that measures the total amount of energy released by an earthquake.

- It is the only scale capable of reliably measuring the magnitudes of the largest, most destructive earthquakes (that is, greater than magnitude 8).
- The moment magnitude scale is based on the total moment release of the earthquake. Moment is a product of the distance a fault moved and the force required to move it.

**Q.37) With reference to the Dickinsonia, consider the following statements:**

1. It is an extinct genus of basal animals that lived during the late Ediacaran period.
2. Ediacaran period consisted of tubular and frond-shaped organisms.

**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

**Ans (c) Dickinsonia is an extinct genus of basal animal that lived during the late Ediacaran period on ocean floors around present-day's Australia, Russia and Ukraine.**

- The individual Dickinsonia typically resembles a bilaterally symmetrical ribbed oval.
- The discovery of cholesterol molecules in fossils of Dickinsonia lends support to the idea that **Dickinsonia was an animal.**
- It is believed to be one of the key links between the early, simple organisms and the explosion of life in the Cambrian Period, about 541 million years ago.
- The Ediacaran period consisted of tubular and frond-shaped organisms that lived during this period.  
The Ediacaran Period was about 20 million years before the emergence of modern animal life — a period known as the Cambrian explosion.

**Q.38) With reference to the Quasi crystals, consider the following statements:**

1. The atoms in quasi crystals are arranged in a pattern that repeats itself at irregular intervals.
2. They have poor heat conductivity, which makes them good insulators.

**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

**Ans (c) Quasicrystal, also called quasi-periodic crystal, matter formed atomically in a manner somewhere between the amorphous solids of glasses and the precise pattern of crystals.**

- In quasicrystals, the atoms are arranged in a pattern that repeats itself at irregular, yet predictable, intervals.
- Recently in the Sand Hills dunes in northern Nebraska, where scientists found silicate glass which is a dodecagonal quasicrystal, rare even for quasicrystals.
- They are used in **surgical instruments, LED lights and nonstick frying pans. They have poor heat conductivity, which makes them good insulators.**

**Q.39) Consider the following statements.**

1. During colonial times, the Indian rupee was virtually linked to the British pound rather than to gold which it earned through exports.
2. The Reserve Bank of India (RBI) rules does not allow cross border trade transactions in rupee.

**Which of the above statements is/are correct?**

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

**Ans (a)** As for India, currency hierarchy goes back to colonial times when the Indian rupee was virtually linked to the British pound rather than to gold which it earned through exports.

**Reserve Bank of India (RBI) allows cross border trade transactions in rupee which is a step towards internationalisation of the currency.**

**Q.40) Consider the following statements.**

1. Coal Mines (Nationalization) Act, 1973 was enacted to nationalise all the coal mines in India.
2. Auctioning of coal mines to the private players is done on the basis of offer of highest price/tonne.
3. 90% of lignite reserves in India occur in eastern parts of the India.

**Which of the above statements is/are correct?**

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

**Ans (b)** Coal Mines (Nationalization) Act, 1973 was enacted to nationalise all the coal mines in India. It was repealed in 2018.

- **The demand-supply mismatch started in 1991** (the liberalisation period) and started widening. This led the government to allow captive mining (mining for own use only).

- The 2015 legislation (Coal Mines (Special provisions) Act, 2015) allowed re-entry of private players into the sector. It enabled auctioning of coal mines.
- The 2018 Cabinet Committee on Economic Affairs allowed the auctioning of mines to the private players on basis of offer of highest price/tonne.

**The Coal resources of India are available in older Gondwana Formations of peninsular India and younger tertiary formations of north-eastern region.**

**Q.41) With reference to the free float of stocks, consider the following statements:**

1. It refers to the shares of a company that can be publicly traded and are not restricted.
2. The free float methodology gives a more accurate reflection of market movements and stocks actively available for trading in the market.

**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

**Ans (c) The free float is also known as Public float which refers to the shares of a company that can be publicly traded and are not restricted.**

It generally excludes promoters' holding, government / strategic holding and other locked-in shares, which will not come to the market for trading in the normal course

**Q.42) With reference to the Kilonova, consider the following statements:**

1. It is a cosmic event that occurs when a neutron star smashes into another neutron star.
2. It releases heavy metals like gold, silver, and selenium into outer space.

**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

**Ans (c) A kilonova is a cosmic event that occurs when a neutron star smashes into another neutron star or a black hole.**

- It releases heavy metals like gold, silver, and selenium into outer space at tremendous velocities, as well as radiation.

A kilonova radiation also accompanies a gamma-ray burst, one of the most energetic cosmic events ever known

**Q.43) Consider the following statements regarding Indian Citizenship:**

1. If a citizen of India voluntarily acquires citizenship of another country, then the citizenship of India gets terminated.
2. Even if a person renounces his Indian citizenship, every minor child of that person continues to be an Indian citizen.

**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

**Ans (a) An Indian Citizen of full age and capacity can renounce his Indian citizenship by making a declaration to that effect and having it registered.**

- But if such a declaration is made during any war in which India is engaged, the registration shall be withheld until the Central Government otherwise directs.
- When a male person renounces his citizenship, every minor child of him ceases to be an Indian citizen. Such a child may, however, resume Indian citizenship if he makes a declaration to that effect within a year of his attaining full age, i.e. 18 years.

**Q.44) Consider the following statements regarding Rare Earth Minerals.**

1. The magnets made from rare earths are more powerful than conventional ones.
2. They are called 'rare earth' because earlier it was difficult to extract them from their oxides forms technologically.
3. Not all rare earth elements (REE) are available in Indian deposits in extractable quantities.

**Which of the above statements is/are correct?**

- (a) 1, 2

- (b) 1, 3
- (c) 2, 3
- (d) 1, 2, 3

**Ans (d)**

**Q.45) Consider the following statements regarding India Plastics Pact, sometimes seen in news.**

1. India Plastics Pact (IPP) was launched as a collaboration between Ministry of Environment, Forest and Climate Change and the Confederation of Indian Industry (CII).
2. It is a collaborative initiative between businesses, governments and NGOs that aims to transform the current linear plastics system into a circular plastics economy.

**Which of the above statements is/are incorrect?**

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

**Ans (a) The India Plastics Pact is an ambitious, collaborative initiative that aims to bring together businesses, governments and NGOs to reduce, reuse, and recycle plastics in their value chain.**

- The Pact aims to transform the current linear plastics system into a circular plastics economy.

**Q.46) With reference to the Baiga Tribe, consider the following statements:**

1. They're one of the Particularly Vulnerable Tribal Groups (PVTGs).
2. Bewar is a type of shifting cultivation is practiced by this tribe.

**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

**Ans (c) The Baiga Tribe is one of the Particularly Vulnerable Tribal Groups (PVTGs).**

- They reside in **Chhattisgarh, Jharkhand, Bihar, Odisha, West Bengal, Madhya Pradesh and Uttar Pradesh.**

- Occupation: Traditionally, the Baiga lived a semi-nomadic life and practised slash-and-burn cultivation. Now, they are mainly dependent on minor forest produce for their livelihood.
- They practice a form of shifting cultivation called, "Bewar."

**Mahua is another important aspect of Baiga's food and drink.** It is an intoxicant prepared from the fermentation and distillation of the flowers of the Mahua tree.

**Q.47) Consider the following statements regarding Indian white-backed vulture:**

1. They are medium-sized, dark vultures endemic to Western Ghats.
2. They are classified as Critically Endangered under IUCN Red list of threatened species.

**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

**Ans (b) Indian white-backed vulture:** They are medium-sized, dark vultures.

**Distribution:** Pakistan, India, Bangladesh, Nepal, Bhutan, Myanmar (Burma), Thailand, Laos, Cambodia, and southern Vietnam.

**Habitat:** Found mostly in plains and less frequently in hilly regions. Can also be seen in villages and cities near to cultivation

**Q.48) A Biomarker is generally used as an indicator of**

- (a) Phenotype and genotype of a microbe
- (b) Biodiversity of an ecosystem
- (c) Diseases in an organism
- (d) Increase in the size of a biome

**Ans (c) A biomarker may be used to see how well the body responds to a treatment for a disease or condition.** Also called molecular marker and signature molecule.

It can also be a substance whose detection indicates a particular disease state, for example, the presence of an antibody may indicate an infection. More specifically, a biomarker indicates a change in expression or state of a protein that correlates with the risk or



progression of a disease, or with the susceptibility of the disease to a given treatment.

**Q.49) Consider the following statements regarding Conservation Agriculture (CA).**

1. Conservation Agriculture (CA) is a farming system that can prevent losses of arable land while regenerating degraded lands.
2. It includes crop-livestock integration and the integration of trees and pastures into agricultural landscapes.
3. External inputs such as agrochemicals are completely avoided so that it does not disrupt the biological processes.

**Which of the above statements is/are correct?**

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

**Ans (b)** CA principles are **universally applicable to all agricultural landscapes and land uses with locally adapted practices**. Soil interventions such as mechanical soil disturbance are reduced to an absolute minimum or avoided, and external inputs such as agrochemicals and plant nutrients of mineral or organic origin are applied optimally and in ways and quantities that do not interfere with, or disrupt, the biological processes.

**Q.50) Consider the following statements regarding Solar prominences:**

1. These are large, loop-like structures on the edge of the solar disk shaped by the Sun's complex magnetic field.
2. They are much hotter than the surrounding plasma in the Sun's corona.

**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

**Ans (a)** Large, loop-like structures on the edge of the solar disk sometimes stand out brightly against the dark background of space. **These enormous structures are called solar prominences.**

- Prominences are anchored to the Sun's surface in the photosphere, and extend outwards into the Sun's hot outer atmosphere, called the corona.

**They are much cooler and denser than the surrounding plasma in the Sun's corona.**

**Q.51) Saptakoteshwar Temple, which was recently seen in the news, is in which state?**

- (a) Goa
- (b) Karnataka
- (c) Maharashtra
- (d) None of the above

**Ans (a)** The original Saptakoteshwar Temple was built around the twelfth century by the Kadamba dynasty in Narve on Divar Island.

- The main deity of this temple is Shiva.
- Intricate designs adorn the ceiling while the sanctorum wall is composed of plain wood.
- **The mandapa of the temple is built in a distinctly European style, which is quite interesting to watch. Laterite and stone caves surround the temple.**
- **Maratha King Shivaji ordered the rebuilding of the Saptakoteshwar temple**

**Q.52) With reference to the Geological Survey of India, consider the following statements:**

1. The main functions of this organization is to update national geo-scientific information and mineral resource assessment.
2. It works under the Ministry of Mines.

**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

**Ans (c)** It was set up in **1851 primarily to find coal deposits for the Railways.**

- Over the years, it has grown into a repository of geo-science information required in various fields in the country. **The main functions of the GSI relate to the creation and updation of national geoscientific information and mineral resource assessment.**

Presently, GSI is an attached office to the Ministry of Mines. It is headquartered in Kolkata.

**Q.53) Consider the following statements regarding Lymphatic Filariasis (LF).**

1. Lymphatic filariasis, commonly known as elephantiasis, is a neglected tropical disease.
2. It does not spread to humans through the bite of mosquitoes.
3. Infection is usually acquired in childhood causing hidden damage to the lymphatic system and the visible manifestations of the disease occur later in life.
4. In India, Anti-filarial drugs are administered door-to-door through a nationwide Mass Drug Administration (MDA) campaign.

**Which of the above statements is/are correct?**

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

Ans (c) **Lymphatic filariasis, commonly known as elephantiasis, is a neglected tropical disease.** Infection occurs when filarial parasites are transmitted to humans through Culex mosquitoes. Infection is usually acquired in childhood causing hidden damage to the lymphatic system.

**The painful and disfiguring visible manifestations of the disease, lymphoedema, elephantiasis and scrotal swelling (hydrocele) occur later in life and can lead to permanent disability.**

**Q.54) In India which of the following states have notified Fifth Schedule areas?**

1. Odisha
2. Telangana
3. Uttar Pradesh
4. Himachal Pradesh
5. Rajasthan

**Select the correct answer code:**

- (a) 1, 3, 4  
 (b) 1, 2, 4, 5  
 (c) 2, 3, 5  
 (d) 1, 2, 3, 4, 5

**Ans (b) Ten states** — Andhra Pradesh, Chhattisgarh, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, and Telangana — have notified Fifth Schedule areas that cover (partially or fully) several districts in each of these states

**Q.55) Which of the following countries border Mediterranean Sea?**

1. Tunisia
2. Italy
3. Greece
4. Bulgaria

**Select the correct answer code:**

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

**Ans (a)**



**Q.56) Tansa Wildlife Sanctuary, recently seen in the news, lies in which state?**

- (a) Karnataka  
 (b) Maharashtra  
 (c) Odisha  
 (d) Rajasthan

**Ans (b) The first-ever bird survey in Tansa Wildlife Sanctuary was conducted recently, and the volunteers recorded 186 species of birds.**

- It is located in the Thane District of Maharashtra, 90 km northeast of Mumbai in the foothills of the Western Ghats.
- It is known to be a paradise for birdwatchers. It has two rivers, the Tansa and Vaitarna, and the sanctuary gets its name from the former, which divides the sanctuary into two parts

**Q.57) With reference to the aubrite meteorite, consider the following statements:**

1. They are coarse-grained igneous rocks that are formed in oxygen-poor conditions.
2. They consist of a variety of minerals which are not found on the earth.

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

**Ans (c)** Aubrite meteorites are **coarse-grained igneous rocks that are formed in oxygen-poor conditions.**

- They contain a variety of exotic minerals that are not found on Earth.  
The recently found **aubrite meteorite** in Gujarat is composed of orthopyroxene

**Q.58) INDIAai, which was recently seen in the news is:**

- (a) A military Exercise
- (b) An artificial intelligence Portal
- (c) An asteroid
- (d) None of these

**Ans (b)** Against the backdrop of the revolutionary transition in AI brought in by **ChatGPT, the government is expanding the INDIAai initiative in partnership with Indian tech companies, startups, and academic institutions.**

- It is the National artificial intelligence Portal of India which was launched on **28th May 2020.**
- It is a joint initiative by the **Ministry of Electronics and IT (MeitY), National e-Governance Division (NeGD) and NASSCOM.**
- NeGD: In 2009, **NeGD was created as an Independent Business Division under the Digital India Corporation (a not-for-profit company set up by MeitY).**  
**NASSCOM:** It is a not-for-profit industry association and the apex body for the IT and IT-enabled products and services sector in India.

**Q.59) Consider the following statements regarding Gold ETF.**

1. Gold ETFs are passive investment instruments that are based on gold prices and invest in gold bullion.
2. The price of One Gold ETF unit is equal to 1 gram of gold of at least 99.5 percent purity.
3. Gold ETFs can be redeemed for physical gold.

**Which of the above statements is/are correct?**

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

(d) 1, 2, 3

**Ans (b)** Gold ETFs are listed and traded on the National Stock Exchange of India (NSE) and Bombay Stock Exchange Ltd. (BSE) like a stock of any company. Gold ETFs trade on the cash segment of BSE & NSE, like any other company stock, and can be bought and sold continuously at market prices.

- **Buying Gold ETFs means you are purchasing gold in an electronic form.** You can buy and sell gold ETFs just as you would trade in stocks. When you actually redeem Gold ETF, you don't get physical gold, but receive the cash equivalent. Trading of gold ETFs takes place through a dematerialised account (Demat) and a broker, which makes it an extremely convenient way of electronically investing in gold.

**Q.60) Only one side of the Moon is visible from Earth because**

1. There is atmospheric refraction on earth whereas atmosphere is absent on Moon.
2. Moon rotates on its axis at the same rate that the Moon orbits the Earth
3. The moon has a geoid shape and the earth has an axial tilt.

**Select the correct answer code:**

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

**Ans (b)** The near side of the Moon is the lunar hemisphere that always faces towards Earth, opposite to the far side. Only one side of the Moon is visible from Earth because the Moon rotates on its axis at the same rate that the Moon orbits the Earth—a situation known as **tidal locking.**

- Atmospheric refraction helps planets, stars twinkle and doesn't decide which side of them is visible or invisible on earth.

**Q.61) Consider the following statements regarding the Agriculture Accelerator Fund:**

1. It will be set up to encourage agri-startups by young entrepreneurs exclusively in urban areas.
2. It aims to bring innovative and affordable solutions to challenges faced by farmers.

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

**Ans (b)**

- It will be set up to **encourage agri-startups by young entrepreneurs in rural areas.**
- The Fund will aim at **bringing innovative and affordable solutions for challenges faced by farmers.**
- It will also bring in **modern technologies** to transform agricultural practices and increase productivity and profitability.

**Q.62) With reference to the Marburg virus disease (MVD), consider the following statements:**

1. MVD is a severe hemorrhagic fever that affects both people and non-human primates.
2. It is transmitted to people from fruit bats and spreads among humans through human-to-human transmission.

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

**Ans (c)**

- MVD, earlier known as **Marburg hemorrhagic fever, is a rare but severe hemorrhagic fever** that affects both people and non-human primates.
- **Causative agent:** MVD is caused by the Marburg virus, a genetically unique zoonotic (animal-borne) RNA virus. **Marburg and Ebola viruses are both members of the Filoviridae family (filovirus).**
- The reservoir host of the Marburg virus is the **African fruit bat, Rousettus aegyptiacus.**
- **Transmission:** The Marburg virus is transmitted to people from fruit bats and spreads among humans through human-to-human transmission.
- **Fatality:** The average MVD case fatality rate is around 50%.  
**Treatment:** There is no specific treatment for Marburg virus disease.

**Q.63) Consider the following statements regarding the Indian Council of Historical Research (ICHR):**

1. It is an autonomous organization under the Ministry of Culture.
2. It disburses funds for carrying out research to Indian as well as foreign scholars.

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

**Ans (b)**

- ICHR is an **autonomous organization under the Ministry of Education, Government of India.**
- It was established in **1972** by an Administrative Order.
- ICHR was registered under **the Societies Registration Act (Act XXI of 1860) as a literary and charitable society.**
- The ICHR is based in Delhi, with regional centers in Pune (Maharashtra), Bengaluru (Karnataka), and Guwahati (Assam)

**Q.64) With reference to TAPAS unmanned aerial vehicle, consider the following statements:**

1. It is developed by the European Space Agency.
2. It is a Medium Altitude Long Endurance surveillance vehicle.

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

**Ans (b)**

- Tapas-BH (Tactical Airborne Platform for Aerial Surveillance-Beyond Horizon 201), formerly referred to as Rustom-II.
- It is **designed and developed by the Aeronautical Development Establishment (ADE), Bengaluru** with production partners being Hindustan Aeronautics Ltd and Bharat Electronics Limited.  
It is being developed to carry out **surveillance and reconnaissance (ISR) roles and is capable of**

carrying different combinations of advanced payloads and capable of auto-landing among others.

**Q.65) With reference to Aero India 2023, consider the following statements:**

1. It is held once in every 2 years.
2. The theme of 2023 aero India is "The runway to a billion opportunities".

**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

**Ans (c)**

**Q.66) Consider the following statements regarding the Special Assistance to States for Capital Investment Scheme:**

1. Under the scheme, financial assistance is provided to the State Governments in the form of long-term loans with low interest rates.
2. The loan provided under the scheme will be over and above the normal borrowing ceiling allowed to the States.

**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

**Ans (b)** Last year, the Government of India launched a **Scheme Special Assistance to States for Capital Investment for 2022-23.**

- Under this Scheme, financial assistance is provided to the State Governments in the form of a **50-year interest-free loan for capital investment projects.**
- The loan provided under the scheme will be over and above the normal borrowing ceiling allowed to the States.

**Budget 2023:** The scheme will be continued for one more year with a significantly enhanced outlay of 1.3 lakh crore

**Q.67) Gaziantep castle, recently seen in the news, lies in which one of the following countries?**

- (a) Ukraine
- (b) Egypt
- (c) Spain
- (d) Turkey

**Ans (d)** It is located on a hilltop in southern Turkey's city of Gaziantep.

- It is a **UNESCO World Heritage site.**
- It was first built by the Hittite Empire as an observation point and later built into a main castle by the Roman Empire in the 2nd and 3rd century AD.  
The castle has the shape of an irregular circle

**Q.68) Apatani Tribe, which was recently seen in the news resides in which state?**

- (a) Telangana
- (b) Arunachal Pradesh
- (c) Kerala
- (d) None of these

**Ans (b)** The Apatani are a tribal group of people living in the **Ziro valley in Arunachal Pradesh.**

- They speak a **local language called Tani and worship the sun and the moon.**
- They have **major festivals like Dree, Myoko, Yapung and Murung.**
- Dree is celebrated with prayers for a bumper harvest and prosperity of all humankind and Myoka celebrates friendship similar to modern friendship day.
- They have been practising integrated rice-fish farming in their mountain terraces of Arunachal Pradesh.

**Q.69) "Superbugs" can develop with the abuse of**

1. Antiparasitics
2. Antibiotics
3. Antivirals
4. Antifungals

**Select the correct answer code:**

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

**Ans (d)** Antimicrobial resistance occurs when microorganisms such as **bacteria, viruses, fungi and parasites** change in ways that render the medications used to cure the infections they cause ineffective. When the microorganisms

become resistant to most antimicrobials they are often referred to as “superbugs”

**Q.70) Consider the following statements regarding Ruminant species.**

1. Ruminants are herbivorous grazing mammals that are able to acquire nutrients from plant-based food by fermenting it in a specialized stomach prior to digestion, principally through microbial actions.
2. Cows, sheep, goats, and buffaloes are some of the Ruminants.
3. Ruminant animals release methane mainly through burping.

**Which of the above statements is/are correct?**

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

**Ans (d)**

**Q.71) Consider the following statements regarding the Credit Guarantee Scheme for Micro and Small Enterprises (CGS):**

1. It was launched by the Government to make available interest-free credit to the micro and small enterprise sector.
2. Both the existing and the new enterprises are eligible to be covered under the scheme.

**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

**Ans (b)** Credit Guarantee for MSMEs: The revamped Credit Guarantee scheme will take effect from 1st April 2023 through infusion of ` 9,000 crores in the corpus.

- This will enable additional collateral-free guaranteed credit of 2 lakh crore. The cost of the credit will be reduced by about 1 percent.

**Q.72) With reference to the Investor Education and Protection Fund Authority, consider the following statements:**

1. It was established under the Companies Act, of 2013.
2. It works under the Ministry of Corporate Affairs.

**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

**Ans (c)** The Investor Education and Protection Fund Authority (IEPFA), will organise a **State Level Conference on Financial Literacy in Amrit Kaal - Empowering Investors in association with the Department of Tourism in Aizawl.**

- It was established in **2016** under the Companies Act, of 2013.
- The Authority is entrusted with;
- The responsibility of administration of the Investor Education Protection Fund (IEPF).
- Make refunds of shares, unclaimed dividends, matured deposits/debentures etc. to investors and promote awareness among investors.
- **Nodal Ministry:** Ministry of Corporate Affairs.

**Q.73) With reference to the Indo-Tibetan Border Police, consider the following statements:**

1. It is one of the Central Armed Police Forces of India.
2. It works under the Ministry of Defence.

**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

**Ans (a)** Indo-Tibetan Border Police is one of the Central Armed Police Forces of India.

- It is a specialized mountain force and most of the officers and men are professionally trained mountaineers and skiers.
- **Origin:** It was raised in 1962, in the wake of the Sino-Indian War of 1962 for deployment along India's border with China's Tibet Autonomous Region.
- **Status:** ITBP was initially raised under the CRPF Act. However, in 1992, parliament enacted the

ITBPF Act and the rules there under were framed in 1994.

- **The motto of the Force: “Shaurya-Dridhata-Karma Nishtha” (Valour – Determination – Devotion to Duty).**

Nodal Ministry: Ministry of Home Affairs

**Q.74) Consider the following statements.**

1. Perform, Achieve and Trade (PAT) scheme is a regulatory instrument to reduce Energy Consumption in energy intensive industries, and the Energy consumption norms are set by Bureau of Energy Efficiency (BEE).
2. India is obligated to cut carbon emissions under the provisions of the United Nations Framework Convention on Climate Change.

**Which of the above statements is/are correct?**

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

**Ans (a)** Since 2015, the BEE has been running the ‘Perform, Achieve, Trade’ scheme under which **1,078 industries spanning 13 sectors** have been getting energy security certificates if they exceeded certain targets.

The EU is required to cut emissions under the provisions of the **United Nations Framework Convention on Climate Change**. India doesn’t have an obligation. However, we have committed to reducing the emissions intensity (emissions per unit of GDP) of our **GDP by 45% (of 2005 levels) by 2030**

**Q.75) PESA Act empowers gram sabhas to play a key role in approving development plans and controlling all social sectors. This includes**

1. Preventing land alienation
2. Regulating intoxicants
3. Managing local markets
4. Exercising control over all forest resources.

**Select the correct answer code:**

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

**Ans (b)** PESA empowers gram sabhas to play a **key role in approving development plans and controlling all social sectors**. This includes the processes and personnel who implement

policies, exercising control over **minor (non-timber) forest resources, minor water bodies and minor minerals**, managing local markets, preventing land alienation and regulating intoxicants among other things

**Q.76) Which one of the following is the best description of ‘ADT 52’, that was in the news recently?**

- (a) Asteroid
- (b) High-yield paddy variety
- (c) Aviation fuel
- (d) Anti-aircraft missile

**Ans (b)** ADT 52, which stands for ‘Aduthurai 52’, is a long-duration paddy variety.

- It is resistant to gall midge and moderately resistant to leaf blast, neck blast, grain discoloration, and bacterial leaf blight.
- **The Tamil Nadu Rice Research Institute (TRRI) in Aduthuurai launched the ADT 52 variety in 2018.**

**Q.77) With reference to the Parker Solar Probe, consider the following statements:**

1. It was launched by the Indian Space Research Organisation.
2. It will study the structure and dynamics of the plasma and magnetic fields at the sources of the solar wind.

**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

**Ans (b)** Recently, one of the instruments on NASA's Parker Solar Probe powered down unexpectedly and the mission team expects it to come back online soon.

- It was launched in **2018** and will travel through the sun’s atmosphere, closer to the surface than any spacecraft before it.
- **It will trace the flow of energy that heats and accelerates the solar corona and solar wind.**
- Determine the structure and dynamics of the plasma and magnetic fields at the sources of the solar wind.

Explore mechanisms that accelerate and transport energetic particles

**Q.78) Consider the following statements.**

1. Decline in forest cover can lead to Nutrient depletion like phosphorus and nitrogen in the soil.
2. Increase in salinity in the soil can lead to change in the Plant Species Distribution in the region.

**Which of the above statements is/are incorrect?**

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

**Ans (d)** Nutrient depletion especially **phosphorus and nitrogen** was found to be directly connected with the decline in forest cover.

There was a change in the species distribution — salt-sensitive ones such as **Heriteira fomes, Xylocarpus species and Phoenix paludosa** were not able to cope up with the increase in the salinity and declined while the tolerant varieties thrived

**Q.79) Which of the following are the applications of Shade house, used in farming?**

1. It helps protect against pest attack.
2. It helps in quality drying of various agro products.
3. It helps in cultivation of flower plants and foliage plants.
4. It is used for hardening tissue culture plantlets.

**Select the correct answer code:**

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

**Ans (d)**

**Q.80) Consider the following statements regarding Common law.**

1. Common law is the body of law that is created by judges through their written opinions, rather than through statutes or constitutions.
2. The United Kingdom (UK) and the Commonwealth countries, including India are common law countries.

**Which of the above statements is/are correct?**

- (a) 1 only
- (b) 2 only

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

**Ans (c)**

Common law is the body of law that is created by judges through their written opinions, rather than through statutes or constitutions (statutory law). **Common law, which is used interchangeably with 'case law', is based on judicial precedent. The United Kingdom (UK) and the Commonwealth countries, including India, are common law countries.**

**Q.81) Consider the following statements regarding Currency and Gold Revaluation Account (CGRA).**

1. The Currency and Gold Revaluation Account (CGRA) is maintained by the Reserve Bank of India to take care of currency risk, interest rate risk and movement in gold prices.
2. It can come under pressure if there is an appreciation of the rupee vis-à-vis major currencies or a fall in the price of gold.
3. Unrealised gains or losses on valuation of foreign currency assets (FCA) and gold are not accounted for in the CGRA.

**Which of the above statements is/are correct?**

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

**Ans (a)** The Currency and Gold Revaluation Account (CGRA) is maintained by **the Reserve Bank to take care of currency risk, interest rate risk and movement in gold prices.**

- Unrealised gains or losses on valuation of foreign currency assets (FCA) and gold are not taken to the income account but instead accounted for in the CGRA.
- CGRA provides a buffer against exchange rate/ gold price fluctuations. **It can come under pressure if there is an appreciation of the rupee vis-à-vis major currencies or a fall in the price of gold.**
- When CGRA is not sufficient to fully meet exchange losses, it is replenished from the Contingency Fund (CF)

**Q.82) "Angel investor" means any person who proposes to invest in an angel fund and satisfies which of the following conditions?**

1. Has experience as a serial entrepreneur
2. Has early stage investment experience



3. Is a senior management professional with at least ten years of experience

**Select the correct answer code:**

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

**And (d)**

**Q.83) Fourth Industrial Revolution (4IR) is a collection of which of the following technologies?**

- 1. Cloud computing
- 2. Augmented reality
- 3. Autonomous robots
- 4. Additive manufacturing
- 5. Internet of things (IoT)

**Select the correct answer code:**

- (a) 1, 2, 3, 4
- (b) 1, 2, 4, 5
- (c) 1, 2, 4, 5
- (d) 1, 2, 3, 4, 5

**Ans (d)** The first industrial revolution used **water and steam power** to mechanise production (1800s). **The second used electric power to create mass production (early 1900s)**. The third used electronics and information technology to automate production (late 1900s). The 4IR, which is building on the third revolution, has data at its core.

- **4IR is a collection of nine technologies:** cloud computing, big data, augmented reality, system integration, autonomous robots, cybersecurity, simulation, additive manufacturing, and the internet of things (IoT).

**Q.84) Which of the following activities are prohibited in Eco-Sensitive Zones (ESZ) in India?**

- 1. Saw mills
- 2. Commercial mining
- 3. Rainwater harvesting
- 4. Horticultural practices

**Select the correct answer code:**

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

**Ans (a)** The guidelines state that the ESZs are not meant to hamper the daily activities of people living in the vicinity, but are meant to guard the protected areas and **“refine the environment around them”**. To do so, the guidelines list the activities prohibited in an ESZ, such as

commercial mining, saw mills, commercial use of wood, etc., apart from regulated activities like felling of trees. Lastly, there are permitted activities like ongoing agricultural or horticultural practices, rainwater harvesting, organic farming, among others.

**Q.85) Consider the following statements regarding Inter-state Council.**

- 1. The Constitution gives powers to the Parliament to set up an Inter-state Council for resolution of disputes between states.
- 2. The Sarkaria Commission suggested that the Council should exist as a permanent body.
- 3. The standing committee of the Council has been reconstituted with Prime Minister as the Chairman.

**Which of the above statement is/are correct?**

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

**Ans (b) Inter-state Council:** Article 263 of the Constitution gives powers to the President to set up an Inter-state Council for resolution of disputes between states. The Council is envisaged as a forum for discussion between the states and the Centre. **In 1988, the Sarkaria Commission suggested that the Council should exist as a permanent body**, and in 1990 it came into existence through a Presidential Order.

## Practice MCQs on Conventional Subjects

**Q.1) For industrialisation to take place, the presence of certain industries is essential in the country, with the context of a new series of Index of**

**Industrial Production (IIP), arrange the following sectors in descending order according to their weight assigned to them in IIP.**

1. Crude Oil
2. Cement
3. Steel
4. Refinery Products

**Select the correct answer using the code given below:**

- (a) Cement> Steel> Refinery Products> Crude Oil
- (b) Refinery Products> Crude Oil> Cement> Steel
- (c) Refinery Products> Steel> Crude Oil> Cement
- (d) Crude Oil> Steel> Refinery Products> Cement

**Ans (c) About Eight Core Sectors:**

These comprise 40.27% of the weight of items included in the Index of Industrial Production (IIP).

The **eight core sector industries in decreasing order of their weightage:** Refinery Products> Electricity> Steel> Coal> Crude Oil> Natural Gas> Cement> Fertilizers.

**Q.2) In India, which of the following have the highest share in the disbursement of credit to agriculture and allied activities? (CSE)**

- (a) Commercial Banks
- (b) Cooperative Banks
- (c) Regional Rural Banks
- (d) Microfinance Institutions

**Ans (a) Commercial banks have the highest share in the disbursement of credit to agriculture and allied activities.** The commercial banks disburse around **60% credit followed by cooperative banks around 30% and RRB and others**

**Q.3) Both Foreign Direct Investment (FDI) and Foreign Institutional Investor (FII) are related to investment in a country. Which one of the following statements best represents an important difference between the two? (CSE)**

- (a) FII helps bring better management skills and technology, while FDI only brings in capital
- (b) FII helps in increasing capital availability in general, while FDI only targets specific sectors
- (c) FDI flows only into the secondary market, while FII targets primary market
- (d) FII is considered to be more stable than FDI

**Ans (b)** FDI targets a particular company, but FII does not target a particular company. **FII flows only into the secondary markets, while FDI targets the primary market.** FDI is considered to be more stable than FII. FDI helps bring better management skills and technology, while FII only brings in the capital

**Q.4) The Reserve Bank of India (RBI) acts as a bankers' bank. This would imply which of the following?**

1. Other banks retain their deposits with the RBI.
2. The RBI lends funds to the commercial banks in times of need.
3. The RBI advises the commercial banks on monetary matters.

**Select the correct answer using the codes given below:**

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

**Ans (d)** All the Statements are correct.

**Q.5) With reference to treasury bills consider the following statements:**

1. Treasury bills are used by the central government to fulfill its long term liquidity.
2. Banks cannot keep treasury bills as SLR approved security.

**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

**Ans: (d)**

Exp:

- **Statement 1 is incorrect:** They are used by the Central Government to fulfill its short-term liquidity requirement **upto the period of 364 days.**
- **Statement 2 is Incorrect:** The RBI specifies the SLR status of securities issued by the **Government of India and the State Governments:** Dated securities of the Government of India, Treasury Bills of the

Government of India, Dated securities of the Government of India, State Development Loans

**Q.6) With reference to call money market consider the following statements:**

1. Call Money market is an inter-bank money market where funds are borrowed and lent.
2. In the call money market, borrowing can take place only against securities.
3. Individuals are also allowed to borrow and lend in the call money market.

**Which of the statements given above is/are correct?**

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

**Ans: (a)**

Exp:

- **Statement 1 is correct:** This is basically an inter-bank money market where funds are borrowed and lent, generally, for one day—that is why this is also known as overnight borrowing market (also called money at call).
- **Statement 2 is incorrect:** Borrowing in this market may take place against securities or without securities.
- **Statement 3 is incorrect:** The scheduled commercial banks, co-operative banks operate in this market as both the borrowers and lenders while **LIC, GIC, Mutual Funds, IDBI and NABARD are allowed to operate as only lenders in this market.**

**Q.7) With reference to Indian economy consider the following statements:**

1. The Insurance Regulatory and Development Authority (IRDA) is a regulatory body in the insurance sector with five members appointed by the government.
2. Insurance Laws (Amendment) Act, 2015 allowed 100% FDI in the insurance sector.
3. Life and non life insurance penetration have crossed 20% in India.

**Which of the statements given above is/are not correct?**

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

**Ans: (b)**

Exp:

- **Statement 1 is correct:** The Insurance Regulatory and Development Authority (IRDA) was set up in **2000** (the Act was passed in 1999) with **one chairman and five members (two as full time and three as part-time members)** appointed and nominated by the government. The authority is responsible for the **regulation, development and supervision of the Indian insurance industry.**
- **Statement 2 is incorrect** Insurance Laws (Amendment) Act, 2015 increased the permissible limit of foreign direct investment (FDI) from **26 to 49 per cent in the insurance business.**
- The FDI up to 49 per cent is allowed under the automatic route while beyond it the approval of the Ministry of Finance. **Union Budget 2021 increased FDI limit in insurance from 49% to 74%.**
- **Statement 3 is incorrect** FY20, with life insurance penetration at 2.82% and non-life insurance penetration at 0.94%.

**Q.8) With reference to Agricultural Credit in India, consider the following statements:**

1. Regional Rural Banks provide credit particularly to small and marginal farmers, agricultural laborers, artisan and small entrepreneurs.
2. They cannot issue credit cards to its customers.
3. RRB's can access the marginal standing facility of the RBI, if required.

**Which of the statements given above is/are correct?**

- a) 2 and 3 only
- b) 1 only
- c) 1 and 3 only
- d) All of the above

**Ans: (c)**

Exp:

- **Statement 1 is correct:** The Regional Rural Banks were established on the recommendations of **Narasimham Committee on Rural Credit.** It was felt that RRBs would be much better suited than the commercial banks or Co-Operative Banks in meeting the needs of rural areas. **The main objective of RRB is to provide credit and other facilities particularly to small and marginal farmers, agricultural laborers, artisan and small entrepreneurs** and develop agriculture, trade,

commerce, industry, and other productive activities in the rural areas.

- **Statement 2 is incorrect:** In collaboration with their sponsor banks or other banks, **RRBs may issue credit cards/debit cards to their constituents to be able to provide better facilities.** In case any RRB wishes to set up an off-site ATM in its area of operation, it may do so after assessing the cost and benefit.
- **Statement 3 is correct:** Reserve Bank of India(RBI) has allowed regional rural banks (RRBs) to access **the liquidity adjustment facility(LAF), marginal standing facility(MSF)** and call or notice money markets with the aim to facilitate better liquidity management for these lenders.

**Q.9) With reference to Agricultural Credit, consider the following statements:**

1. Microfinance Institutions only cater to the agricultural sector.
2. NABARD gives direct loans to the eligible farmers for targeted delivery of credit.

**Which of the statements given above is/are INCORRECT?**

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

**Ans: (c)**

- **Statement 1 is incorrect:** MFIs are **financial companies that provide small loans to people who do not have any access to banking facilities.** They offer financial services to low income populations. These services include microloans, micro savings and micro insurance.
- **Statement 2 is incorrect:** NABARD provides **Long Term and Medium Term Refinance to banks for providing adequate credit to farmers and rural artisans etc. for their investment activities.** It is intended to create income-generating assets in the following sectors: Agriculture and allied activities. NABARD does not give direct loans to individuals. The selected financial institutions receive fundings from NABARD, and individuals can apply for loans at those selected institution.

**Q.10) With reference to the 'Fiscal marksmanship', which of the following statements is correct?**

- (a) It is the difference between the budgetary expenditures and the government's revenue receipts.

(b) It refers to the accuracy of the government's forecast of fiscal parameters.

(c) It refers to the sharing of tax revenues by the Union government with the states as per the spirit of fiscal federalism.

(d) It is the deflationary effect of a progressive taxation system on a country's economy.

**Ans (b)** Option b is correct.

Fiscal marksmanship essentially refers to the **accuracy of the government's forecast of fiscal parameters such as revenues, expenditures and deficits etc.** In other words, if the difference between what the government projected in the Budget and the actual figures a year later is large then it reflects poor fiscal marksmanship. It helps determine the creditability of the budget numbers of the government.

**Q.11) Consider the following pairs:**

Types of Deficit	Meaning
1. Effective Revenue Deficit	A. Excess of government's revenue expenditure over total receipts.
2. Primary Deficit	B. Indicates the government's borrowings that are utilised to pay the interest on loans
3. Monetised Deficit	C. Part of public deficit financed by borrowings from abroad

**Which of the pairs given above is/are correctly matched?**

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

**Ans (b)** Exp) Option b is correct.

**Pair 1 is incorrect.** The revenue deficit refers to the excess of government's revenue expenditure over revenue receipts (not total receipts).

Revenue deficit = Revenue expenditure – Revenue receipts

On the contrary, **Effective Revenue Deficit is the difference between revenue deficit and grants for creation of capital assets.** The concept of effective revenue deficit was suggested by the

**Rangarajan Committee on Public Expenditure and introduced in 2011-12 budget.** It is aimed to deduct the money used out of borrowing to finance capital expenditure. The concept has been introduced to ascertain the actual deficit in the revenue account after

adjusting for expenditure of capital nature.

**Pair 2 is correct.** Primary deficit is the **difference between the fiscal deficit of the current year and the interest paid by the government on loans obtained in the past.** It indicates the government's borrowings that are utilised to pay the interest on loans rather than on capital expenditure.

**Pair 3 is incorrect.** Monetized deficit is the part of the government deficit which is financed by borrowing from RBI. Monetised deficit, also known as debt monetisation, is the monetary support that Reserve Bank of India (RBI) extends to the Centre as part of the government's borrowing programme. In other words, the term refers to the purchase of government bonds by the central bank to finance the spending needs of the government.

**Q.12) If another global financial crisis happens in the near future, which of the following action/policies are most likely to give some immunity to India?**

- 1. Not depending on short-term foreign borrowings
- 2. Opening up to more foreign banks
- 3. Maintaining full capital account convertibility

**Select the correct answer using the code given below:**

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

**Ans (a)**

Exp) Option a is correct.

**Statement 1 is correct.** The Short-term debts have to be returned at a shorter interval. This renders an economy vulnerable if the economy is already facing economic crisis as it has an obligation to return the debt as well as interest payments (debt service). Example: **Many economies like Mexico, Argentina etc who faced crisis were seen to have borrowed large amounts of short-maturity debt.** So, the ideal scenarios is not to depend upon short-term debt during crisis.

**Q.13) With reference to the Medium-Term Fiscal Policy Statement, consider the following statements:**

1. It sets three-year rolling target for specific fiscal indicators in relation to GDP.
2. It is presented as part of General Budget by the Union government.
3. It is mandated by the Fiscal Responsibility and Budget Management Act, 2003.

**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

**Ans (d)**

**Statement 1 is correct.** The Medium-term Fiscal Policy Statement sets a **three-year rolling target for six specific fiscal indicators in relation to gross domestic product (GDP) at market prices:**

- 1) Revenue Deficit
- 2) Fiscal Deficit
- 3) Tax Revenue
- 4) Primary Deficit
- 5) Non-Tax revenue
- 6) Central Government Debt

**Q.14) Consider the following statements with respect to the impact of high fiscal deficit in an economy:**

1. Decrease in the real interest rates.
2. Decline in bond yields
3. May lead to crowding out of private investments.

**Which of the statements given above is/are correct?**

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

**Ans (c)**

Bond yield is the **return an investor gets on a bond or on a particular government security.** The major factors affecting the yield is the **monetary policy of the Reserve Bank of India, especially the course of interest rates, the fiscal position of the government and its borrowing programme, global markets, economy, and inflation.**

**Statement 1 is incorrect.** Fiscal deficits reduce national savings and increase aggregate demand. This creates an excess supply of

government debt, leading to higher real interest rates. High government borrowings also raise the interest rate and crowd out private investment.

**Statement 2 is incorrect.** High fiscal deficit suggests a busy year for bond issuances and that puts an upward pressure on bond yields. High fiscal deficit leads to an increase in market interest rates. A rising interest rates cause bond prices to fall, and bond yields to rise.

**Statement 3 is correct. High fiscal deficit, when financed through market borrowings, chokes off or 'crowds out' private investment.** A rise in the fiscal deficit raises income, which in turn raises the demand for money. Since the interest rate is determined by the demand for and supply of money, an increase in demand for money inevitably leads to an increase in interest rates. **The rise in interest rate, in turn, chokes off private investment as it raises cost for businesses.** As a result, even when public spending increases, there is no net increase in employment.

**Q.15) If the amount authorized to be expended for a particular service for the current financial year is found to be insufficient for the purpose of that year or when a need for new service has arisen during the current financial year, then which of the following is laid before the parliament?**

- (a) Demand for Excess Grants
- (b) Appropriation bill for grants from Contingency Fund
- (c) Supplementary Demand for Grants
- (d) None of the above.

**Ans (c)**

- In case the amount authorized to be expended for a particular service for the current financial year is found to be insufficient for the purpose of that year or when a need has arisen during the current financial year for supplementary or additional expenditure upon some 'new service' not contemplated in the budget for that year then the President causes to be laid before both the Houses of Parliament another statement showing the estimated amount of that expenditure which is called "**Supplementary Demand for Grants**".
- The "**Supplementary Demands for Grants**" are presented to and passed by the House before the end of the financial year.

**Q.16) Consider the following statements with respect to SARFAESI Act.**

1. The provisions of the SARFAESI Act are not applicable to the Cooperative Banks.
2. The minimum loan size for debt recovery under this act is 20 lakhs rupees.

**Which of the statements given above is/are true?**

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

**Ans (b)**

Exp:

- **Statement 1 is incorrect:** A five-judge Constitution Bench of the Supreme Court (SC) has ruled that **all co-operative banks in the country could make use of the SARFAESI Act to make recovery against defaulting persons.**
- Cooperative banks come under the category of banks as defined under Section 2(1)(c) of the Sarfaesi Act, and the recovery procedures mentioned under that law apply to cooperative banks as well.
- **Statement 2 is correct:** "To improve credit discipline while continuing to protect the interest of small borrowers, for NBFCs with minimum asset size of Rs 100 crores, the minimum loan size eligible for debt recovery under the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, 2002 is proposed to be reduced from the existing level of Rs 50 lakh to Rs 20 lakh," the finance minister said.

**Q.17) Which among the following reports is not published by the World Economic forum?**

- (a) Global Information Technology Report.
- (b) Global Financial Stability Report.
- (c) Travel and Tourism Competitiveness Report.
- (d) Global Competitiveness Report.

**Ans (b)** The Global Financial Stability Report (GFSR) is a **semiannual report by the International Monetary Fund (IMF) that assesses the stability of global financial markets and emerging-market financing.** It is released twice per year, in April and October. The GFSR focuses on current conditions, especially financial and structural imbalances, that could risk an upset in global financial stability and access to financing by emerging-market

countries. It emphasizes the ramifications of financial and economic.

**Q.18) Consider the following statements:**

1. The Blue Box subsidies are not trade distorting while the green box subsidies are specially designed to minimize trade distortions.
2. The per farmer Amber Box subsidy in India is less as compared to the same given in the developed countries.
3. The De-minimis entitlement of the subsidy under the Amber Box applies to both the developed and developing countries.

**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

**Ans (b)**

- **Statement 1 is incorrect:** The WTO's Agreement on Agriculture allows a **minimum amount of trade distorting subsidies for both the developed and developing countries to ensure food security of the country.** These subsidies are classified under three boxes namely, the Green box, the Blue box, and the Amber box subsidies. **The Green box subsidies do not distort the trade and hence there is no limit on them. The Blue Box subsidies are also provided without any limits.** The subsidies under the Blue box are allowed by the WTO with the condition that they must be designed to reduce the trade distortion.
- **Statement 2 is correct:** The per farmer Amber box subsidy is **more for the USA than for India.** Even though India provides for a greater percentage of subsidies, it is more per farmer for the USA than for India.
- **Statement 3 is correct:** The Amber Box provides limitations on the subsidies for both the developed and the developing countries. **Developed countries are entitled to provide subsidies worth 5% of their production while for the developing countries, the limit is 10%.**

**Q.19) Consider the following:**

1. Revenue Deficit
2. Capital Expenditure
3. Effective Revenue Deficit

**Grants or expenditure used for creation of Assets are calculated under which of the given heads?**

- (a) 1 and 3 only

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

**Ans (c)**

Exp:

• **Statement 1 is Incorrect:** Revenue Deficit is the difference between the government's revenue expenditure and revenue receipts. Revenue deficit neither creates assets nor reduces liabilities. Revenue Deficit implies that the government's current expenses are more than its current revenues and will have to use up the savings of other sectors of the economy to finance its consumption expenditure.

• **Statement 2 is Correct:** Those expenses of the government which either creates assets (physical or financial) or reduces liabilities are called capital expenditures. **Capital expenditures include acquisition of land, building, machinery, equipment, purchase of shares by the government and loans and advances by the central government to state and union territory governments, PSUs and other parties.**

• **Statement 3 is Correct:** There are several grants given by the Central Government to the States / UTs which come under revenue expenditure for the central government but some of these grants create assets, which are owned by the State government and not by the Central government.

Hence, for the Central Government it is basically revenue expenditure but ultimately it is creating assets for the State government.

Hence, "effective revenue deficit" is calculated which excludes such grants which are used for creation of assets.

**Q.20) How inclusive growth can be brought in India?**

1. Encourage job creation in the formal sector
2. Strengthen accountability within the education sector
3. Foster investment by promoting responsible business conduct
4. Empower local governments to take responsibility for infrastructure projects

**Select the correct answer using the code given below.**

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

**Ans (d)**

Inclusive growth is economic growth that is **distributed fairly across society and creates opportunities for all**. The following measures may bring inclusive growth in India.

**Statement 1 is correct:** Encourage job creation in the formal sector by **reducing the administrative burden for dismissal faced by large firms, while strengthening the public employment service, training and re-employment support.**

**Statement 2 is correct:** Strengthen accountability within the education sector, and raise the quality of teaching, including through better school infrastructure.

**Statement 3 is correct:** Foster investment by promoting responsible business conduct and further easing restrictions on foreign direct investment.

**Statement 4 is correct:** Empower local governments to take responsibility for infrastructure projects, and ensure that higher levels of government provide incentives for cross-jurisdictional co-ordination.

**Q.21) With reference to monetary policy of India, why Consumer Price Index (CPI) was chosen as a measure for flexible inflation targeting in India?**

1. It reflects the cost of living.
2. It is used as a reference in wage contracts.
3. It includes food and fuel.
4. It gives a picture of prices of goods before the retail level

**Which of the statements given above is/are correct?**

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

**Ans (a)**

Based on **Urjit Committee Report to Revise and Strengthen the Monetary Policy Framework (2014)**, Flexible inflation targeting was adopted in 2016. The Committee recommended that **RBI should adopt Inflation Metric, and in this All-India Consumer Price Index (CPI)** - Combined should be adopted as the measure of the nominal anchor. In this, Headline inflation was preferred against core inflation (headline inflation excluding food and fuel inflation).

**Statement 1 is correct:** CPI was chosen because it measures the inflation at which **consumer**



**buys goods and services.** Therefore, it closely reflects the cost of living and influences inflation expectations relative to other available metrics.

**Statement 2 is correct.** CPI is also used as a reference in **wage contracts and negotiations.** Therefore, it can also be easily understood.

**Statement 3 is correct.** Headline inflation was preferred over core inflation. It **includes food and fuel comprise which constitutes more than 50% of the consumption basket and which cannot be discarded.**

**Statement 4 is incorrect.** It is wholesale price index (WPI) which measures and tracks the changes in the price of goods in the stages before the retail level. i.e., goods that are sold in bulk and traded between entities or businesses (instead of between consumers which is done by CPI at retail level.)

**Q.22) With reference to the financial sector, consider the following statements:**

1. The financial institutions which operate in both the physical and digital world are called Neo banks.
2. No interest rate is charged in case of the Islamic banking.
3. The Non-Banking Financial Companies (NBFC) s are part of the Shadow Banking in India.
4. The Regional Rural Banks and Cooperative banks are the part of differential banking in India.

**Which of the statements given above is/are incorrect?**

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

**Ans (c).**

Statement Type Description

**Statement 1 is incorrect-** Neo Banks These are the **financial technology (fintech) companies that operate solely digitally or via mobile apps.** In other words, it can be said that neo-banks are online-only or digital banks without any physical branches.

**Statement 4 is incorrect-** Differential Banking Differentiated banks are **banking institutions licensed by the RBI to provide specific banking services and products.** Differentiated banks licensing was launched in 2015. **The differentiated banks are of two types-payment banks and small finance banks.** Main aim for

giving license to differentiated banks is to promote financial inclusion and payments

**Q.23) Which of the following is correct with reference to Digital payment index?**

- (a) It is released by the National Payments Corporation of India.
- (b) It aims to capture the extent of digitization of payments across the world.
- (c) It comprises of 5 broad parameters that enable measurement of deepening and penetration of digital payments in the country over different time periods.
- (d) It is published on an annual basis.

**Ans (c)** The RBI-DPI comprises 5 broad parameters that enable measurement of deepening and penetration of digital payments in the country over different time periods.

**5 Parameters:**

- 1) Payment Enablers (weight 25%),
- 2) Payment Infrastructure – Demand-side factors (10%),
- 3) Payment Infrastructure – Supply-side factors (15%),
- 4) Payment Performance (45%) and
- 5) Consumer Centricity (5%)

**Q.24) Consider the following statements:**

1. If Reserve bank of India reduces the cash reserve ratio it will decrease the money supply in economy.
2. The lowering of bank rate by the Reserve bank of India leads to more liquidity in the market.
3. An increase in Statutory Liquidity Ratio rate means that commercial banks shall have to invest more money in Government and other approved securities.
4. Loan-to-value is a ratio used in mortgage lending to determine the amount necessary to put in a down-payment.

**Which of the statements given above are correct?**

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

**Ans (b)**

**Statement 1 is incorrect:** The Reserve Bank of India or RBI mandates that banks store a proportion of their deposits in the form of cash so that the same can be given to the bank's

customers if the need arises. **The percentage of cash required to be kept in reserves, vis-a-vis a bank's total deposits, is called the Cash Reserve Ratio.** The cash reserve is either stored in the bank's vault or is sent to the RBI. Banks do not get any interest on the money that is with the RBI under the CRR requirements.

**Q.25) Which of the following statements is/are correct regarding the 'Cooperative Societies' in India?**

1. They provide loans at low interest rates and flexible repayment terms.
2. They provide producers with a platform to sell their products to consumers.
3. They distribute profits from its operations among their members as a dividend.

**Which of the statements given above are correct?**

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

**Ans (d)**

**Cooperatives are enterprises which are owned, controlled and run by its members to realize their common economic, social, and cultural needs and aspirations.** Cooperative societies function for a common benefit with a motive to help its members.

**Statement 1 is correct.** The role of cooperatives in rural development is very significant and beneficial for the rural economy. **Cooperative societies help their members – individuals or small businesses – in rural areas with financial assistance.** Credit Cooperative societies are involved in disbursing loans at low rates of interest and flexible repayment terms. **The role of cooperatives in rural development is crucial as they protect their members from private moneylenders who give loans at very high-interest rates.**

**Statement 2 is correct.** Cooperative societies help small scale entrepreneurs procure raw materials at cheaper rates to reduce their cost of production. They also provide producers with a platform to sell their products directly to consumers. Removing intermediaries helps to cut down the selling price and ensure higher sales and profits for producers.

**Statement 3 is correct.** Cooperatives distribute profits from the operations among their

members as a dividend, thereby serving the economically weaker sections of rural communities.

**Q.26) With reference to India's Five -Year Plans, which of the following statements is/are correct?**

1. From the Second Five -Year Plan, there was a determined thrust towards substitution of basic and capital good industries.
2. The Fourth Five -Year Plan adopted the objective of correcting the earlier trend of increased concentration of wealth and economic power.
3. In the Fifth Five -Year Plan, for the first time, the financial sector was included as an integral part of the Plan.

**Select the correct answer using the code given below.**

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

**Ans (a)**

**Statement 1 is correct.** From the Second Five -Year Plan, there was a determined thrust towards substitution of basic and capital good industries

**Statement 2 is correct.** The Fourth Five -Year Plan adopted the **objective of correcting the earlier trend of increased concentration of wealth and economic power.**

**Statement 3 is incorrect.** For the first time in Indian planning, Financial sector became an integral part of the plan in the Ninth Five – Year Plan.

**Q.27) In the context of international trade, which one of the following conditions make a product eligible for 'Countervailing duty'?**

- (a) When the product has potential of harming the environment of destination country.
- (b) When the product has potential of destabilising the currency of importing country.
- (c) When the product has not followed the international sanitary rules while production process.
- (d) When the product has received unfair advantage through export subsidy in the source country.

**.Ans (b)**

**Exp) Option b is correct.**

A decline in the value of a country's currency brings currency crisis. **In this situation, there is speculation in the market that the central bank of the country does not have sufficient foreign exchange reserves.**

**Statements 1 and 3 are correct.** The foreign currency earnings of India's IT sector and remittances increase country's foreign reserves, thus increasing demand for Indian currency and reducing risk of currency crisis.

**Statement 2 is incorrect.** Increasing the government expenditure does not bring foreign currency in the country.

**Q.28) In the context of India, which of the following factors is/are contributor/ contributors to reducing the risk of a currency crisis?**

1. The foreign currency earnings of India's IT sector
2. Increasing the government expenditure
3. Remittances from Indians abroad

**Select the correct answer using the code given below.**

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

**Ans (b)**

**A decline in the value of a country's currency brings currency crisis.** In this situation, there is speculation in the market that **the central bank of the country does not have sufficient foreign exchange reserves.**

**Statements 1 and 3 are correct.** The foreign currency earnings of India's IT sector and remittances increase country's foreign reserves, thus increasing demand for Indian currency and reducing risk of currency crisis.

**Statement 2 is incorrect.** Increasing the government expenditure does not bring foreign currency in the country.

**Q.29) The problem of international liquidity is related to the non-availability of**

- (a) Goods and services
- (b) Gold and silver
- (c) Dollars and other hard currencies
- (d) Exportable surplus

**Ans (c)**

**International liquidity consists essentially in the resources available to national monetary**

**authorities to finance potential balance of payments deficit.** It may consist in the possession of assets like **gold, foreign exchange and in the ability to borrow internationally.** Thus, in its international setting, liquidity includes all those assets including SDRs which are generally acceptable without loss of value for settling international debts. It may include the following:

**Gold stocks with the Central Banks and with the IMF, foreign exchange reserves of countries, drawing rights of member countries with IMF, credit arrangements between countries, country's capacity to borrow in the money markets of another country, Euro-Dollars SDRs etc.**

**Q.30) Which of the following are the favorable manufacturing techniques from the perspective of a circular economy?**

1. Increasing the life of a product.
2. Short term renting of electronic gadgets.
3. Avoidance of single use plastics.
4. Sharing a business platform for mutually compatible purposes.

**Select the correct answer using the codes given below:**

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

**Ans (d)** A circular economy is the one in the **product or the raw material used in the production process is recovered completely without any wastage.** The main aim of the circular economy is to **leave nothing as a waste.** The products that have a greater life cycle are likely to be part of the system for longer duration before they are being recycled and reused and hence would aid in the concept of circular economy. **The renting of unused or old electronic gadgets is a practice that would limit the generation of e-waste considerably.** The **single use plastics have been a menace for quite a time and most governments are striving hard to phase them out.** They even harm the aquatic and the terrestrial environment. Sharing of platforms and infrastructure like office spaces, etc. by mutually compatible businesses also reduces the need for creation of new ones.

**Q.31) In relation to the Telecom operations in India, consider the following statements:**

1. The present system provides separate procedures for obtaining the license and the spectrum for the operation.
2. Adjusted Gross Revenue is an annual fee paid by private operators to the Government.

**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

**Ans (c)**

The allocation of spectrum is delinked from the licenses and has to be obtained separately as per prescribed procedure. What is AGR? **Adjusted Gross Revenue (AGR) is the usage and licensing fee that telecom operators are charged by the Department of Telecommunications (DoT).** It is divided into spectrum usage charges and licensing fees, pegged between 3-5 percent and 8 percent respectively.

**Q.32) Consider the following reforms regarding Manufacturing in India:**

1. Environmentally sustainable growth.
2. Increase in Global competitiveness.
3. 100 million additional jobs by 2025.
4. 10% increase in the share of Manufacturing in GDP.

**Which of the above are enumerated in the Make in India programme of the government?**

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

**Ans (c)** The Make in India program of the Government of India was launched in 2014 to boost the manufacturing sector of the country. It is comprised of the following targets, i.e.

- ✓ Increase in the growth of the manufacturing sector to 12-14% of the GDP annually,
- ✓ Increase in the share of manufacturing sector to the GDP from 15 to 25% by 2025,
- ✓ Creation of 100 million jobs by 2022 in the manufacturing sector,

- ✓ Enhancement of the competitive advantage of the Indian Industrial sector in relation to the world,
- ✓ Creation of skills amongst the youths and the rural poor.

**Q.33) In the midst of COVID pandemic, it is believed that Atmanirbhar Bharat is the need of the hour.**

**Which of the following would aid India in its path of Self-reliance or Atmanirbhar?**

1. Disinvestment of the PSUs.
2. Ease of Doing Business.
3. Credit Guarantee for the MSMEs.
4. Networked Products.
5. Increasing FDI

**Select the correct answer using the codes given below:**

- (a) 1, 2, 3, and 4
- (b) 1, 2, 3, 4 and 5
- (c) 2, 4, and 5
- (d) 2, 3, and 5

**Ans (b) All the statements are correct**

**Q.34) GST is slated to replace what kinds of taxes?**

- (a) Service tax
- (b) Central excise tax
- (c) Entertainment tax
- (d) All the above taxes

**Ans (d)** At the State level, the following taxes are being subsumed: a. **Subsuming of State Value Added Tax/Sales Tax**, b. **Entertainment Tax** (other than the tax levied by the local bodies), Central Sales Tax (levied by the Centre and collected by the States), c. **Octroi and Entry tax**, d. **Purchase Tax**

**Q.35) What are the proposed benefits of GST?**

1. Overall reduction in prices for consumers.
2. Reduction in multiplicity of taxes, cascading and double taxation.
3. Decrease in 'black' transactions.

**Choose the correct option.**

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

**Ans (d)** All are the possible benefits of GST.

**Q.36) Which of the following products are outside the purview of GST?**

1. Alcohol for human consumption
2. Electricity
3. Medicines

**Choose the correct option.**

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

**Ans (d)** GST is applicable in the **pharmaceutical sector on medicines, drugs and medicinal supplies in our country.** At present not on Electricity and Alcohol.

**Q.37) Which of the following are Non-tax revenue receipts?**

1. Profits and dividends
2. Disinvestment proceeds
3. Fees, Penalties and Fines
4. Grants
5. Interests received

**Select the correct answer code:**

- (a) 1, 2, 3, 4
- (b) 1, 3, 4, 5
- (c) 3, 4, 5
- (d) 1, 2, 3, 4, 5

**Ans (b)** Receipts obtained from the **sale of shares in Public Sector Undertakings (PSUs) are called disinvestments.** These are capital receipts. **Dividends on investment made by government is a revenue receipt,** as it does not add to liability or reduction in assets of the government.

**Q.38) Consider the following statements:**

1. Goods and Services Tax Network (GSTN) is a non-profit organisation formed to provide IT infrastructure and services to the Central and State Governments, taxpayers and other stakeholders for the implementation of GST.
2. The government of India holds a 51% stake in GSTN.

**Which of the following statement(s) is/are correct?**

- (a) 1 and 2
- (b) 1 only
- (c) 2 only
- (d) None

**Ans (b)** Private players own a 51% share in the GSTN, and the government owns the rest. The authorized capital of the **GSTN is Rs 10 crore (US\$1.6 million), of which 49% of the shares are divided equally between the Central and State governments, and the remaining is with private banks.**

**Q.39) Consider the following statements regarding cess and surcharge.**

1. A cess imposed by the central government is a tax on tax, levied by the government for a specific purpose.
2. Surcharge is charged on the tax to be paid.
3. The Centre need not share both Cess and Surcharges with states.
4. The proceeds collected from a *surcharge* and a cess form part of the Public Account of *India*.

**Which of the above statements is/are correct?**

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

**Ans (a)** Cess and surcharges are **levied by the Central government for the purposes of the Union under Article 271 of the Constitution of India.** The proceeds of such surcharge and cess go towards meeting certain specific needs such as financing of centrally-sponsored schemes. **A cess is a tax on tax.** The Central Government levies both cess and surcharge. Both are collected and taken into the Consolidated Fund of India.

**Q.40) Consider the following statements regarding Revenue Expenditure.**

1. Revenue Expenditure is expenditure incurred for purposes other than the creation of physical or financial assets of the Government.
2. Interest payments on debt incurred by the government and repayment of debt forms the part of Revenue Expenditure.

**Which of the above statements is/are correct?**

- (a) 1 only

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

**Ans (a)** Repayment of loan is a **capital expenditure** as it causes reduction in liabilities of the government

**Q.41) Consider the following statements regarding Transfer payments.**

1. They consist of remittances, gifts and grants.
2. They could be given by the government or by private citizens living abroad.
3. They also include payments made by the government to its employees.

**Which of the above statements is/are correct?**

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

**Ans (b)** Transfer payments are payments made, typically by **government or governmental agencies**, to individuals who are in need of such assistance. Unlike common payment, there is no reception of goods and services in return.

**Q.42) Consider the following statements regarding Methods of Taxation.**

1. Proportional taxation have fixed rates for every level of income or production.
2. Regressive taxation has increasing rates of tax for increasing value or volume on which the tax is being imposed.
3. Progressive taxation has decreasing rates of tax for increasing value or volume on which the tax is being imposed.

**Which of the above statements is/are correct?**

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

**Ans (a)** A **progressive tax is characterized by a more than proportional rise in the tax liability relative to the increase in income**, and a regressive tax is characterized by a less than proportional rise in the relative burden.

**Q.43) Consider the following statements:**

1. GST Cess is also applicable on imported goods.
2. The taxpayers who have opted for the GST composition scheme are not liable to collect and remit the GST compensation cess to the central government.

**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

**Ans (c)** All the taxpayers, except those who export specific notified goods and those who have opted for GST composition scheme, are liable to collect and remit the GST compensation cess to the central government. Subsequently, the central government distributes it to the relevant states. **All the taxpayers, except those who export specific notified goods and those who have opted for GST composition scheme, are liable to collect and remit the GST compensation cess to the central government.** Subsequently, the central government distributes it to the relevant states.

**Q.44) The PM VIKAS Scheme, launched in the Union Budget 2023-24 deals with which among the following?**

- (a) Empowerment of Panchayats at the village level.
- (b) Development of border villages
- (c) Support Agri-tech startups by young entrepreneurs.
- (d) Support artisans and craftsmen in India

**Ans (d)** Pradhan Mantri Virasat Ka Samvardhan (PM VIKAS), is a **skilling initiative from MoMA focussing on the skilling, entrepreneurship and leadership training requirements** of the minority and artisan communities across the country.

**Q.45) With reference to Borrowing powers of States, Consider the following statements:**

1. The State Governments have been allowed to borrow directly from the International agencies subject to fulfilment of certain criteria.
2. The Centre has been empowered to fix borrowing limits on the States.

**Which of the statements given above is/are correct?**

- (a) 1 only

- (b) 1 and 2 only
- (c) 2 only
- (d) None.

**Ans (b)** Both the statements are correct.

**Q.46) Consider the following statements:**

1. The money raised through the small savings schemes such as Post- office deposits, Public Provident Fund etc. get deposited into the Consolidated Fund of India.
2. The interest rate on the small savings schemes is completely market determined.

**Which among the statements given above is/are correct?**

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

**Ans (d)** To de-link small savings transactions from the Consolidated Fund of India and ensure their operation in a transparent and self-sustaining manner.

Since NSSF operates in the public account, its transactions do not impact the fiscal deficit of the Centre directly. Interest rates and decided by government.

**Q.47) With reference to Municipal Bonds in India, consider the following statements:**

1. The Lucknow Municipal Corporation recently became the first city in India to issue Municipal Bonds.
2. Presently, there are no guidelines laid down by the SEBI for the issuance of Municipal Bonds.

**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

**Ans (d)** Both statements are incorrect.

**Q.48) With respect to Credit Information companies, consider the following statements:**

1. The Credit Information companies are regulated by SEBI.
2. Credit Information Bureau India Limited (CIBIL) is a public sector owned credit information company.

**Which among the statements given above is/are correct?**

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

**Ans (d)** CIBIL is not a government organization. It is authorised by the Reserve Bank of India (RBI), and falls under the regulation of the Credit Information Companies

**Q.49) With reference to the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), consider the following statements:**

1. It guarantees 100 days of skilled manual work a year to every rural adult.
2. All districts except for those that have a 100% urban population are covered under it.
3. It is monitored by the Ministry of Labour and Employment.
4. The number of days can be enhanced to 150-200 days depending on the vulnerability in a particular state.

**Which of the statements given above is/are correct?**

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

**Ans (c)**

The National Rural Employment Guarantee Act, 2005 introduced the scheme. In 2010, NREGA renamed as MGNREGA. It is one of the world's largest employment guarantee programs.

**Statement 1 is incorrect:** Under the scheme, every rural household whose adult member volunteers to do unskilled manual work is entitled to get at least 100 days of wage employment in a financial year. It aims to enhance the livelihood security of people.

**Statement 2 is correct:** The Act currently covers all districts except for those that have a 100% urban population.

**Statement 3 is incorrect:** Ministry of Rural Development (MRD), Government of India in association with state governments monitors the implementation of the scheme.

**Statement 4 is correct:** The government can enhance the number of days to 150-200 days depending on the vulnerability in a particular state. **The states can increase it as done by**

**Odisha and Himachal Pradesh which have added 50 days and made it 150 days in a year.**

**Knowledge Base:**

The scheme was initially launched in the **200 most backward rural districts of the country in 2006-07**. It was later extended to an additional 130 districts during 2007-08 and to the entire country from 2008-09 onward.

**Q.50) Why women compared to men have a higher incidence of poverty?**

1. The income disparity between men and women
2. Women are increasingly employed in the unorganized sector
3. Generally, women are not entitled to property ownership

**Select the correct answer using the codes given below:**

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

**Ans (d)**

**Option 1 is correct.** Women make a substantial proportion of poor people. Studies have shown that **women headed household in rural areas are the poorest**. The income disparity between men and women is evident due to vast differentials in wages paid to men and women.

**Option 2 is correct.** Women are increasingly employed in **the unorganized sector as unskilled labour**. They are also engaged in home-based work where they get low wages. **Female-headed households are often poor, as women do not get jobs or credit to set up their own businesses**. In recent years, the term '**feminization of poverty**' is used to denote the specific characteristics of poverty where women are directly affected adversely as a result of development process.

**Option 3 is correct.** **Six out of ten of the world's poorest people are women who must, as the primary family caretakers and producers of food**, shoulder the burden of tilling land, grinding grain, carrying water and cooking. This is no easy burden. In Kenya, women can burn up to 85 percent of their daily calorie intake just fetching water. Yet some 75 percent of the world's women cannot get bank loans because they have unpaid or insecure jobs and are not entitled to property ownership.

**Q.51) Consider the following statements with reference to the Extended Fund Facility:**

1. Extended fund facility provides rapid financial assistance with limited conditionality to low-income countries facing balance of payments crisis.
2. It is a fund created by Asian development bank.
3. The cost of borrowing is tied to the market-related interest rate.
4. Extended Fund Facility is guided by a country's financing needs, capacity to repay, and track record with past use of fund.

**Which of the statements given above is/are correct?**

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

**Ans (c)**

The EFF was established to provide assistance to countries experiencing serious payment imbalances because of structural impediments or slow growth and an inherently weak balance-of-payments position.

**Statement 1 is incorrect:** The Rapid Credit Facility (RCF) provides rapid financial assistance with limited conditionality to low-income countries (LICs) facing an urgent balance of payments need under international monetary fund. **The Extended Credit Facility (ECF) provides financial assistance to countries with protracted balance of payments problems.** The ECF succeeds the Poverty Reduction and Growth Facility (PRGF) as the Fund's main tool for providing medium-term support LICs, with higher levels of access, more concessional financing terms, more flexible program design features, as well as streamlined and more focused conditionality.

**Statement 2 is incorrect:** It is a fund created by **International monetary fund for helping economies to address serious medium-term balance of payments** problems because of structural weaknesses that require time to address. Assistance under an extended arrangement features longer program engagement to help countries implement medium-term structural reforms with a longer repayment period.

**Q.52) Consider the following statements:**



1. Central and State Governments' budgeted expenditure on health sector reached 2.1 percent of GDP in 2021-22.

2. During the last five years, social services accounted for about 25 percent of the total Government expenditure (Centre and States taken together).

3. General Government expenditure in education sector (in absolute terms) is consistently increasing in the past 5 years.

**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

**Ans (d)**

**Statement 1 is correct.** The National Health Policy, 2017 envisaged to **increase government's health expenditure to 2.5 percent of GDP by 2025.** In keeping with this objective, Central and State Governments' budgeted expenditure on health sector reached 2.1 percent of GDP in 2021-22, against 1.3 percent in 2019-20.

**Statement 2 is correct.** During the last five years, social services accounted for about **25 percent of the total Government expenditure (Centre and States taken together).** In 2021-22 (BE), it was 26.6 percent.

**Statement 3 is correct.** Government expenditure in education sector in past 5 years has been consistently increasing.

**Q.53) Consider the following pairs:**

Economic Curves	Details
1. Kuznets Curve:	demonstrates that economic growth initially leads to greater inequality.
2. Lorenz Curve	Wealth distribution within a population
3. Philips Curve	Relation between tax rate and tax revenue

**Which of the pairs given above is/are correct?**

- (a) 1 only

(b) 1 and 2 only

(c) 3 only

(d) 2 and 3 only

**Ans (b)**

**Pair 1 is correct:** The Kuznets curve is a **hypothetical curve that graphs economic inequality against income per capita over the course of economic development** (which was presumed to correlate with time). It is used to demonstrate the hypothesis that economic growth initially leads to greater inequality, followed later by the reduction of inequality. **The idea was first proposed by American economist Simon Kuznets**

**Q.54) With reference to the land holdings in India, consider the following statements:**

1. Women hold less than 15% of the total agriculture land holdings in India.

2. Small and marginal farmers with less than two hectares of land own more crop area than semi-medium and medium farmers owning 2-10 hectares of land.

**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

**Ans (c)**

Women constitute a third (32%) of India's agricultural labour force and contribute 55-66% to farm production. Yet, they hold only 12.8% of operational holdings in India.

**Statement 1 is correct:** According to an index prepared using data on women's operational holdings from **the agriculture census of 2011, only 12.9% of Indian women hold land on an average.** In the southern states, an average of 15.4% of women hold land, and in the north-eastern states, 14.1%. **With these low figures, these states still outperform the northern states where 9.8% of women hold land, and the eastern states where 9.2% of women do.**

**Statement 2 is correct:** According to 10th Agricultural Census 2015-16, small and marginal farmers with less than two hectares of land account for 86.2% of all farmers in India, but own just 47.3% of the crop area.

**Q.55) This kind of duty is levied on the imported goods when there is a serious impairment in the**

position of the domestic industry. It is a temporary relief provided when imports of a product increase unexpectedly to a point where they threaten domestic manufacturers of similar products. It is done due to flooding of the domestic market by the imported goods. And such goods are absolutely or relatively cheaper than domestic goods. As a result, the substantial domestic market share has gone to the imported goods and domestic players are struggling. This refers to?

- (a) Basic Custom Duty (BCD)
- (b) Good and Services Tax (GST)
- (c) Countervailing duty (CVD)
- (d) Safeguard Duty (SD)

**Ans (d)**

**Q.56) With reference to various duties imposed on the imported goods, consider the following pairs**

Duty	Description
1. Countervailing duty	Against the imported products that are heavily subsidized by exporting countries
2. Anti-Dumping	Against imported products which are sold at price much below the fair market price
3. Basic Customs Duty	Imposed on the value of the goods at a rate under the Customs Act, 1962

**Which of the pairs 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

**Ans (d)**

There are various extra import duties that are imposed on goods in addition to the normal duties that apply on the imported products.

These duties apply to imported goods that are sold in the market at prices substantially lower than their normal value.

**Pair 1 is correct:** The Countervailing duty (CVD) is imposed by the importing nation on imports if the exporting nation is found to offer export subsidies to their exports. **This measure aims at balancing the price of imports with the domestic products.** This duty is imposed in such a way that imported item also remains competitive.

**Pair 2 is correct:** The Anti-Dumping Duty is imposed by the importing nation in case the exporting country is found to export the goods at price much below fair market price (it means the exporting nation is dumping the item in the importing nation).

**Pair 3 is correct: Basic custom duty is the duty imposed on the value of the goods at a specific rate.** The duty is fixed at a specified rate of ad-valorem basis. Basic customs duty is a type of duty or tax imposed under the Customs Act, 1962. The basic customs duty varies for different items and the Central government has the power to reduce or exempt any goods from the charge

**Q.57) Farmers are using direct seeding of rice (DSR) technique to grow paddy instead of traditional 'transplanting' practice. In this context, which of the following is/are the benefits of 'Direct Seeded Method'?**

- 1. Reduced methane emission
- 2. Higher yields of the rice crop
- 3. Solution to the issue of stubble burning
- 4. Lower susceptibility to Pests and insects
- 5. Early crop maturity

**Select the correct answer using the codes given below:**

- (a) 1, 2 and 4 only
- (b) 1, 3 and 5 only
- (c) 2, 3 and 5 only
- (d) 1, 2, 3, 4 and 5

**Ans (b)**

This question is based on the article "Run-up to COP26: Wonder rice may help reduce emissions, offer good yield" published in Business Standard on 30th Oct 2021. **Punjab Farmers are using direct seeding of rice (DSR) technique to grow paddy instead of traditional 'transplanting' practice** due to labour shortage following an exodus of migrant labourers amid the COVID-19 pandemic. **Direct Seeding of Rice (DSR) refers**

**to the process of establishing a rice crop from seeds sown in the field rather than by transplanting seedlings from nursery.** In transplanting, farmers prepare nurseries where paddy seeds are first sown and raised into young plants. These seedlings are then uprooted and replanted 25-35 days later in the main field with standing water.

**Option 1, 3 and 5 are correct.** DSR method with reduced tillage is an efficient resource conservation technology that holds great promise in the Indo-Gangetic Plains in view of **the following advantages:**

- 1) Saving in water up to 25% in DSR
- 2) Saving in energy up to 27% of diesel as pumping energy is saved for field preparation, nursery raising, puddling and reduced frequency of applying irrigation water
- 3) Saving of 35-to-40-man days / ha
- 4) Enhanced fertilizer use efficiency due to placement of fertilizer in the root zone
- 5) Early maturity of crops by 7-10 days helps in timely sowing of succeeding crops
- 6) Reduction in methane emissions and global warming potential
- 7) Little disturbance to soil structure
- 8) Enhanced system productivity
- 9) Could be a solution to the issue of stubble burning.

**Option 2 and 4 are incorrect.** However, Direct Seeded Method (DSR) despite being eco-friendly has not witnessed large scale adoption due to complaints of low yields and increased susceptibility to pests. The other disadvantages of DSR methods are:

- 1) Seeds are exposed to rat and bird attacks
- 2) Sowing needs to be done timely so that the plants come out properly before the monsoon rains arrives and
- 3) Seed requirement is also high

**Q.58) 'One Nation One Standard' scheme is related to which of the following?**

- (a) It is about developing different templates of standard for a given agricultural product.
- (b) It is about synergizing standards adopted by various Standard Development Organisations in the country.
- (c) It is about the nation-wide portability of ration cards under National Food Security Act (NFSA).
- (d) It is about enabling seamless travel by different transport systems across the country.

**Ans (b)**

One Nation, One Standard scheme has been launched with an **aim to synergize standards adopted by various Standard Development Organisations in the country.** The voluntary integration scheme of multiple standard formulating bodies will bring uniformity in the quality of goods & services produced in the country and **will boost the 'Brand India' image.** The mission was envisioned on **the line of 'one nation, one ration card' scheme in order to ensure quality products in the country.**

The idea is to develop one template of standard for one given product instead of having multiple agencies set it. The purpose of setting standards and enforcing them is to ensure that quality products are made available to consumers.

**To attain the "One Nation One Standard" vision of Government of India, BIS, the National Standards Body, has launched a scheme that provides for "Recognition of SDO".** The recognition is valid for 3 years and will require renewal after completion of the validity period

**Q.59) Which of the following statements is/are correct with regard to 'tokenisation'**

1. It refers to the replacement of actual card details with a unique alternate code called the 'token', which shall be unique.
2. The current Card-on-File system (CoF) can be easily breached, and the data can be stolen. So, to take care of the security concerns, RBI has come up with the Tokenization system.

**Select the correct options:**

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) None

**Ans (c)** All of the above. C is right answer. It refers to the replacement of actual card details with a unique alternate code called the 'token', which shall be unique for a combination of card, token requester (i.e., the entity which accepts requests from the customer for tokenisation of a card and passes it on to the card network to issue a corresponding token) and the device. **A CoF transaction is a transaction where a cardholder has authorised a merchant to store the cardholder's Mastercard or Visa payment details.**

**Q.60) Consider the following statements:**

1. The IFSCA was established in 2020 under the International Financial Services Centres Authority Act, 2019.
2. The IFSCA is a unified authority for the development and regulation of financial products, financial services and financial institutions in the International Financial Services Centre (IFSC) in India.
3. Prior to the establishment of IFSCA, the domestic financial regulators, namely, RBI, SEBI, etc. regulated the business in IFSC

**Which of the above statements are correct:**

- (a) 1 and 2
- (b) 1 and 3
- (c) All of the above
- (d) 2 and 3

**Ans (c)** All of the above.

**Q.61) Assertion (A):** Public sector were given leading role in industrial development during planning period.

**Reason(R):** Many Indian industrialists did not have the capital to undertake investment in industrial ventures required for the development of Indian economy.

- (a) Both A and R are true and R is the correct explanation of A
- (b) Both A and R are true, but R is not a correct explanation of A
- (c) A is true, but R is false
- (d) A is false, but R is true

**Ans (a)** is the correct answer.

**Assertion and Reason are correct**

At the time of independence, Indian industrialists did not have the capital to undertake investment in industrial ventures required for the development of Indian; nor was the market big enough to encourage industrialists to undertake major projects even if they had the capital to do so. It is principally for these reasons that the erstwhile governments had to play an extensive role in promoting the industrial sector.

1) In addition, the decision to develop the Indian economy on **socialist lines led to the policy of the government controlling the commanding**

**heights of the economy**, as the Second Five Year plan put it. This meant that the government would have complete control of those industries that were vital for the economy. The policies of the private sector would have to be complimentary to those of the public sector, with the public sector leading the way.

**Q.62) With reference to India's Five -Year Plans, which of the following statements is/are correct?**

1. From the Second Five -Year Plan, there was a determined thrust towards substitution of basic and capital good industries.
2. The Fourth Five -Year Plan adopted the objective of correcting the earlier trend of increased concentration of wealth and economic power.
3. In the Fifth Five -Year Plan, for the first time, the financial sector was included as an integral part of the Plan.

**Select the correct answer using the code given below.**

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

**Ans (a)**

**Statement 1 is correct.** From the Second Five -Year Plan, there was a determined thrust towards substitution of basic and capital good industries. **India adopted the strategy of Import Substitution Industrialization (ISI) with the objective to build a self -reliant economy.**

**Statement 2 is correct.** The Fourth Five -Year Plan adopted the **objective of correcting the earlier trend of increased concentration of wealth and economic power.** The Plan now aimed to assist the less prosperous sections of agriculture to improve their position and make a yet bigger contribution to the national economy.

**Statement 3 is incorrect.** For the first time in Indian planning, Financial sector became an integral part of the plan in the Ninth Five – Year Plan.

**Q.63) Consider the following statements:**

1. In terms of short-term credit delivery to the agriculture sector, District Central Cooperative Banks (DCCBs) deliver more credit in comparison to Scheduled Commercial Banks and Regional Rural Banks.

2. One of the most important functions of DCCBs is to provide funds to the Primary Agricultural Credit Societies.

**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

**Ans (b)**

**Statements 1 is incorrect.** Scheduled commercial banks contributed the major share (78 – 80 per cent) in agricultural and allied credit. Co-operative institutions also play a significant role in extending agricultural credit and the share of all co-operative banks/institutions (i.e. StCBs, District Central Cooperative Banks (DCCBs) and PACS put together) constituted 15-16 per cent. **The RRBs contributed the remaining 5 per cent of the agricultural credit.**

**Statements 2 is correct.** The major functions of District Central Cooperative Banks (DCCBs):

- 1) To meet the credit requirements of member societies;
- 2) To perform banking business;
- 3) To act as balancing centres for the PACS by diverting the surplus funds of some societies to those which face shortage of funds;
- 4) To guide and supervise the PACS; and
- 5) To undertake non-credit activities.

**Q.64) What does the term 'Green shoots' represent in an Economy?**

- (a) Signs of growth of agriculture sector in a growing economy
- (b) Signs of economic recovery during an economy downturn
- (c) Signs of growth of agriculture sector in a declining economy
- (d) Signs of economic decline in a developed Economy.

**Ans (b)** Green shoots is the first signs of an improvement in an economy that is performing badly. It was first used in this sense by **Norman Lamont, the then Chancellor of the Exchequer of the United Kingdom, during the 1991 recession.**

**Q.65) Consider the following statements in regard to inclusive development:**

(1) Inclusive developments refer to the social inclusion of the socially excluded sections of the society.

(2) Creating productive and gainful employment opportunities.

**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

**Ans (c)** Inclusive growth is a concept which includes **equitable allocation to every section of society.** It creates an environment of equality in opportunity in all dimensions such as **employment creation, market, consumption, and production** and has created a platform for people who are poor to access a good standard of living

**Q.66) Consider the following statements in regard to Hedge funds:**

- (1) Hedge funds are open to all types of investors.
- (2) Hedge funds are immune to risk of the market and always produce positive returns.
- (3) Investments in hedge funds are illiquid as they often require investors keep their money in the fund for at least one year.

**Which of the statements given above is/are correct?**

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

**Ans (d)** Hedge funds invest in a **diverse range of markets and use a wide variety of investment styles and financial instruments.** Hedge funds are open only to certain types of investors in a country specified by the regulator and cannot be offered or sold to the general public. Legally, hedge funds are most often set up as private investment partnerships that are open to a limited number of investors and require a very large initial minimum investment.

**Q.67) Consider the following statements in regard to money market in India:**

- (1) It is a market for short-term and long-term funds with maturity ranging from overnight to one year.

(2) It acts as an instrument of liquidity adjustment for the Central Bank.

**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

**Ans (b)** The money market consists of financial institutions and dealers in money or credit who wish to either borrow or lend. **Participants borrow and lend for short periods of time, typically up to thirteen months.** Money market trades in short-term financial instruments commonly called "paper."

**Q.68) Consider the following statements in regard to 'Inflation Index bonds'?**

- (1) Investment in these bonds is more risky as these bonds increase the inflation risk attached to the investment.
- (2) It is better financial instrument compared to gold to hedge the risk rising out of volatile economy.

**Which of the statements given above is/are correct?**

- (a) 1 only
- (b) Both 1 and 2
- (c) None
- (d) 2 only

**Ans (d)** Inflation-indexed bonds are bonds where the principal is indexed to inflation. They are thus designed to **cut out the inflation risk of an investment.** These bonds thus decrease the inflation risk attached to the investment. Moreover these bonds are a better hedge than gold in a volatile economy as gold does.

**Q.69) Consider the following statements with reference to the Impacts of green revolution in India:**

- 1. The use of technology and better inputs have created significant employment opportunities in the non-agricultural sectors.
- 2. It increased cropping intensity 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

**Ans (c)**

The term 'Green Revolution' refers to the new agricultural technology developed during the **1950s and 1960s by a team of agricultural experts at the International Centre for Maize and Wheat Improvement in Mexico and at the International Rice Research Institute (IRRI) in Philippines.**

**Statement 1 is correct:** Green Revolution technology in terms of 'seeds-fertilizer-irrigation' package had substantial positive impact on employment generation in agriculture but increased use of farm machines such as tractors contributed to a reduction in the employment generated. The use of technology and better inputs have created significant employment opportunities in the non-agricultural sectors of manufacturing as well as service sectors. Further, expansion of irrigation (which was considered a precondition for the adoption of GR techniques) has generated more employment as irrigated crops have more agricultural operations as compared to the un-irrigated ones.

**Statement 2 is correct: One of the key features of HYV seeds is that they had shorter period of maturity which gave opportunity to farmers to grow a greater number of crops in a year.** Thus, the GR technology helped increase cropping intensity. Higher level of productivity and cropping intensity under the GR technology made it a land-saving technology

**Q.70) Consider the following statements:**

- 1. The Governor of the Reserve Bank of India (RBI) is appointed by the Central Government
- 2. Certain Provisions in the Constitution of India give the Central Government the right to Issue directions to the RBI in public interest.
- 3. The Governor of the RBI draws his power from the RBI Act.

**Which of the above statements are correct?**

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

**Ans (c)**

**Statement 1 is correct.** Section 8(1)(a) of the Reserve Bank of India Act, 1934, provides that there shall be **one Governor and not more than**

**four Deputy Governors to be appointed by the central government on the central board of RBI.**

**Statement 2 is incorrect.** Section 7 of the RBI Act provides that Central Government may from time to time give such directions to the Bank as it may, after consultation with the Governor of the Bank, consider necessary in the public interest. Constitution of India does not provide any provision for Central Government the right to issue directions to the RBI in Public interest.

**Statement 3 is correct.** According to RBI Act, the Governor shall have powers of general superintendence and direction of the affairs and the business of the RBI. He/she may exercise all powers and do all acts and things which may be exercised or done by the RBI.

**Q.71) With respect to the SDG India Index, consider the following statements:**

1. It is released annually by United Nations Department of Economic and Social Affairs.

2. It covers performance on 16 out of the total 17 SDG Goals.

3. No Indian state is in the 'Achiever' category yet

**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

**Ans (b)** is the correct answer.

The Sustainable Development Goals (SDG) India Index evaluates **progress of states and Union Territories (UTs) of India, on various parameters including health, education, gender, economic growth, institutions, climate change and environment.** It has become the primary tool for monitoring progress on the SDGs in India.

**Statement 1 is incorrect:** SDG India Index is released annually by NITI Aayog. **It is specific to India.** This is different from the SDG Report that is published by the UN Department of Economic & Social Affairs, which is global in scope.

**Statement 2 is correct: The first edition covered only 13 of the 17 SDG Goals, due to lack of standardised data.** The latest edition covered 16 of the SDG Goals in its performance evaluation. This is still one short of the complete set of SDG Goals (a total of 17 in number).

**Statement 3 is correct: There are 4 categories in the Index,** in accordance with the total score

1) Aspirant: 0 to 49

2) Performer: 50 to 64

3) Front-Runner: 65 to 99

4) Achiever: 100

**Q.72) Which of the following statements is/are correct regarding the Planning Commission and NITI Aayog?**

(a) Unlike Planning Commission, NITI Aayog has the power to allocate funds to the State Governments.

(b) Both are set up by a Resolution of the Government of India.

(c) Both bodies do not have any provisions for the appointment of part-time members.

(d) Both Planning Commission and NITI Aayog had power to impose policies on states, approved by it.

**Ans (b)**

**Statement a is incorrect.** The Planning Commission had the power to **allocate funds to the State Governments and various Central Government Ministries for various programmes and projects at National and State Levels.** The powers for allocation of funds have not been given to the NITI Aayog. The powers are with the Finance Ministry.

**Statement b is correct.** Both are Executive Body. The Planning Commission was set up by a Resolution of the Government of India in March 1950. **The NITI Aayog was set up by a Cabinet Resolution of the Government of India in January 2015.**

**Statement c is incorrect.** There are **part-time members appointed in NITI Aayog based on the requirements.** The Planning Commission did not have any provisions for the appointment of part-time members.

**Statement d is incorrect.** NITI Aayog has not been given the mandate or powers to impose policies on States. NITI Aayog is basically a think-tank or an advisory body.

The Planning Commission had the power to impose policies on States and for the projects approved by the Planning Commission.

**Q.73) Which one of the following is the reason for the phenomenon of jobless growth witnessed in India?**

1. Jump from primary to tertiary sector in sectoral reallocation of economic activity.
2. Growth in capital intensive sectors rather than labour intensive sectors.
3. Lack of focus on higher education.
4. Medium-type industries which produce high output are missing

Select the correct answer using the code given below:

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

**Ans (c)**

**Option 1 is correct:** In most developed economies, with growth, there was a shift in the dominant sector according to volume of economic activity, from primary (agriculture) to secondary (manufacturing) to finally tertiary (services). **A well developed and stabilised manufacturing sector was key in providing mass employment in most economies.** In India, however, after liberalization following reforms of '91, the sectoral reallocation of the economy jumped manufacturing and went straight to the tertiary sector.

**Services contribute the most value added to the economy,** but the major source of employment is still agriculture. Therefore a lot of people who lost jobs due to the decreasing share of agriculture in economic growth, were not absorbed by the manufacturing or service sector, causing economic growth but marginal or negative growth in employment.

**Option 2 is correct:** In both manufacturing and service sectors, growth was led by ventures that were **capital intensive (automotive manufacturing, oil refining, telecom, software, ITES, etc) and not labour intensive (food processing, textiles, apparel, leather, etc).** So while the value added and economic activity increased, very few people were employed in the process causing jobless growth.

**Option 3 is incorrect:** Too much focus on higher education that too limited in number in relation to the population is one of the reasons for jobless growth. **Quality Mass education could not be ensured. This resulted in a workforce that did not have the basic skills required to be employed in manufacturing sectors, thus contributing to poor employment scenarios.**

**Option 4 is correct:** The manufacturing sector is dominated by capital-intensive industries, and

the remaining ones are mostly informal and unorganized with **low productivity, low output, and low investment.** The medium-type industries which employ masses and produce high output are missing in Indian economy, contributing to jobless growth.

**Q.74) Consider the following statements regarding National E-Governance Services Ltd (NeSL).**

1. NeSL is India's first Information Utility that has been set up by leading banks and public institutions.
2. It is incorporated as a union government company.
3. It is registered with the Insolvency and Bankruptcy Board of India (IBBI) under the aegis of the Insolvency and Bankruptcy Code, 2016 (IBC).
4. NeSL works towards time-bound resolution by providing verified information to creditors and to Adjudicating Authorities that do not require further authentication.

**Which of the above statements is/are correct?**

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

**Ans (d)** NeSL is India's first Information Utility and is registered with the **Insolvency and Bankruptcy Board of India (IBBI) under the aegis of the Insolvency and Bankruptcy Code, 2016 (IBC).** The company has been set up by leading banks and public institutions and is incorporated as a union government company. The primary role of NeSL is to **serve as a repository of legal evidence holding the information pertaining to any debt/claim, as submitted by the financial or operational creditor** and verified and authenticated by the parties to the debt.

**NeSL works towards:**

- Time-bound resolution by providing verified information to creditors and to Adjudicating Authorities that do not require further authentication.
- Default intimation to Creditors linked to a debtor when any creditor files a default against a debtor
- Mitigation of information asymmetry between parties to a debt
- Superior credit monitoring by creditors
- An agreed statement of outstanding balance between parties to a debt



- Facilitate all stakeholders of the IBC ecosystem by leveraging Information Technology to achieve objective of code

**Q.75) Which of the following committees are related to RBI surplus transfers?**

- Bimal Jalan committee
- Bibek Debroy committee
- Malegam committee

**Select the correct answer code:**

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

**Ans (b)** Earlier, RBI used to keep a major chunk of this surplus for its Contingency Fund and Asset Development Fund. However, after the Malegam Committee (2013) recommendations its transfer of surplus to government increased. Later, the **Bimal Jalan committee provided a revised Economic Capital Framework or ECF.** ECF provides a methodology for determining the appropriate level of risk provisions and profit distribution to be made under Section 47 of the RBI Act, 1934.

**Q.76) e-GramSwaraj Portal has been launched by**

- (a) Ministry of Rural Development  
(b) Ministry of Information and Broadcasting  
(c) Ministry of Panchayati Raj  
(d) Niti Ayog

**Ans (c)** e-GramSwaraj Portal and Mobile App:

Launched by the **Ministry of Panchayati Raj.** It will provide the Gram Panchayats with a single interface to prepare and implement their Gram Panchayat Development Plan (GPDP). The portal will ensure real time monitoring and accountability

**Q.77) Consider the following statements regarding Infrastructure investment trusts (InvITs).**

1. Infrastructure investment trusts (InvITs) are institutions similar to mutual funds, which pool investments from various categories of investors

and invest them into completed and revenue-generating infrastructure projects.

2. NHA InvIT is sponsored by the National Highways Authority of India (NHA) to support the government's National Monetisation Pipeline (NMP).

3. Infrastructure investment trusts (InvITs) are regulated by RBI.

**Which of the above statements is/are correct?**

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

**Ans (b)** Infrastructure investment trusts are institutions similar to mutual funds, which pool investments from various categories of investors and invest them into completed and revenue-generating infrastructure projects, thereby creating returns for the investor.

The **capital market regulator notified the SEBI (Infrastructure Investment Trusts) Regulations, 2014 on September 26, 2014,** and these trusts are likely to help facilitate investment in the infrastructure sector.

Structured like mutual funds, they have a trustee, sponsor(s), investment manager and project manager. While the trustee (certified by Sebi) has the responsibility of inspecting the performance of an InvIT, sponsor(s) are promoters of the company that set up the InvIT. In the case of Public-private partnership (PPP) projects, it refers to the infrastructure developer or a special purpose vehicle holding the concession.

NHA InvIT is the infrastructure investment trust sponsored by the **National Highways Authority of India (NHA) to support the government's National Monetisation Pipeline (NMP).** NHA's InvIT is a Trust established by NHA under the Indian Trusts Act, 1882 and SEBI (Security and Exchange Board of India) regulations.

**Q.78) Consider the following statements.**

- The Reserve Bank of India Act, 1934, gives RBI the sole right to issue banknotes in India.
- Any change in design of a currency note has to be approved by the RBI's Central Board and the central government
- The RBI's Department of Currency Management headed by the RBI Governor has the

responsibility of administering the core function of currency management.

**Which of the above statements is/are correct?**

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

**Ans (a)** Changes in the design and form of bank notes and coins are decided by the Reserve Bank of India (RBI) and the central government. **Any change in design of a currency note has to be approved by the RBI's Central Board and the central government.** Changes in the design of coins are the prerogative of the central government.

**Section 22 of The Reserve Bank of India Act, 1934, gives RBI the "sole right" to issue banknotes in India.** Section 25 states that "the design, form, and material of bank notes shall be such as may be approved by the Central Government after consideration of the recommendations made by the [RBI's] Central Board".

The RBI's Department of Currency Management — currently headed by **Deputy Governor T Rabi Sankar** — **has the responsibility of administering the core function of currency management.** According to the RBI website, the Department addresses policy and operational issues relating to the "designing of banknotes; forecasting demand for notes and coins; ensuring smooth distribution of banknotes and coins throughout the country and retrieval of unfit notes and uncurrent coins from circulation; ensuring the integrity of bank notes", etc.

**Q.79) Which of the following are the features of 'capitalist economy'?**

1. It supports the policy of Laissez faire.
  2. It dissolves the institution of inheritance.
  3. Demand and supply of commodities determines the prices in the market.
  4. Sale and purchase of labour services at wage rate.
  5. Regulated by government licensing policy,
- Select the correct answer using the code given below.**

- (a) 1, 2, 4 and 5 only
- (b) 1, 3 and 4 only
- (c) 2, 3 and 5 only
- (d) 1 and 4 only

**Ans (b)**

The capitalist or free enterprise economy is the oldest form of economy advocated by minimum government intervention in economic activities. **Statement 1 is correct.** Laissez-faire economics is defined as a situation with minimal government intervention. **Under laissez-faire, governments, and regulators 'leave alone' private firms to allow them to make decisions about production and output.** Hence, capitalist economy characterized by feature private ownership supports the policy of Laissez faire.

**Statement 2 is incorrect.** The socialist or centrally planned economies are the one in which all the productive resources are owned and controlled by the government in the overall interest of the society. **It abolishes the institutions of private property and inheritance which are at the root of inequalities of income and wealth in a capitalist economy.**

**Statement 3 is correct.** One of the major features of a Capitalist economy is the **efficient functioning of the price mechanism.** In a market economy every commodity has a price. The forces of demand and supply in an industry determine this price. **Firms which are able to adjust at a given price earn normal profit and those who fail to do so often quit the industry.** **Statement 4 is correct.** In a capitalist economy, there is sale and purchase of labour services at a price which is called the wage rate for efficient operation of industries.

**Statement 5 is incorrect.** A mixed economy **combines the best features of capitalism and socialism.** In this, the private sector consists of production units that are owned privately and work based on profit motive while the Government uses its various policies e.g. Licensing policy, taxation policy, price policy, monetary policy, and fiscal policy to control and regulate the private sector.

**Q.80) It shows the relationship between economic growth and inequality. It is inverted U shaped meaning that as initially economic growth leads to greater inequality, followed later by the reduction of inequality. The situation given above can be best described using which one of the following curves?**

- (a) Laffer Curve
- (b) Phillips Curve
- (c) Engel Curve

(d) Kuznets Curve

**Ans (d)**

Option a is incorrect. **The Laffer Curve is a theory that states lower tax rates boost economic growth and high tax revenue.** If taxes are too high along the Laffer Curve, then they will discourage the taxed activities, such as work and investment, enough to actually reduce total tax revenue. In this case, cutting tax rates will both stimulate economy and increase tax revenue.

**Q.81) Which of the following are the limitations of using GDP as a measure of welfare?**

1. The increase in the level of GDP may not increase the welfare level in the society.
2. It focuses more on the total estimate of income distribution of individuals in an economy.
3. It undervalues all the non-monetary transactions within an economy.
4. It does not take into consideration the impact of negative and positive externalities in an economy.

**Select the correct answer using the code given below.**

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

**Ans (d)**

**Statement 2 is incorrect.** GDP does not tell anything about the actual distribution or distribution of income. To that extent, GDP estimates may not be extremely useful, especially if there is a highly skewed income distribution favouring the rich in an economy. Hence GDP is not a suitable indicator to economic welfare of a nation completely.

**Q.82) Consider the following statements:**

Other things remaining unchanged market demand for a good might increase if:

1. Price of its substitute increases
2. Price of its complement increases
3. The good is an inferior good and income of the consumers increases
4. Its price falls

**Which of the above statements are correct?**

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

(d) 1, 2 and 3 only

**Ans (a)** Option a is correct.

**The main factors that can increase the demand for a good in market are:**

- 1) Prices of related goods (substitute goods)
- 2) Income
- 3) Expectations
- 4) Number of buyers
- 5) Preferences

**The following are the relations between the demand and price of the products with other factors remaining unchanged:**

- 1) The demand for a good may increase, if the price of one of its substitutes rises. The demand for a good may decrease, if the price of one of its substitutes falls.
- 2) The demand for a good may increase, if the price of one of its complement's falls. For example, ice cream and fudge sauce.
- 3) The demand for an inferior good may decrease if income increases. The demand for a normal good may increase if income increases.
- 4) If the Price of the good falls, then its demand increases.

**Q.83) Consider the following statements with reference to money supply:**

1. An increase in the supply of money typically increases market interest rates.
2. The stock of money in money supply refers to the stock of money held by the public.
3. M0 or Reserve money is the most liquid fund.

**Which of the above statements is/are correct?**

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

**Ans (b)**

**Statement 1 is incorrect.** An increase in the supply of money typically lowers market interest rates, which in turn, generates more investment and puts more money in the hands of consumers, thereby stimulating spending.

**Statement 2 is correct.** The stock of money always refers to the stock of money held by the public. This is always smaller than the total stock of money in existence.

**Statement 3 is correct.** The monetary base is a component of a nation's money supply. It refers strictly to **highly liquid funds including notes, coinage, and current bank deposits.** M0 or reserve money=Currency in circulation +

Bankers deposits with RBI + Other deposits with RBI.

**Q.84) Which of the following are known as 'Non debt creating capital receipts' in an annual budget?**

1. Recoveries of loans
  2. Disinvestment proceeds
  3. Loans received from foreign governments
- Select the correct answer using the code given below:

- (a) 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. All of the above

**Ans:- Option a is correct**

**Option 1 and 2 are correct.** Capital receipts consist of capital receipts and non-debt capital receipts.

**Non-debt capital receipts, also known as NDCR, account for just 3% of the central government's total receipts.**

**Non debt capital receipts (NDCR) of the union government include:**

- 1) Recoveries of loans and advances given to state governments, Union territories and foreign governments
- 2) Disinvestment proceeds
- 3) Money accrued to the Union government from listing of central government companies and issue of bonus shares.

**Q.85) With respect to Indian Economy, consider the following statements:**

1. Floor price is basically a market determined lower limit on the price that may be charged for a particular good or service.
2. Price ceiling is generally imposed by the government on necessary items and is below the market-determined price of that product.

Which of the statement given above is/are correct?

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

**Ans (b) Statement 1 is incorrect:** For certain goods and services, fall in price below a particular level is not desirable and hence the government sets floors or minimum prices for these goods and services. The government-

imposed lower limit on the price that may be charged for a particular good or service is called price floor. **Most well-known examples of imposition of price floor are agricultural price support programmes and the minimum wage legislation.**

**Statement 2 is correct: The government-imposed upper limit on the price of a good or service is called price ceiling.** Price ceiling is generally imposed on necessary items like **wheat, rice, kerosene, sugar** and it is fixed below the market-determined price since at the market-determined price some section of the population will not be able to afford these goods.

**Q.86) What do you understand by the term "paradox of thrift"?**

- (a) It indicates personal savings can be detrimental to overall economic growth during recession.
- (b) It indicates goods that are not essential to life can command a much higher price than goods that are essential to life.
- (c) It indicates that societies with abundant natural resources have worse economic outcomes than those that lack natural resources.
- (d) It refers to the possibility that standard competitive demand, with nominal wealth held constant, can be upward sloping, violating the law of demand.

**Ans (a)**

**Paradox of thrift was popularized by the renowned economist John Maynard Keynes.**

The paradox of thrift, or paradox of savings, is an economic theory that posits that personal savings are a net drag on the economy during a recession.

It states that **individuals try to save more during an economic recession, which essentially leads to a fall in aggregate demand and hence in economic growth.** Such a situation is harmful for everybody as investments give lower returns than normal.

In other words, when everyone increases their **saving-income proportion, MPS, then aggregate demand falls as consumption reduces.** This leads to a decrease in the level of employment and income, and reduces total savings in the economy.

It is based on a **circular flow of the economy** in which current spending drives future spending.

Option b is incorrect. Also known as the diamond-water paradox, the paradox of value describes the vast difference seen in the prices of certain essential goods and non-essential goods. Many goods and services that are essential to human life have a much lower price in a market economy than other goods and services that are not so essential.

Option c is incorrect. The “paradox of plenty” refers to the observation that many societies with abundant natural resources have worse economic outcomes than those that lack natural resources.

Typically, this paradox is attributed to abundant resources crowding out activities that improve economic outcomes.

**Option d is incorrect.** Giffen's paradox refers to the possibility that standard competitive demand, with nominal wealth held constant, can be upward sloping, violating the law of demand.

**Q.87) With reference to the fiscal management in India, consider the following statements:**

1. The Central government aims to limit the fiscal deficit to 4.5% of GDP by 2025-26.
2. The annual fiscal deficit target can be exceeded by 5% under the escape clause of the Fiscal Responsibility and Budget Management Act.

**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

**Ans (a)**

**Statement 1 is correct.** The government aims to steadily reduce fiscal deficit to 4.5% of GDP by 2025-26.

**Statement 2 is incorrect.** The ‘Escape clause’ under the act allows the Centre to breach its fiscal deficit target by 0.5 percentage points in exceptional circumstances. These exceptional circumstances include:

- a) National security
- b) war
- c) National calamity
- d) Collapse of agriculture
- e) Structural reforms
- f) and f)

Decline in real output growth of a quarter by at least three percentage points below the average of the previous four quarters.

**Q.88) The national income of a country for a given period is equal to the**

- (a) The sum total of the value of all the goods and services manufactured by the residents of the country, in a year
- (b) Sum of total consumption and investment expenditure
- (c) Sum of personal income of all individuals
- (d) Money value of final goods and services produced within domestic boundary

**Ans (a)** National income is the sum total of the value of all the goods and services manufactured by the residents of the country, in a year within its domestic boundaries or outside. It is the net amount of income of the citizens by production in a year.

**Q.89) Consider the following statements:**

1. To facilitate interaction with fishermen, coastal communities, etc. Sagar Parikrama Phase-III has been launched.
2. Gujarat is the leading state in marine fish production in India
3. Other schemes for the upliftment of the fisheries sector include Pradhan Mantri Matsya Sampada Yojana, Palk Bay Scheme, Kisan Credit Card

**Which of the above statements is/are correct?**

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

**Ans (d)** India is the second major producer of fish through aquaculture in the world and also the 4th largest exporter of fish in the world. The exports from India contribute 7.7% to global fish production.

**Gujarat is the leading state in marine fish production, sharing 16.67 per cent of the country's total marine fish production.**

Various schemes initiated by the government for the upliftment of the fisheries sector include Pradhan Mantri Matsya Sampada Yojana, Palk Bay Scheme, Marine Fisheries Bill, Fisheries and Aquaculture Infrastructure Development Fund (FIDF), the fishing harbour, seaweed park, Kisan

Credit Card (KCC) and Marine Products Export Development Authority

**Q.90) With reference to the Flexible Inflation Targeting (FIT) framework, consider the following statements:**

1. It is provided by the Reserve Bank of India (RBI) Act.
2. It is set by the Central Government on the basis of the Consumer Price Index.
3. RBI is required to maintain retail inflation at 4 percent with an upper and lower margin of 2%.

**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)**

Explanation:

- Inflation targeting is a **central banking policy that revolves around adjusting monetary policy** to achieve a specified annual rate of inflation. It is based on the belief that long-term economic growth is best achieved by maintaining price stability, and price stability is achieved by controlling inflation.
- The 2016 Amendment to the Reserve Bank of India Act, 1934 provided for a Flexible Inflation-Targeting framework in India. Under the new statutory framework, the Central Government would, in consultation with the Reserve Bank of India (RBI), set an inflation target based on the Consumer Price Index (CPI) once every five years. So, statements 1 and 2 are correct.
- The Central Government, under the RBI Act, 1934 (Amended of 2016) has fixed the CPI inflation target at 4% with an **“upper tolerance limit” of 6% and the lower tolerance limit of 2 percent. So, statement 3 is correct. Therefore, option (d) is the correct answer**

**Q.91) Which of the following are the objectives of the Regional Rural Banks (RRBs)?**

1. Inspection of State Cooperative Banks and District Central Cooperative Banks
2. Bridging the credit gap in rural areas
3. Check the outflow of rural deposits to urban areas
4. Reduce regional imbalances and increase rural employment generation

**Select the correct answer using the code given below:**

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

**Ans (b).**

Following are the major objectives of RRBs: Identify the financial need especially in rural areas and bridging the credit gap in rural areas. So, point 2 is correct.

- To cater to the needs of the backward areas which are not covered by the other efforts of the Government.
- Check the outflow of rural deposits to urban areas. So, point 3 is correct.
- To develop underdeveloped regions and thereby strive to remove economic disparity between regions.
- To increase employment opportunities by encouraging trade and commerce in rural areas.
- To enhance banking and financing facilities in backward or unbanked areas
- To reduce regional imbalances and increase rural employment generation. So, point 4 is correct.

**National Bank for Agriculture and Rural Development (NABARD) has the responsibility of statutory inspection of Regional Rural Banks (RRBs), State Cooperative Banks and District Central Cooperative Banks (DCCBs), a /voluntary inspection of State Cooperative Agriculture and Rural Development Banks (SCARDBs) and their off-site surveillance. So, point 1 is not correct.**

**Q.92) With reference to the Securities and Exchange Board of India (SEBI), consider the following statements:**

1. It is both a quasi-legislative and quasi-judicial body.
  2. It can regulate any investment pool of funds with a corpus of Rs 100 crore or more.
  3. It can order penalties for criminal offences committed under the SEBI Act, 1992.
- Which of the statements given above is/are correct?**
- (a) 1 and 2 only
  - (b) 2 only
  - (c) 1 and 3 only
  - (d) 1, 2 and 3

**Answer: a**

Explanation:

- The Securities and Exchange Board of India (SEBI) is a statutory body **established on April 12, 1992 in accordance with the provisions of the Securities and Exchange Board of India Act, 1992**. SEBI is both a **quasi-legislative and quasi-judicial body**. It can draft regulations, conduct inquiries, pass rulings and impose penalties. So, statement 1 is correct.
- It has powers to regulate any pooling of funds under an investment contract involving a corpus of Rs.100 Crore or more and attach assets in case of non-compliance. So, statement 2 is correct.
- **SEBI's powers are equivalent to that of a civil court**. It passes penalty orders against entities that commit market offences. However, if the regulator wants to initiate criminal prosecution against any such market offender, it has to go through the regular courts. So, statement 3 is not correct.

**Q.93) Consider the following statements with reference to Credit Guarantee Scheme for Startups (CGSS):**

1. It provides collateral-free debt funding to startups.
2. Non-Banking Finance Companies (NBFCs) and Alternative Investment Funds (AIFs) cannot extend credit assistance under the scheme.

**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**

Explanation:

- The Central Government has recently approved the 'Credit Guarantee Scheme for Startups (CGSS). **The scheme aims at providing credit guarantees up to a specified limit against loans extended by member institutions (MIs) to finance eligible borrowers being startups**. This scheme would help provide the needed collateral-free debt funding to startups. So, statement 1 is correct.
- MIs include financial intermediaries like scheduled commercial banks, financial

institutions, Non-Banking Finance Companies (NBFCs) and Alternative Investment Funds (AIFs) engaged in lending/investing and conforming to the eligibility criteria approved under the Scheme. So, statement 2 is not correct.

- The credit guarantee cover under the scheme would be transaction-based and umbrella based. The exposure to individual cases would be capped at Rs. 10 crore per case or the actual outstanding credit amount, whichever is less.

**Q.94) The FRBM Act contain an 'escape clause' under which Centre can exceed the annual fiscal deficit target on which of the following grounds?**

1. Collapse of agriculture
2. National calamity
3. National security
4. Decline in real output growth of a quarter by at least three percentage points below the average of the previous four quarters.

**Select the correct answer code:**

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

**Ans (c)**

The law does contain what is commonly referred to as an 'escape clause'. Under **Section 4(2) of the Act, the Centre can exceed the annual fiscal deficit target citing grounds that include national security, war, national calamity, collapse of agriculture, structural reforms and decline in real output growth** of a quarter by at least three percentage points below the average of the previous four quarters.

**Q.95) Zombie firms, sometimes seen in news implies**

- (a) Firms supported by the government without taxing on its profits
- (b) Firms with create more employment opportunities
- (c) Firms which are not able to cover their debt-servicing costs with current earnings.
- (d) Firms which earn sufficient profit to finance their debts

**Ans (c)**

Zombies are typically identified using the **interest coverage ratio, the ratio of a firm's**

**profit after tax to its total interest expense.**

Firms with an interest coverage ratio lower than one are unable to meet their interest obligations from their income and are categorized as zombies.

**Q.96) Consider the following statements regarding Ever-greening of Loans.**

1. Ever-greening loans is lending a new loan to a borrower on the verge of default, near the repayment date of an existing loan, to facilitate its repayment.
2. Banks are required to disclose them like they disclose the restructurings of loans.

**Which of the above statements is/are correct?**

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

**Ans (a)**

Ever-greening loans is lending a new loan to a borrower on the verge of default, near the repayment date of an existing loan, to facilitate its repayment. Such transactions go undetected as banks are not required to disclose them, unlike restructurings that warrant disclosures.

**Q.97) Consider the following statements regarding Participatory Notes commonly known as P-Notes.**

1. These are financial instruments used by overseas investors that are not registered with the SEBI to invest in Indian securities.
2. They are known as offshore derivative instruments.
3. The investors enjoy the voting rights in relation to shares invested through the P - Notes.

**Which of the above statements is/are correct?**

- (a) 1, 2
- (b) 1, 3
- (c) 2, 3

- (d) 1, 2, 3

**Ans (a)**

Participatory Notes, also called P-Notes or just PNs are instruments that are issued by registered FIIs to overseas investors who want to invest in the stock markets in India, without registering themselves with the market regulatory authority SEBI. PNs are not used within India but by investors abroad. Hence, they are also known as offshore derivative instruments.

**The P-Note holder also does not enjoy any voting rights in relation to security/shares referenced by the P-Note.**

**Q.98) Consider the following statements regarding zero-coupon bond.**

1. Zero Coupon Bonds are issued at a discount and redeemed at par.
2. No interest payment is made on such bonds at periodic intervals.
3. These are special types of bonds issued only by the Central government specifically to a particular institution.

**Which of the above statements is/are correct?**

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

**Ans (b)**

A zero-coupon bond is a **debt security that does not pay interest but instead trades at a deep discount, rendering a profit at maturity**, when the bond is redeemed for its full-face value.

It does not make **periodic interest payments or have so-called coupons, hence the term zero coupon bond**. When the bond reaches maturity, its investor receives its par (or face) value. **Zero coupon bonds by private companies are normally issued at discount.**