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Varthaman

MONTHLY CURRENT AFFAIRS MAGAZINE
BY RV TRAINING ACADEMY

PUSA-44

Recently, Punjab Chief Minister announced that the state will ban the cultivation of the PUSA-44 paddy variety from next year onwards. It is a paddy variety which was developed in 1993 by the Indian Council of Agricultural Research (ICAR).

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- + GLACIAL LAKE OUTBURST FLOOD
 - + BEST EVER PERFORMANCE AT ASIAN GAMES IN THE LAST 60 YEARS
 - + COUNTING RURAL WOMEN'S LABOUR
 - + 2023 NOBEL PRIZE FOR PEACE

CURRENT AFFAIRS
& PRACTICE QUESTIONS

ADMISSIONS OPEN

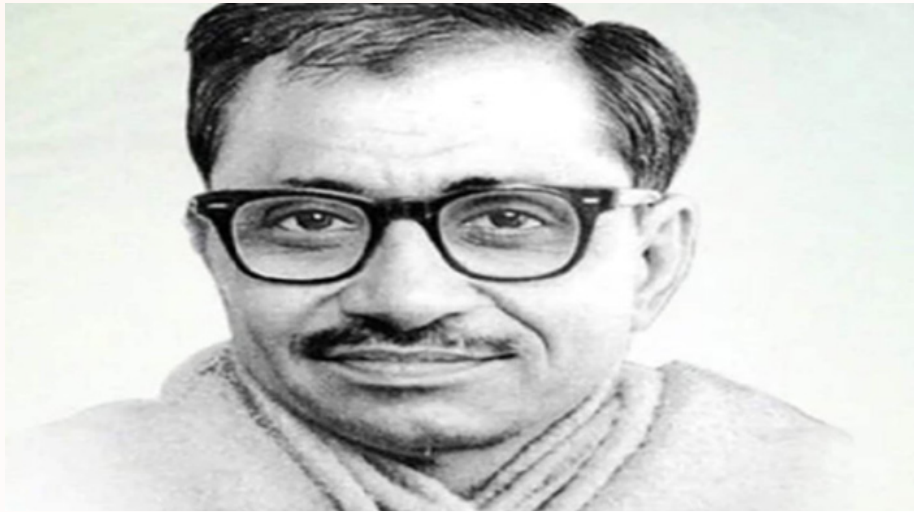
**NEW BATCH STARTS
NOVEMBER 2023**

COURSE HIGHLIGHTS

- **BASIC NCERT FOUNDATION**
- **PRELIMS CLASSES**
- **WEEKLY CURRENT AFFAIRS**
- **MAINS UPGRADATION**
- **ANSWER WRITING PRACTICE**
- **PERSONALISED MENTORING**
- **STUDY MATERIALS**

RV TRAINING ACADEMY

Eminent Personality



Pandit Deendayal Upadhyay

PM pays tributes to Pandit Deendayal Upadhyay at Dhanakya in Jaipur on account of his birth anniversary.

The Prime Minister paid tributes to Pandit Deendayal Upadhyay at Deendayal Upadhyay National Memorial at Dhanakya in Jaipur. The Prime Minister said "Our government is committed to making life easier for the poorest of the poor in the country by following the principle of Antyodaya."

Pandit Deendayal Upadhyaya was born on September 25, 1916, in the sacred region of Brij in the village of Nagla Chandrabhan in Mathura District. His father was a well-known astrologer. An astrologer who studied his horoscope predicted that the boy would become a great scholar and thinker, a selfless worker, and a leading politician - but that he would not marry. While at Bhatpur tragedy struck the family, he lost his brother to illness in 1934. He later went to high school in Sikar. The Maharaja of Sikar gave Pandit Upadhyaya a gold medal, Rs. 250 for books and a monthly scholarship of Rs.10.

Pandit Upadhyaya passed his Intermediate exams with distinction in Pilani and left for Kanpur to pursue his B.A. and joined the Sanatan Dharma College. At the instance of his friend Shri. Balwant Mahashabde, he joined the RSS in 1937. In 1937 he received his B.A. in the first division. Pandit Upadhyaya moved to Agra to pursue M.A.

At the instance of his aunt, he took a Government conducted competitive examination in dhoti and kurta with a cap on his head, while other candidates wore western suits. The candidates in fun called him "Panditji" - an appellation

millions were to use with respect and love in later years. Again at this exam he topped the list of selectees. Armed with his uncle's permission he moved to Prayag to pursue B.T. and at Prayag he continued his RSS activities. After completion of his B.T., he worked full-time for the RSS and moved to Lakhimpur District in UP as an organizer and in 1955 became the Provincial Organizer of the RSS in UP.

He established the publishing house 'Rashtra Dharma Prakashan' in Lucknow and launched the monthly magazine 'Rashtra Dharma' to propound the principles he held sacred. Later he launched the weekly 'Panchjanya' and still later the daily 'Swadesh'. In 1950, Dr. Syama Prasad Mookerjee, then Minister at the Center, opposed the Nehru-Liaquat pact and resigned his Cabinet post and joined the opposition to build a common front of democratic forces. Dr. Mookerjee sought Shri. Guruji's help in organizing dedicated young men to pursue the work at the political level.

Pandit Deendayalji convened on September 21, 1951 a political convention of UP and founded the state unit of the new party, Bharatiya Jana Sangh. Pandit Deendayalji was the moving spirit and Dr. Mookerjee presided over the first all-India convention held on October 21, 1951.

Pandit Deendayalji's organizing skills were unmatched. Finally came the red letter day in the annals of the Jana Sangh when this utterly unassuming leader of the party was raised to the high position of President in the year 1968. On assuming this tremendous responsibility Deendayalji went to the South with the message of Jana Sangh. On the dark night of February 11, 1968, Deendayal Upadhyaya was pushed into the jaws of sudden death.

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Burning Issues

KHALISTAN MOVEMENT

- Canada and India's relation have hit rock bottom after Canadian PM Justin Trudeau accused the Indian government agency of killing Khalistani terrorist Hardeep Singh Nijjar.
- In India, the Sikh independence movement turned out to be a bloody armed insurgency that shook the country in the 1970s and 1980s. The movement centered in northern Punjab state, where Sikhs are the majority.
- The insurgency lasted more than a decade and was suppressed by the Indian government crackdown in which thousands were killed including Sikh militant leader Jarnail Singh Bhindranwale.
- In 1984, Indian forces stormed the Golden Temple in Amritsar to flush out separatists who had taken refuge there. On October 31, 1984, then-Indian PM Indira Gandhi was assassinated by two of her Sikh bodyguards. Her death triggered a series of anti-Sikh riots.

Is the Khalistan movement still going on?

- In Punjab, the Khalistan movement still has some supporters but there is no active insurgency in the state today. Over the years, the Indian government has repeatedly warned that Khalistani terrorists were trying to make a comeback.
- The government has also intensified the pursuit of Khalistani terrorists and arrested dozens of leaders from various outfits that are linked to the movement.

- During farmers' protests against the agriculture laws in 2020, the government initially tried to discredit Sikh participants by calling them 'Khalistanis'. Under pressure, the government later withdrew the laws.
- Earlier this year, the cops arrested a Sikh leader who had revived calls for Khalistan and stirred fears of violence in Punjab. Amritpal Singh, a 30-year-old preacher, had captured national attention through his fiery speeches. He said he drew inspiration from Bhindranwale.

Khalistan movement outside India

- Over the years, India has been asking countries like Australia, Canada, and the United Kingdom to take legal action against Khalistani terrorists. Personally, PM Modi raised the issue with these nations' prime ministers, particularly with Canada where Sikhs make up nearly 2% of the country's population.
- Sikh protestors have also pulled down the Indian flag at the country's high commission in London. They smashed the building's window in a show of anger against the move to arrest Amritpal Singh.
- India's foreign ministry denounced the incidents and summoned the UK's deputy high commissioner in New Delhi to protest what it called the breach of security at the embassy in London.
- The Indian government also accused Khalistan supporters in Canada of vandalizing Hindu temples with "anti-India" graffiti and of attacking the offices of the Indian High Commission in Ottawa during a protest in March 2023.

POLITY AND GOVERNANCE

WRIT JURISDICTION OF HIGH COURTS

- The Allahabad High Court recently refused to exercise its writ jurisdiction in a petition seeking compliance of a Supreme Court order.

About Writ Jurisdiction of High Courts:

- According to Articles 12-35 of the Indian Constitution, every citizen is given a number of Fundamental rights.
- Article 32 and Article 226 provide a remedy for the protection of fundamental rights by allowing the Supreme Court and the High Court's, respectively, to issue writs when a citizen's basic rights are violated.
- It allows the courts to issue formal orders to the authorities in cases of violations of fundamental rights by government authorities or government bodies.
- Article 226 empowers the High Courts to issue writs not only for the enforcement of fundamental rights but also for any other legal right. Thus, writ jurisdiction of the High Court is wider than that of Supreme Court (SC) because the SC can issue writs only for the enforcement of fundamental rights under Article 32.
- The remedy provided under Article 226 of the Constitution is a discretionary remedy of the court and thereby cannot be claimed as a matter of right.
- Thus, unlike the Supreme Court, which must issue writs when fundamental rights are violated (since the right to approach the SC in case of a violation of a Fundamental Right is in itself a Fundamental Right), the High Court has discretion when granting writs. Under Article 226, a writ petition can be filed before any High Court within whose jurisdiction the cause of action arises, either wholly or in part. It is immaterial if the authority against whom the writ petition is filed is within the territory or not. Types of writs mentioned in the Indian Constitution:

Habeas Corpus:

- 'Habeas Corpus' literally means "to have a body of".
- This writ is used to release a person who has been unlawfully detained or imprisoned.

By virtue of this writ, the Court directs the person so detained to be brought before it to examine the legality of his detention. If the Court concludes that the detention was unlawful, then it directs the person to be released immediately.

Mandamus:

- Mandamus' means 'we command'.
- It is issued by the Court to direct a public authority to perform the legal duties which it has not or refused to perform. It can be issued by the Court against a public official, public corporation, tribunal, inferior court or the government. It cannot be issued against a private individual or body, the President or Governors of States, or against a working Chief Justices.

Prohibition:

- It is issued by the High Court or the Supreme Court to the subordinate court or the tribunal to prevent them from exceeding their jurisdiction which hasn't been vested upon them under the law. It cannot be applied to statutory bodies, administrative agencies, or private individuals or businesses. Only judicial and quasi-judicial organisations are subject to it.

Certiorari:

- It is issued by the High Court or the Supreme Court to the judicial or quasi-judicial authorities when such authority passes the order without having jurisdiction in such case, exceeding the jurisdiction conferred upon it, or when it violates the principle of natural justice. It is issued against a lower court or tribunal in order to transfer the matter to another superior body for careful consideration.

Quo Warranto:

- It is issued by the court to inquire into the legality of the claim made by the person who is holding a public office. The ministerial office cannot be the target of it. This writ is used to determine who has the legal authority to hold a public office in the event of a disagreement.

SPECIAL AND LOCAL LAWS

- The recent criminal law Bills in India, while amending the Indian Penal Code and Code of Criminal Procedure, highlight the

paramount significance of Special and Local Laws (SLLs) containing critical offences and procedures.

Special and local laws

- Special and local laws in India are designed to cater to the unique needs of specific regions, communities, or situations within the country. These laws are localized and vary based on the cultural, social, and historical context of different regions and communities.
- These laws serve to supplement or modify the general laws applicable to the entire country. They provide additional provisions or amendments to address the specific requirements of diverse communities and regions, ensuring a more tailored and context-specific legal framework.

Some examples of special and local laws

Personal Laws

- India has separate personal laws for different religious communities such as Hindu Law, Muslim Law, Christian Law, and Parsi Law. These laws govern matters related to marriage, divorce, inheritance, and adoption within specific religious communities.

Tribal Laws

- Various states in India have special laws and regulations to protect the rights and interests of tribal communities. These laws are aimed at preserving their customs, traditions, and way of life.

State Laws

- Each state in India can have its own set of laws and regulations on various subjects such as land reforms, education, and local governance. These laws are specific to individual states and may differ from one state to another.

Special Economic Zones (SEZ) Laws

- SEZs in India are governed by specific laws that provide various incentives and benefits to promote exports and economic activities within these designated zones.

Taxation Laws

- entities. For example, certain states in India have state-level taxes in addition to national taxes.

Local Municipal Laws

- Municipal laws and regulations vary from one city or municipality to another. These laws govern local issues such as property tax, sanitation, and urban development.

Educational Laws

- Different states have their education laws governing matters related to schools, colleges, and universities.

Criminal Tribes Act

- Though significantly modified and reformed, certain states in India have laws that historically targeted specific communities, often referred to as denotified tribes. These laws are aimed at integrating these communities into mainstream society.
- Need to reform Special and Local Laws (SLLs)

Quantitative and Qualitative Relevance

- SLLs constitute a significant share, almost 40%, of all registered offences in India, underscoring their quantitative importance in the criminal justice system. They are a substantial part of the legal landscape, impacting the overall crime statistics.
- SLLs often deal with complex and contentious issues, giving rise to fundamental debates and discussions about individual rights and civil liberties. Their qualitative significance lies in their capacity to spark crucial dialogues surrounding justice and civil liberties in society.

SECTION 106 OF THE INDIAN EVIDENCE ACT

- The Supreme Court recently held that Section 106 of the Evidence Act does not inherently impose a burden on the accused but comes into play when the accused fails to provide any explanation regarding facts that should be within their knowledge.



About Section 106 of the Indian Evidence Act:

- Section 106 of the Indian Evidence Act, 1872, deals with the burden of proof in cases where a fact is within the special knowledge of a person.
- This section applies to civil and criminal cases alike and lays down an important principle of evidence.
- The section states that when any fact is especially within the knowledge of any person, the burden of proving that fact is upon that person.
- This means that if a fact is known to a particular person and not to others, it is the responsibility of that person to prove it in court.
- For example, in a case where the ownership of a property is disputed, and the disputed property was in the possession of the defendant, the burden of proving that he acquired the property lawfully and has the right to possess it will be on the defendant.
- Similarly, in a criminal case where the accused is alleged to have killed someone with a knife, the burden of proving that the accused used the knife to commit the crime will be on the prosecution.
- The burden of proof under Section 106 is not absolute, and the person who has the special knowledge of the fact is only required to prove it to the extent that is reasonable in the circumstances.
- The person is not required to prove the fact beyond all doubt, but only to the extent that a reasonable person would believe it to be true.

ETHICS COMMITTEE IN PARLIAMENT

- Recently, the Lok Sabha Speaker referred the complaint against a sitting member of parliament to the House Ethics Committee.

About Ethics Committee in Parliament:

- The genesis of formation of the Ethics Committee in Parliament can be traced to a resolution adopted at the Presiding Officers Conference held in New Delhi in October, 1996.
- Each house of the parliament has its own ethics committee.
- Ethics committee in Lok Sabha

- It was first constituted in 2000.

Composition:

- It consists of not more than fifteen members and nominated by the Speaker.
- Term:
 - They shall hold office for a term not exceeding one year.
- Ethics committee in Rajya Sabha
- It was constituted in 1997.

Composition:

- It consists of 10 members nominated by the Chairman of Rajya Sabha.
- Term: They shall hold office for a term not exceeding one year.

Functions

- To oversee the moral and ethical conduct of the Members; To examine the cases referred to it with reference to ethical and other misconduct of the Members. Any person or member may make a complaint relating to unethical conduct of a member to the committee. In the case of the Ethics Committee only an MP can be examined for misconduct.

22ND LAW COMMISSION SUBMITS REPORT

- "Age of Consent under the Protection of Children from Sexual Offences Act, 2012." The Law Commission received a reference from the Hon'ble High Court of Karnataka (Dharwad Bench), vide letter dated 9th November, 2022, asking the Commission to rethink on the age criteria for consent, taking into consideration the rising number of cases relating to minor girls above the age of 16 years falling in love, eloping and having sexual intercourse with the boy, there by attracting the provisions of the Protection of Children from Sexual Offences Act, 2012 ("POCSO Act") and/or the Indian Penal Code, 1860. The Commission is also in receipt of a reference from the Hon'ble High Court of Madhya Pradesh (Gwalior Bench), vide letter dated 19th April, 2023, wherein the Court has drawn the Commission's attention on how the enforcement of the POCSO Act, in its present form, causes gross injustice in cases of statutory rape where de facto consent

is present. The Court further requested the Commission to suggest amendment to the POCSO Act, vesting discretionary power in the Special Judge to not impose the statutory minimum sentence in cases where de facto consent is apparent on part of the girl child or where such a relationship has culminated in marriage, with or without children.

- After a careful review of existing child protection laws, various judgements and considering the maladies of child abuse, child trafficking and child prostitution that plague our society, the Commission is of the measured view that it is not advisable to tinker with the existing age of consent under the POCSO Act. However, having cautiously considered all the views and suggestions furnished in this regard, the Commission considers it necessary that certain amendments need to be brought in the POCSO Act to remedy the situation in cases wherein there is tacit approval in fact though not consent in law on part of the child aged between 16 to 18 years. This is so because in our considered opinion, such cases do not merit to be dealt with the same severity as the cases that were ideally imagined to fall under the POCSO Act. The Commission, therefore, deems it fit to introduce guided judicial discretion in the matter of sentencing in such cases. This will ensure that the law is balanced, thus safeguarding the best interests of the child. Accordingly, Report No. 283 titled "Age of Consent under the Protection of Children from Sexual Offences Act, 2012" was submitted to the Ministry of Law & Justice, Department of Legal Affairs

CURATIVE PETITION



- The Supreme Court's decision to hear the curative petitions filed by Vodafone Idea and Bharti Airtel regarding the calculation

of adjusted gross revenue (AGR) dues is a significant development in the ongoing legal battle between the Department of Telecommunications (DoT) and these telecom operators.

- In October 2019, the Supreme Court upheld the DoT's definition of AGR and directed all incumbent telecom operators to pay AGR dues, which amounted to a total of Rs 1.69 trillion calculated until FY17. The Supreme Court allowed these telcos to pay the dues in equal instalments spread over 10 years.
- Following the Supreme Court's initial verdict, telecom operators filed a review petition, arguing that there were calculation errors and discrepancies in the AGR dues assessed by the DoT. The court, however, dismissed their review petition in July 2021 and barred them from self-assessing their dues.
- Subsequently, Vodafone Idea and Bharti Airtel filed curative petitions, a legal remedy that can be pursued after a review petition has been dismissed. The curative petitions raised concerns about the arithmetical errors and differences in the calculation of their dues compared to the DoT's assessment.

What is a Curative Petition

- A curative petition is a legal remedy available to rectify a final judgment of the Supreme Court, which has been upheld even after a review petition.
- The purpose of a curative petition is to correct grave errors and prevent miscarriages of justice. However, it is essential to note that curative petitions are only entertained in exceptional circumstances.

Conditions for Filing a Curative Petition

- The petition must be filed within 30 days of the dismissal of the review petition.
- The petition must be signed by a senior advocate of the Supreme Court, emphasizing the seriousness and expertise involved in the process.
- The petition must clearly state specific grounds for review, such as a gross miscarriage of justice, violation of natural justice principles, discovery of new and important evidence, or fraud/suppression of material facts during the trial.
- The petition must be accompanied by a certificate from the senior advocate,

confirming that the petition has been filed in good faith and that there are reasonable grounds for review.

Review Process

- The curative petition is reviewed by a bench of five judges, including three of the most senior judges of the Supreme Court.
- If the bench decides to hear the petition, it considers arguments from both the petitioner and the respondent. Amicus curiae, an impartial adviser to assist the court, might be appointed to provide expert opinions and recommendations.
- After the hearing, the bench delivers its judgment. If the curative petition is allowed, it may set aside the original judgment and order a fresh hearing of the case. This is a rare occurrence and only happens in exceptional circumstances.

Grounds for Filing a Curative Petition

- **Gross Miscarriage of Justice:** This means there has been a significant error in the judgment that has led to a miscarriage of justice.
- **Violation of Natural Justice:** This pertains to the court's failure to follow fundamental principles of a fair trial, such as the right to be heard and the right to know the case against oneself.
- **Discovery of New Evidence:** If new evidence is discovered that could have a substantial impact on the case's outcome.
- **Fraud or Suppression of Material Facts:** If there was fraud or suppression of essential information during the trial.

Factors Considered by the Court

- **Seriousness of Allegations:** The gravity of the claims made in the petition is a crucial factor.
- **Nature of Error:** The type and extent of the error alleged in the court's previous judgment.
- **Potential Impact:** The likelihood that the error could have affected the case's outcome significantly.
- **Impact on the Justice System:** Considering how entertaining the petition might affect the broader administration of justice.

Examples of Curative Petitions

- **Rupa Ashok Hurra v/s Ashok Hurra:** In this case, a woman who had won the custody of her child in the lower courts was denied the same by the Supreme Court on technical grounds. She filed a curative petition, which was allowed by the court and she was given back the custody of her child.
- **Union of India v/s Union Carbide Corporation:** In this case, the Indian government filed a curative petition seeking more compensation for the victims of the Bhopal gas tragedy, which was one of the worst industrial disasters in history. The court dismissed the petition, but it issued directions for the proper distribution of the compensation that was already awarded by an earlier settlement.
- **Nirbhaya v/s State of NCT of Delhi:** In this case, the convicts in the brutal gang rape and murder of a young woman in Delhi filed a curative petition challenging their death sentences. The court rejected the petition, but it also laid down guidelines for the execution of death sentences in India.

GOVERNMENT BILLS AND SCHEMES

UMBRELLA SCHEME OF "SHREYAS" COMPRISING 4 CENTRAL SECTOR SUB- SCHEMES

- The umbrella scheme of "SHREYAS" which comprises 4 central sector sub- schemes namely "Top Class Education for SCs", "Free Coaching Scheme for SCs and OBCs", "National Overseas Scheme for SCs" and "National Fellowship for SCs". Since all these sub-schemes are central sector schemes, state-wise data is not maintained for these schemes. The brief of the sub-schemes under SHREYAS along with the allocated budget, expenditure details and number of beneficiaries for the last 9 years i.e. since 2014-15 is as under:
 - Free Coaching Scheme for SCs and OBCs
 - Top Class Education for SCs
 - National Overseas Scheme for SCs
 - National Fellowship for SC Students
- Digital India Act**



- The recent announcement of the Digital India Act 2023 (DIA) represents a significant step towards establishing a future ready legal framework for the country's burgeoning digital ecosystem.
- This move by the Ministry of Electronics and Information Technology (MEITY) signals a proactive approach to regulating and shaping the digital future of the nation.

Need for the Digital India Act 2023:

- The DIA will replace the two decade old Information Technology Act 2000 (IT Act).
- The IT Act was crafted during a time when the internet was in its infancy, and has struggled to keep pace with the rapid changes in technology and user behaviour.
- Since its inception, India's internet user base

has exploded from a mere 5.5 million to a staggering 850 million.

- The nature of internet usage has also evolved, with the emergence of various intermediaries and the proliferation of new forms of user harm, such as cyberstalking, trolling and doxing.
- The DIA recognises these changes and aims to provide a comprehensive legal framework to address them.
- It is designed to address the challenges and opportunities presented by the dramatic growth of the internet and emerging technologies.
- The primary motivation behind the DIA is to bring India's regulatory landscape in sync with the digital revolution of the 21st century.

Key Provisions of the Digital India Act 2023:

- It places a strong emphasis on online safety and trust, with a commitment to safeguarding citizen's rights in the digital realm while remaining adaptable to shifting market dynamics and international legal principles.
- It recognises the growing importance of new age technologies such as artificial intelligence (AI) and blockchain and provides guidelines for their responsible utilisation.
- It upholds the concept of an open internet, striking a balance between accessibility and necessary regulations to maintain order and protect users.
- It mandates stringent Know Your Customer (KYC) requirements for wearable devices, accompanied by criminal law sanctions.
- It contemplates a review of the "safe harbour" principle, which presently shields online platforms from liability related to user generated content, indicating a potential shift in online accountability standards.

Significance of the Digital India Act 2023:

- The provisions underscore the proposed DIA's commitment in addressing the complexities of the digital age.
- It aims to not only encourage the adoption of the new age technologies but also to ensure that their deployment is in line with ethical-legal principles, data privacy principles and mechanisms for accountability.
- This means that the DIA does not just leave it to the market to dictate the course of these

technologies but actively engages in shaping their development and use within a regulatory framework.

- And by doing so, the DIA strikes a balance between fostering innovation and safeguarding against potential harms.
- This forward-looking stance is not only beneficial for citizens and businesses but also positions India as a responsible player in the global technology landscape - harnessing the full potential of new age technologies while mitigating associated risks.

The Challenges to Implementing Digital India Act 2023:

- Potential impact on innovation and the ease of doing business: Stricter regulations, particularly in emerging technologies, could inadvertently stifle entrepreneurial initiatives and deter foreign investments.
- The review of the "safe harbour" principle: It could lead to a more cautious approach among these platforms, possibly impinging on freedom of expression.
- Challenges to effective enforcement: This will require substantial resources, expertise, and infrastructure.
- Balancing the interests of various stakeholders: Including tech giants, while ensuring the protection of citizen rights, poses a significant challenge.

Way Ahead:

- While the DIA is a progressive move - ensuring a secure, accountable, and innovative digital future for India, its implementation and potential repercussions warrant vigilant monitoring and adaptability to avoid unintended consequences.
- It represents a forward looking approach to regulation in an age of constant change and has the potential to shape the country's digital landscape for generations to come.
- As consultations continue, it will be interesting to see how this proposed legislation evolves and plays out in the dynamic digital arena.

AMAZON FUTURE ENGINEER PROGRAMME

- NESTS (Ministry of Tribal Affairs), in collaboration with Amazon India and Learning Links Foundation, launches Phase II of the 'Amazon Future Engineer Programme' for EMRs
- The initiative has the potential to bridge the academic gap existent among tribal communities, ensuring their successful careers in emerging technologies: Shri Arjun Munda.
- EMRS Coders Expo, an exhibition of Top 20 Coding Projects from EMRs during the previous academic year, also inaugurated.
- National Education Society for Tribal Students (NESTS), under The Union Ministry of Tribal Affairs, launched the Phase II of the 'Amazon Future Engineer Programme' in 54 Eklavya Model Residential Schools (EMRS) spread across Andhra Pradesh, Gujarat, Madhya Pradesh, Odisha, Rajasthan and Telangana. The second phase would include an Advanced Block Programming and Artificial Intelligence curriculum. Secretary (Tribal Affairs), Shri Anil Kumar Jha inaugurated the three-day in-person teachers' training workshop as well as the EMRS Coders Expo, an exhibition of Top 20 Coding Projects from EMRs during the previous academic year,

PROTEIN BINDERS

- The Food Safety and Standards Authority of India (FSSAI) clarified that addition of protein binders in milk and milk products are not permitted.
- Additives that have not been specified in the Food Safety and Standards (Food Products Standards and Food Additives) Regulation, 2011, cannot be added.
- Texture Enhancement: Protein binders are used to modify the texture and consistency of food products. In dairy products like curd (yogurt), they can be added to create a thicker or creamier texture, enhancing the overall eating experience.
- Diverse Food Applications: Protein binders are versatile and find applications in various types of foods, particularly in semi-solid or solid products where texture plays a crucial role in consumer acceptance. This includes not only dairy but also items like sauces,

dressings, and baked goods.

- **Digestibility and Nutritional Impact:** The addition of protein binders can affect the digestibility of the proteins present in the food product. This can have implications for the bioavailability of essential nutrients and the overall nutritive value of the food.
- **Bioavailability of Active Compounds:** Beyond texture and nutrition, protein binders can also influence the bioavailability of bioactive compounds, such as vitamins, minerals, and phytochemicals, that may be present in the food. Binding interactions can affect how these compounds are absorbed and utilized by the body.
- **Ingredient Selection:** The choice of protein binders is critical, as different proteins can have varying effects on texture, digestibility, and bioavailability. The selection depends on the desired characteristics of the final product.

About Protein Binders

- Protein binders, also known as binding proteins or simply binders, play a critical role in various biological processes.
- They are essential components of living organisms, and their ability to interact specifically with other molecules is fundamental to many aspects of life.

Nature of Protein Binders:

- **Protein Structure:** Binders are typically proteins, which are complex biomolecules composed of amino acid chains folded into specific three-dimensional structures.
- **Specificity:** Protein binders exhibit high specificity, meaning they can selectively recognize and interact with particular molecules, known as ligands.
- **Binding Sites:** Binders have specific regions or pockets, called binding sites or active sites, where ligand interactions occur.
- **Binding Affinity:** The strength of the interaction between a binder and its ligand is characterized by binding affinity, often measured by dissociation constants (K_d).

Functions of Protein Binders:

- Protein binders have diverse functions within biological systems:
- **Transport:** Some proteins, like hemoglobin, bind to and transport molecules such as

oxygen, ensuring their efficient distribution throughout the body.

UTTAR PRADESH ACHIEVES 100% ODF

- Uttar Pradesh Achieves 100% ODF Plus Coverage under Swachh Bharat Mission Grameen. 95,767 Villages Declare Themselves ODF+ With Solid/Liquid Waste Management Systems.
- Over 80,000 Villages Achieve ODF Plus Status in Last 9 Months. Achievement Comes Amidst Nationwide 'Swachhata Hi Seva' Campaign: A Jan Andolan With 88 Lakh People Participating In Mass Mobilization & Shramdaan In U.P. Alone
- An ODF Plus Model village is one which is sustaining its ODF status and has arrangements for both Solid Waste Management and Liquid Waste Management; and observes visual cleanliness, i.e., minimal litter, minimal stagnant wastewater, no plastic waste dump in public places; and displays ODF Plus Information, Education & Communication (IEC) messages.



INDIAN ECONOMY

OPEN MARKET OPERATION

- The announcement of Open Market Operations (OMOs) by the Reserve Bank of India (RBI) came without a specific calendar, creating uncertainty among market participants. The fact that OMOs could be announced at any time introduced an element of unpredictability, making it difficult for investors to plan their strategies effectively.

Key issues related to the announcement.

Anticipation of Liquidity Tightening

- The market was surprised because it expected that the best liquidity conditions would be prevalent during the October-December quarter. There was an anticipation that core liquidity might naturally decrease during this period, rendering the need for OMOs less likely in the following quarter. This unexpected announcement of OMOs suggested that the RBI was taking a proactive approach to liquidity management, which caught market participants off guard.

Inflation and Hawkish Tone

- Despite retail inflation being at 6.83% in August, the market did not anticipate the RBI's move to withdraw excess liquidity. This decision added a hawkish tint to the monetary policy, as liquidity-tightening measures are often associated with a more restrictive monetary stance. The market had not fully priced in the possibility of such a move.

Festival Season Impact

- With the forthcoming festival season, there was an expectation that liquidity might naturally tighten due to increased cash withdrawals from the banking system. Many expected the RBI to maintain a more accommodative stance in preparation for this seasonal demand for cash. The announcement of OMOs to manage liquidity signalled a different approach.

Focus on Liquidity Management

- The RBI's emphasis on "active liquidity management" in the post-policy press conference suggested a shift towards tighter liquidity conditions in the future. This

shift was influenced by concerns related to inflation risks and financial stability. The market was surprised by the RBI's intention to actively manage liquidity, signalling a more proactive approach to monetary policy.

Speculation and Uncertainty

- The absence of a specific OMO calendar and details left room for speculation among market participants. They were left wondering about the level of liquidity at which the RBI might plan OMO sales and the quantum of these operations. This uncertainty can lead to market volatility and adjustments in asset prices.
- The surprise in the markets resulted from the unexpected announcement of OMOs by the RBI, the timing of the announcement, the anticipation of liquidity conditions during the festival season, and the shift towards more active liquidity management in line with inflation targets and financial stability concerns. This uncertainty and change in stance led to market participants needing to reevaluate their expectations and strategies.

Open Market Operations (OMOs)

- **About:** Open market operations (OMOs) are one of the tools that the Reserve Bank of India (RBI) uses to regulate the money supply and liquidity conditions in the economy.
- OMOs are the sale and purchase of government securities (G-Secs) and treasury bills (T-Bills) by the RBI in the open market. When the RBI wants to inject liquidity into the system, it buys G-Secs and T-Bills from the market, thereby increasing the money supply. Conversely, when RBI wants to absorb excess liquidity from the system, it sells G-Secs and T-Bills to the market, thereby reducing the money supply.

SOCIAL BONDS

- The National Bank for Agriculture and Rural Development (NABARD) has issued its inaugural social bonds with a total size of Rs 1,040.50 crore.

Key Highlights

- **AAA Rating:** These bonds are the first externally certified AAA-rated Indian social bonds, indicating a high level of

creditworthiness. This rating is given by rating agencies CRISIL Ltd and ICRA Ltd.

- **Listing and Redemption:** The bonds are set to be listed on the Bombay Stock Exchange (BSE) on September 29, 2023, and the redemption date is September 27, 2028. Investors are required to hold the bonds for a period of five years, with annual coupon payments.
- **Face Value and Issue Size:** Each bond has a face value of Rs 1,00,000. The base issue size is Rs 1,000 crore, with an option to retain oversubscription up to Rs 2,000 crore, making the total aggregate size up to Rs 3,000 crore.
- **Purpose of Social Bonds:** Social bonds are financial instruments issued to raise funds for projects and initiatives that have a positive social impact on society. These projects can encompass areas such as healthcare, education, affordable housing, poverty alleviation, and environmental sustainability.
- **Sustainability Bond Framework:** NABARD has also recently announced a Sustainability Bond Framework, which aims to finance and refinance eligible green and social projects. This framework includes projects related to energy efficiency, green buildings, energy storage, and smart grids.

Social Bonds

- **About**
- Social bonds are a type of financial instrument designed to raise capital for projects and initiatives that have a positive social impact on society. They emerged as part of the broader sustainable finance movement, alongside green bonds, to address pressing social issues.
- Social bonds are typically issued by governments, international organizations, or corporations and are characterized by their commitment to funding projects related to healthcare, education, affordable housing, poverty alleviation, and environmental sustainability.

Features of Social Bonds

Purpose-Driven

- Social bonds are inherently purpose-driven financial instruments. They are dedicated to financing projects that have a clear and

measurable social objective at their core. These objectives can span a wide range of critical social issues, such as improving healthcare access, advancing education, providing affordable housing, alleviating poverty, and promoting environmental sustainability. The defining characteristic of social bonds is their commitment to generating tangible and positive societal outcomes.

- This purpose-driven nature ensures that the capital raised through social bonds is channelled directly into projects that address pressing social challenges, contributing to the betterment of communities and individuals.

Issuer Variety

- Social bonds enjoy a broad spectrum of issuers. They are not limited to government entities but can be issued by a diverse array of organizations. This includes governments at various levels (local, regional, and national), international multilateral organizations (such as the United Nations or World Bank), financial institutions (such as banks or development banks), and corporations. This diversity of issuers underscores a collective commitment to addressing social issues and leveraging financial markets to do so.
- The range of entities that can issue social bonds widens the pool of potential projects and capital sources, making it possible to address a more comprehensive set of social challenges.

FINANCIAL STABILITY BOARD (FSB)

- The Financial Stability Board (FSB) is launching a probe into the buildup of debt outside traditional banks, as it seeks to limit hedge funds' borrowing and boost transparency.
- **FSB was established by the G20 in 2009 in the wake of the financial crisis.**
- **Mandate:** It was created expressly to coordinate at the international level the work of national financial authorities and international standard-setting bodies and to develop and promote the implementation of effective regulatory, supervisory, and other financial sector policies in the interest of financial stability.

- The FSB brings together national authorities responsible for financial stability (central banks, supervisory authorities, and finance ministries), international organisations, and standard-setting bodies.
- The FSB operates by monitoring, analyzing, and making recommendations on key aspects of the financial system. It assesses emerging issues that could impact global financial stability.
- The FSB's decisions are not legally binding on its members.
- Headquarters: Basel, Switzerland.

Members:

- The FSB consists of 68 member institutions. It comprises several central banks, ministries of finance, and supervisory and regulatory authorities from 25 jurisdictions, as well as 10 international organizations and six Regional Consultative Groups (RCGs). The board includes all G20 major economies.

Structure:

- The Plenary, which serves as the sole decision-making body. The Steering Committee, which takes forward operational work in between plenary meetings. Three Standing Committees, each with specific but complementary responsibilities.
- India and FSB: India is an active member of the FSB, having three seats in its Plenary represented by the Secretary (Dept of Economic Affairs), Deputy Governor-RBI, and Chairman-SEBI.

ENVIRONMENT AND ECOLOGY

WATERMEAL

- Scientists from the Mahidol University in Thailand have been exploring the potential of watermeal, the smallest flowering plant on Earth, as a source of nutrition and oxygen for astronauts.



- Watermeal, the smallest flowering plant on Earth, is being explored as a potential source of nutrition and oxygen for astronauts by scientists from Mahidol University in Thailand.
- This research was conducted in collaboration with the European Space Agency's (ESA) ESTEC technical centre in the Netherlands.

Hypergravity Experiment

- The research involved subjecting watermeal to hypergravity conditions aboard ESA's Large Diameter Centrifuge (LDC), capable of simulating gravity levels up to 20 times that of Earth for extended durations.
- The goal was to understand how watermeal responds to changing gravity levels, which is essential for future space-based agriculture.

Watermeal Characteristics

- Watermeal is even smaller than its relative, duckweed, and lacks roots, stems, or leaves. It simply floats on bodies of water.
- Due to its simplicity and rapid growth rate, watermeal is an ideal candidate for studying the effects of gravity shifts on plant development.

RED SEA CORAL REEFS AND SEA URCHINS

- The Red Sea's spectacular coral reefs face a new threat. Marine biologists warn—the mass death of sea urchins that may be caused by a mystery disease.

Red Sea Coral Reefs

- Red Sea coral reefs are the northernmost in the Indian Ocean. Most of the Red Sea coast is rimmed by shallow submarine shelves and extensive fringing reef systems, by far the dominant reef type found here.
- Red Sea fringing reef platforms are over 5000 years old, and the entire coastal reef complex extends along some 2,000 km of shoreline.
- Most such reefs grow directly from the shoreline. The dominant, most actively growing corals include most notably highly branched species of the genera *Acropora* and *Porites*.
- Such Red Sea coral reef formations are almost certainly the result of the active and unusual tectonic forces that have been at work here for millennia and continue today.
- There are a few true atolls in the Red Sea (several off the coast of Sudan), but no true barrier reefs.

Characteristics of Red Sea Coral Reefs

- Red Sea corals have developed an unusually high tolerance to the extreme temperatures, salinity, and occasional turbidity (caused by huge seasonal dust storms) that occur in the region. Such conditions that would be lethal or highly damaging to most hard corals found elsewhere.
- Also, water clarity is exceptional in the Red Sea because of the lack of river discharge and low rainfall. Thus, Red Sea reefs are not heavily impacted by the suspension and dissipation of fine sediments that plague reefs in tropical oceans near large land masses.
- Red Sea coral reefs are particularly well developed in the north and central portions (off the coasts of Egypt, Saudi Arabia, Sudan), with large sizable offshore reef complexes containing small islands, fringing reefs, and a variety of reef-associated habitats.
- Further south, coral growth is somewhat

inhibited by the influx of nutrient-laden water where the Indian Ocean enters the Red Sea. The surface waters of the more southerly areas are also subject to far greater mixing with deeper water caused by strong winds coming off a high mountainous coast.

- In general, the marine biota of Red Sea coral reefs is characterized by high endemism. For example, of the 1200 or so Coral Reef Fish species recorded, about 10% are endemic (found nowhere else).
- Despite the extreme conditions characteristic of the region, Red Sea coral reefs are generally healthy. There is usually minimal coral bleaching evident, although some localized outbreaks are reported from time to time.

SEA URCHINS



- Sea urchins are members of the phylum Echinodermata, which also includes sea stars, sea cucumbers, sand dollars, brittle stars, and crinoids.
- Like other echinoderms, they have five-fold symmetry (called pentamerism) and move by means of hundreds of tiny, transparent, adhesive "tube feet".
- Urchins may typically range in size from 3 to 10 cm, but the largest species can reach up to 36 cm.
- Sea urchins are benthic creatures and eat plant and animal matter, largely preferring kelp, algae, and sponges in their rocky habitats, as well as decaying matter that settle down from the water column.

EPHEMERAL PLANT



- Blooming is often associated with the spring season. Yet, certain plant species wait throughout the year to bloom only during the monsoon because they love rain. Such plants are termed ephemerals.

Ephemeral Plant

- An ephemeral plant is one marked by short life cycles.
- They are of two types: annual and perennial.

Annual ephemerals

- Annual ephemerals form new individuals every year and are seen for a very short period.
- They form seeds at the end of their life cycle, remaining dormant till the next year.

Perennials

- Perennials have a source like a tuber or a bulb in the soil, so it is the same individual, but the other parts (stem, flowers) are newly formed.

Types of Ephemerals based on Growth Strategies

Spring Ephemeral

- Spring ephemeral refers to perennial plants that emerge quickly in the spring and die back to their underground parts after a short growth and reproduction phase.

Desert ephemerals

- Desert ephemerals are plants which are adapted to take advantage of the short-wet periods in arid climates.

Mud-flat ephemerals

- Mud-flat ephemerals take advantage of short periods of low water.

Weedy Ephemerals

- In areas subjected to recurring human disturbance, such as plowing, weedy ephemerals are very short-lived plants whose entire life cycle takes less than a growing season.
- In each case, the species has a life cycle timed to exploit a short period when resources are freely available.

Primary Job: Preserving ecosystem.

- The primary job of these flowers is to act as an important source of nectar and pollen for native pollinators.
- Their presence in all microhabitats on a plateau ensures the appropriate presence of soil and, most importantly, water.
- Quite a few of them are threatened due to land use change, and expansion of roadways and infrastructure.

THE MANAS NATIONAL PARK & TIGER RESERVE ANNOUNCED THAT THE POPULATION OF SWAMP DEER AT THE PARK HAS WITNESSED A RISE.



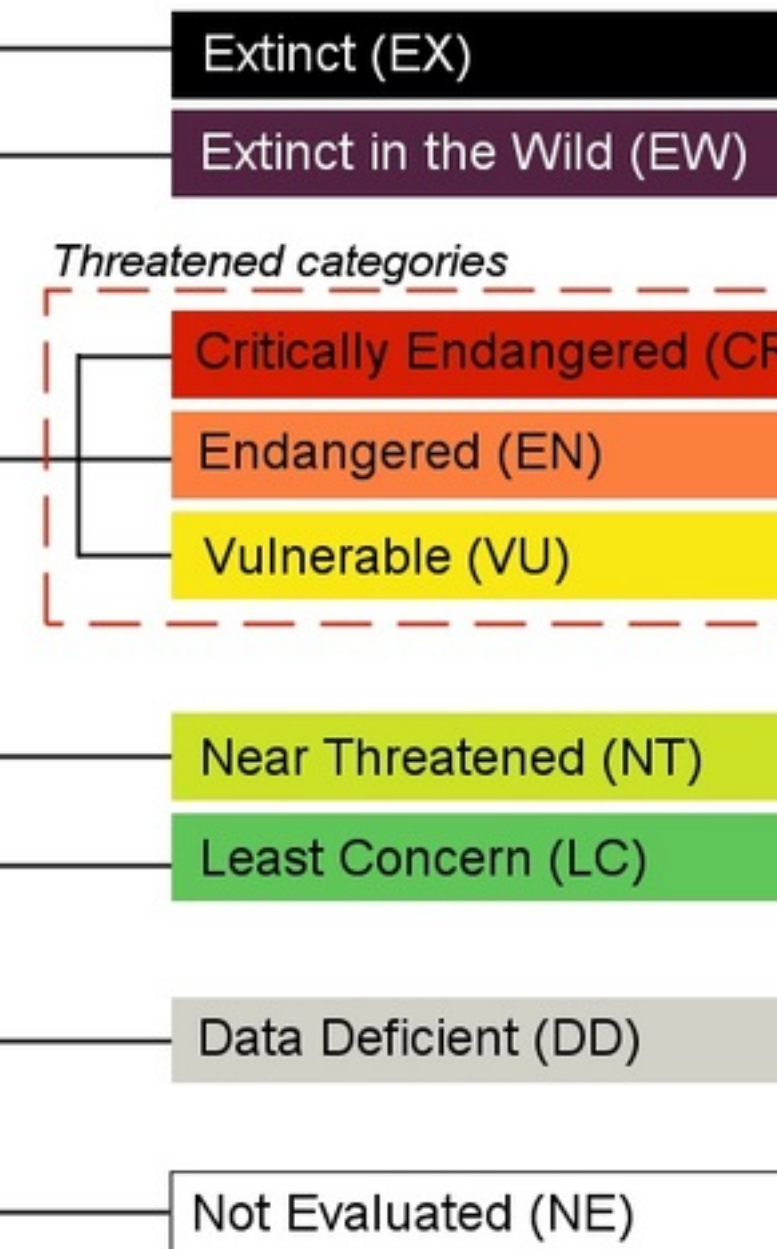
- The swamp deer (*Rucervus duvaucelii*) also called as barasingha is a deer species distributed in the Indian subcontinent.
- It belongs to the family Cervidae (order Artiodactyla), found in open forests and grasslands of India and Nepal. It is now extinct in both Bangladesh, and in Pakistan.
- There are three subspecies of swamp deer found in the Indian Subcontinent.
- The western swamp deer (*Rucervus duvaucelii*) found in Nepal,
- Southern swamp deer (*Rucervus duvaucelii branderi*) found in central and north India and Eastern swamp deer (*Rucervus*

duvaucelii ranjitsinhi) found in the Kaziranga and Dudhwa National Parks.

AGRICULTURE

Conservation status

- IUCN Red List: Vulnerable
- CITES: Appendix I
- The Wildlife Protection Act, 1972: Schedule I



PUSA-44

- Recently, Punjab Chief Minister announced that the state will ban the cultivation of the PUSA-44 paddy variety from next year onwards.



About PUSA-44:

- It is a paddy variety which was developed in 1993 by the Indian Council of Agricultural Research (ICAR).
- By the end of 2010s, it had gained widespread popularity among farmers across the Punjab, covering approximately 70 to 80% of the area under paddy cultivation.
- Farmers claim that PUSA-44 yields nearly 85 to 100 mann (34 to 40 quintals) per acre, while other varieties' yield average is 28 to 30 quintals per acre.

Concerns

- It is a long-duration variety, taking around 160 days to mature.
- This is around 35 to 40 days more than other varieties, requiring 5-6 extra cycles of irrigation.
- With Punjab facing severe groundwater depletion and the availability of short-duration paddy varieties, the government aims to conserve one month of irrigation water by banning the variety.
- Moreover, this variety is also known to exacerbate the long-running issue of stubble burning in the state.
- This variety generates around 2 per cent more stubble than short varieties, which becomes a significant concern when cultivated on a large scale.

RISING OIL PRICES



- **Brent crude surpasses \$93/bbl, OPEC+ production restraint and declining US inventories drive prices near 2014 highs.** Analysts anticipate ongoing tightness due to demand outpacing supply and geopolitical uncertainties elevating risk factors.

Key factors influencing crude oil prices

- **Extended Oil Output Cuts:** Saudi Arabia and Russia, two major oil-producing countries, extended their voluntary oil output cuts by a combined 1.3 million barrels per day (bpd) until the end of the year. This move tightened the global oil supply, leading to a surge in international crude prices.
- **OPEC+ Cuts:** In addition to Saudi Arabia and Russia's cuts, the Organization of Petroleum Exporting Countries and its allies (OPEC+) had previously agreed on production cuts running until the end of 2024. These cuts further reduced the global oil supply.
- **Brent and WTI Prices:** Brent crude futures were trading at \$93.22 per barrel, and US West Texas Intermediate (WTI) crude futures were at \$89.73 per barrel. These prices indicate the cost of oil in the international and US markets, respectively.
- **US Dollar Strength:** The US dollar hit a 10-month high, which can have a negative impact on oil prices. Since oil is priced in dollars, a stronger dollar makes it more expensive for importers using other currencies, potentially reducing oil demand.
- **Central Bank Policies:** The US Federal Reserve and the European Central Bank signalled their commitment to fighting inflation, suggesting that tight monetary policies may persist. Higher interest rates resulting from such policies can slow economic growth, which in turn can curb oil demand.

- **Russian Export Ban:** Russia had previously imposed a ban on gasoline and diesel exports, but it later softened this stance. Exports of certain products were allowed to proceed, which could influence the global oil supply.
- **OPEC Demand Outlook:** OPEC revised its global oil demand forecast for 2023 but still anticipated higher demand compared to 2022. The 2024 demand outlook was also reduced. These demand forecasts can impact oil prices as they reflect expectations for future consumption.
- **Supply Shortfall:** The market was facing a potential supply shortfall of more than 3 million barrels per day in the next quarter due to Saudi Arabia's extended output cuts. This shortfall was expected to be one of the largest deficits in over a decade.

Rising oil prices can have a significant impact on the Indian economy

Current Account Deficit (CAD)

- Rising oil prices lead to higher import costs for crude oil, which India heavily relies on as a net oil importer. When the cost of importing oil increases, it contributes to a larger current account deficit. This deficit reflects the imbalance between India's earnings from exports and its expenditure on imports, particularly oil.
- **A larger CAD puts pressure on the country's foreign exchange reserves,** as India needs to pay for these imports in foreign currency (usually U.S. dollars). This, in turn, can weaken the country's currency value, affecting the exchange rate and making imports more expensive.

Inflation

- Elevated oil prices have a cascading effect on inflation in India. Higher oil prices result in increased transportation costs, impacting the entire supply chain.
- When transportation costs rise, businesses often pass these costs onto consumers by increasing prices for goods and services. This, in turn, **fuels inflationary pressures, impacting the cost of living for citizens.** Inflation can erode purchasing power and reduce the real income of individuals and households.

Fiscal Deficit

- To shield consumers from the full impact of oil price hikes, the Indian government often subsidizes certain petroleum products, such as diesel and cooking gas. These subsidies help keep consumer prices stable but strain the government's finances.
- As oil prices rise, the fiscal deficit may increase due to the government's higher subsidy burden. The fiscal deficit is the gap between government revenue and expenditure. A widening fiscal deficit can lead to increased government borrowing, which can have implications for interest rates and the overall health of public finances.

Trade Balance

- Rising oil prices mean that India needs to spend more on oil imports. This has a direct impact on the trade balance, which measures the difference between the value of exports and imports. When imports, particularly oil imports, increase due to higher prices, it can deteriorate the trade balance. A trade deficit, where imports exceed exports, can negatively impact the country's overall economic health and potentially weaken its exchange rate, making imports more expensive.

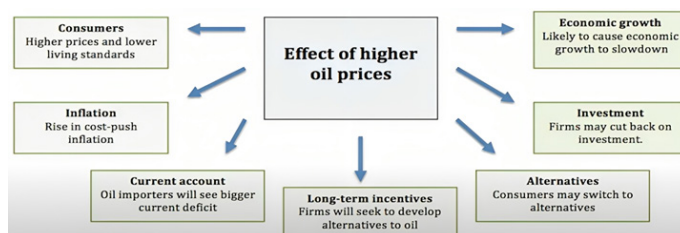
Energy Costs

- As oil prices rise, so do the costs of energy for industries, businesses, and households. This can have a direct impact on economic competitiveness. Businesses may face higher production costs, leading to reduced profitability. Households may see an increase in their energy bills, reducing disposable income. Higher energy costs can hamper economic growth by reducing both consumer spending and industrial production.

Monetary Policy

- The Reserve Bank of India (RBI) may need to adjust its monetary policy in response to inflationary pressures caused by rising oil prices. One of the tools the RBI uses is interest rates. If inflation rises due to higher oil prices, the RBI may consider increasing interest rates to control inflation. Higher interest rates can impact borrowing costs for businesses and individuals. It can also influence investment decisions and

consumer spending patterns, potentially slowing economic growth.



Strategic Petroleum Reserves (SPR)

- India has been actively building strategic petroleum reserves (SPRs) as a strategic measure to enhance its energy security. These SPRs are large underground storage facilities for crude oil that can be tapped into during times of supply disruptions or sharp price spikes. By maintaining strategic reserves, India aims to reduce its vulnerability to sudden oil supply disruptions, whether due to geopolitical tensions or natural disasters.

Diversification of Energy Sources

- India is making significant investments in diversifying its energy mix by shifting towards renewable energy sources, such as solar and wind power. This diversification aims to reduce the country's heavy reliance on fossil fuels, including oil. By harnessing renewable energy, India not only mitigates the impact of oil price fluctuations but also contributes to environmental sustainability and energy independence.

Fuel Price Reforms

- The Indian government has implemented gradual fuel price reforms, moving towards market-based pricing for petroleum products. Historically, fuel prices in India were heavily subsidized, with the government bearing a significant portion of the cost. However, these subsidies strained the government's budget and posed challenges during periods of high oil prices. By allowing fuel prices to respond more directly to international oil price fluctuations, the government aims to reduce the fiscal burden associated with subsidies and promote market efficiency.

GEOGRAPHY

GOAN CASHEW GETS GI TAG

- The Geographical indication (GI) tag for Goan cashews holds significant implications for the cashew industry in Goa.



Significance of GI Tag for Goan Cashew

- The GI tag ensures that cashews bearing this label are authentic products originating from Goa. This helps consumers distinguish between genuine Goan cashews and those sourced from outside the state, which are often falsely marketed as 'Goan cashews.'
- Goan cashew manufacturers and processors can use the GI tag as a trademark in the international market. This protection helps safeguard the reputation and quality associated with Goan cashews.
- Goa has a long history of cashew cultivation, and the GI tag helps in preserving the cultural and historical legacy of Goan cashews.
- By promoting authentic Goan cashews, the GI tag can potentially boost the demand for these products, benefitting local cashew producers, manufacturers, and the state's economy.

UDANGUDI PANANGARUPATTI

- Recently, Udangudi 'Panangarupatti' (palm jaggery/ gur) from Tamil Nadu has received a Geographical Indication (GI) tag.
- The palm jaggery preparation procedure in this area is traditional till date without inclusion of any additional modern strategies.

Uniqueness:

- The karupatti prepared from the palm sap from the region around Udangudi in

Tiruchendur taluk in Thoothukudi district has some uniqueness.

- This is due to the presence of red sand dune soil found in the region.
- This soil holds less groundwater. The moisture content in the atmosphere is less because of the dry climatic condition, which leads to high sucrose content, in turn adding taste.
- The region's dry climate is also suitable for storage of karupatti for a longer duration.
- No chemical additives like Triple super phosphate and phosphoric acid are used in its preparation.

KEY FACTS ABOUT GEOGRAPHICAL INDICATION (GI) TAG

- It is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- This is typically used for agricultural products, foodstuffs, wine and spirit drinks, handicrafts and industrial products.
- The Geographical Indications of Goods (Registration and Protection) Act, 1999 seeks to provide for the registration and better protection of geographical indications relating to goods in India.
- This GI tag is valid for 10 years following which it can be renewed.

INDIA IS LAUNCHING A NATIONAL FRAMEWORK FOR CLIMATE SERVICES

- India is embarking on a major programme to launch its maiden national-level framework towards providing climate services and information.
- The National Framework for Climate Services (NFCS) is spearheaded by the India Meteorological Department (IMD). NFCS is based on the Global Framework for Climate Services (GFCS).
- It envisions to bring a seamless working platform for users of climate information and services and help decide and mitigate climate risks for key sectors like agriculture, energy, disaster management, health and water.

Background

- The announcement to establish a GFCS was made during the third World Climate Conference held in Geneva in 2009.
- This framework is led by National Meteorological and Hydrological Services (NMHS) in their respective nations.

About

- GFCS is a partnership of governments and organisations at a global level, for the production and better usage of climate information and services.
- It aims to facilitate researchers and users of climate information and services to join hands in order to make informed and actionable decisions for the long-term betterment.

Functions

- GFCS envisages to generate high-quality data from national and international databases on temperature, rainfall, wind, soil moisture and ocean conditions and other vital weather parameters.
- This is aimed at creating long-term historical averages of these parameters, as well as maps, risk and vulnerability analyses, assessments and long-term projections and scenarios.

Five major components under GFCS

- These are Observations and Monitoring, Research, Modelling and Prediction, Climate Services Information System, User Interface Platform and Capacity Building.
- At present, the priority sectors where the GFCS focuses upon are agriculture and food security, energy, health, water and disaster risk reduction.

India is launching a national framework for climate services

- In lines with the global framework, the national framework will be based on country- specific weather and stakeholder needs.
- It will be a multi-stakeholder platform to enable the development and delivery of climate services.
- The goal of NFCS is to coordinate institutions so they can work together to: Co-design, Co-produce, Communicate, Deliver, Use

climate.

- Along with the identified sectors of focus, India could add other relevant sectors like transport, tourism and other emerging sectors from time to time.

Nodal agency

- The nodal agency for the formulation and implementation of the national framework in India will be the IMD.

Function

- Initially, the NFCS will work in bridging functioning gaps between the various agencies who require climate services.
- These include the hydrological, power, renewable energy, transport, dams and irrigation, health agencies are central, state and other levels.

Why the NFCS is needed?

- There remain many gap areas across terrains and the seas, wherein no weather data is available.
- There is a lack of long-term (100 years or more) climatological data from the Himalayan regions, the oceans, besides inexistence of radar and satellite-based climatology.
- With NFCS, the Met department aims to:
 - strengthen the observational network on land and the seas,
 - improve the data inflow and eventually use it to run weather and climate models for deriving climate predictions.
- The climate data and information products will help identify agricultural production, health trends, population distribution in high-risk areas, road and infrastructure mapping for the delivery of goods and other socio-economic variables.
- The early implementation and acceleration of NFCS will be possible when planned in a mission-mode and is driven by the country's highest decision-making office.

SELA TUNNEL PROJECT

- The BRO officials recently said that nearly 96 percent of the work on the strategically crucial Sela Tunnel is complete, and it is likely to be inaugurated by year-end.



- Location: It is located in the West Kameng district of Arunachal Pradesh.
- Once completed, the Sela tunnel will be the world's longest bi-lane tunnel at an altitude above 13,000 feet. It will ensure all-weather connectivity between Guwahati in Assam and Tawang in Arunachal Pradesh.
- It is being excavated below the Sela Pass on the NH-13 component of the Trans-Arunachal Highway system. It is being built by the Border Roads Organisation (BRO) under Project Vartak and the tunnel's construction commenced on April 1, 2019.

Project Details:

- Tunnel 1: This single-tube tunnel has a length of 980m.
- Tunnel 2: This bi-lane tunnel has a length of 1555m. It includes one escape tube for emergencies.
- Roads: Approach to Tunnel 1 is 7100m, the road between the two tunnels is 1340m, and the approach to Tunnel 2 is 340 m long.

Key Facts about Sela Pass:

- It is a high-altitude mountain pass located in the Tawang district of Arunachal Pradesh.
- Elevation: 4,170 meters above sea level
- It connects Tawang Valley to the rest of India.
- Open throughout the year, Sela Pass is managed by the BRO

THE MINISTRY OF POWER REVIEWS IMPACT OF FLASH FLOODS IN TEESTA BASIN, SIKKIM ON CENTRAL HYDRO POWER PROJECTS

- Central Government to make a detailed assessment of damage to hydropower projects after the flood water recedes.
- NHPC is taking all possible measures to get the hydropower projects operational at the earliest.

- The Power Ministry is continuously monitoring the situation arising out of flash floods in Teesta Basin in Sikkim



Teesta Basin

- Due to flash floods in the Teesta Basin in the intervening night of 3rd and 4th October 2023, all the bridges downstream to Teesta -V Hydropower Station upto Tarkhola/ Pamphok have been submerged/ washed out thus severely affecting commutation and communication in these areas.
- The flood water over topped the Dam of Teesta V Power Station (510 MW). All connecting roads to the project sites as well as parts of the residential colony have been severely damaged.
- Presently, the power station is under shutdown and not generating electricity. NHPC had timely evacuated the manpower on all its projects and ensured that they are shifted to safer places. However, one casualty is reported from Teesta V power station.

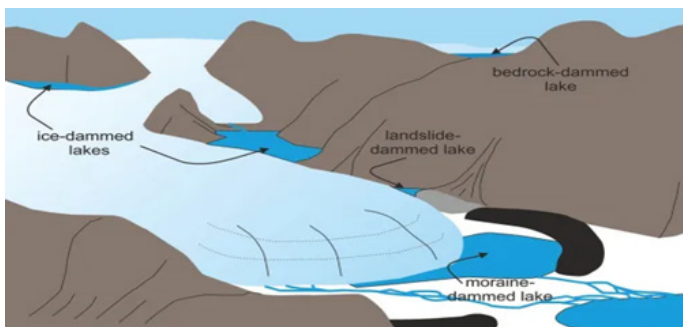
Quantum damage

- The quantum of damage at all the projects sites will be assessed in detail after the water level recedes. NHPC is making all possible efforts with the help of the state government, disaster management authorities and district administration to maintain the supply of essential commodities like food, medicine, electricity etc. in the affected regions.

GLACIAL LAKE OUTBURST FLOOD

- Recently, a glacial lake outburst flood in the South Lhonak Lake of Sikkim killed ten people and many Army personnel are missing.

- Glacial lakes are large bodies of water that sit in front of, on top of, or beneath a melting glacier.
- As they grow larger, they become more dangerous because glacial lakes are mostly dammed by unstable ice or sediment composed of loose rock and debris.
- In case the boundary around them breaks, huge amounts of water rush down the side of the mountains, which could cause flooding in the downstream areas. This is called glacial lake outburst floods or GLOF.
- It can be triggered by several reasons, including earthquakes, extremely heavy rains and ice avalanches
- These lakes are also often found in steep, mountainous regions, which means landslides or ice avalanches can sometimes fall directly into the lakes and displace the water, causing it to over-top the natural dam and flood downstream



Key facts about South Lhonak Lake

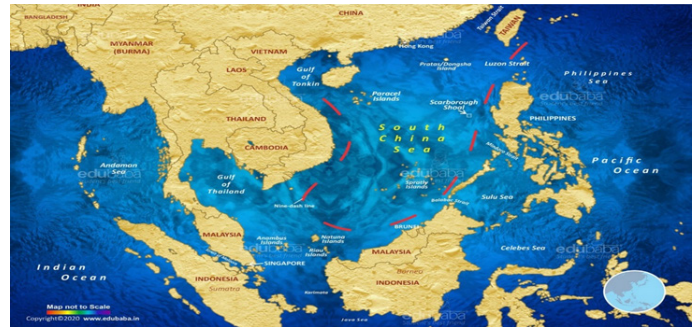
- This lake in northern Sikkim is situated about 5,200 metres above sea level.
- It formed due to the melting of the glacier. It is a moraine-dammed glacial lake at the snout of South Lhonak glacier, Sikkim Himalaya. It has become the largest and fastest-growing glacial lake in the state, with a glacial retreat of almost two kilometres in 46 years between 1962 and 2008.

SOUTH CHINA SEA

The South China Sea:

- It is a western Pacific Ocean arm that borders the Southeast Asian continent. China, Taiwan, the Philippines, Malaysia, Indonesia, Brunei, and Vietnam form its borders.

- The Taiwan Strait connects it to the East China Sea, and the Luzon Strait connects it to the Philippine Sea (both Pacific Ocean peripheral seas).

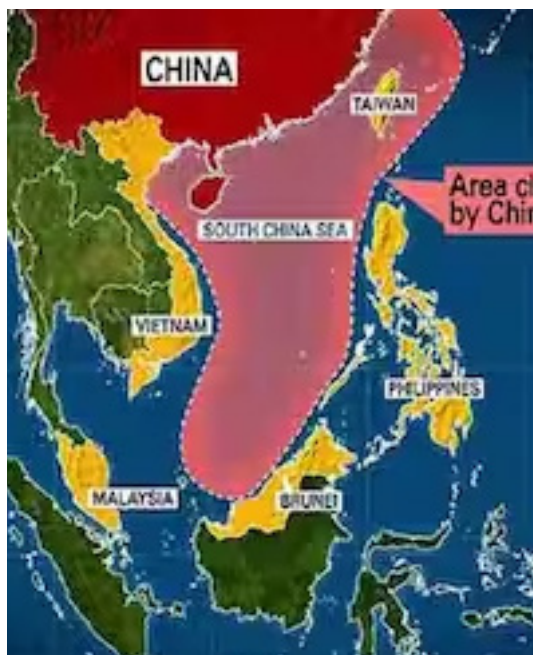


- The China Sea is formed by the South China Sea and the East China Sea.
- The Paracel Islands, which China controls, and the Spratly Islands are the two largest archipelagos.
- Climate: The weather at sea is tropical and dominated by monsoons.
- It is the world's second busiest maritime lane. It is an important trading route for crude oil from the Persian Gulf and Africa to Singapore, Thailand, Hong Kong, Taiwan, South Korea, and Japan via the Malacca Strait.
- Hong Kong, Singapore, and Kaohsiung in southern Taiwan are major ports.
- South China Sea Countries
 - The People's Republic of China
 - The Republic of China (Taiwan)
 - The Philippines
 - Malaysia
 - Brunei
 - Indonesia
 - Singapore
 - Vietnam
- South China Sea dispute
- China's Claim over the South China Sea
- China asserts sovereignty over nearly the entire South China Sea, including the Paracel Islands.
- Taiwan, the Philippines, Brunei, Malaysia, and Vietnam all have claims in the region, which is estimated to have substantial oil and gas deposits.
- China's Proclamation Regarding the South China Sea

- Since 2010, China has been transforming uninhabited islets into artificial islets to put them within the jurisdiction of the United Nations Convention on the Law of the Sea (examples include Haven Reef, Johnson South Reef, and Fiery Cross Reef).
- China has been changing the reefs' physical land features to change their size and structure. It has also constructed airstrips on the Parcel and Spratly islands.
- Chinese fishing boats are more engaged in state-sponsored paramilitary work than in commercial fishing. The United States strongly condemns China's actions.

Reasons for Dispute in the South China Sea

- China, Taiwan, and Vietnam all claim the Parcel Islands.
- China, Taiwan, Vietnam, Brunei, and the Philippines all claim the Spratly Islands.
- The Philippines, China, and Taiwan all claim the Scarborough Shoal.



INTERNATIONAL RELATIONS

BEST EVER PERFORMANCE AT ASIAN GAMES IN THE LAST 60 YEARS

- The Prime Minister has lauded India's best ever performance at Asian Games in the last 60 years with the highest ever medal tally of 107.
- The PM hailed the unwavering determination, relentless spirit and hard work of the players.



"What a historic achievement for India at the Asian Games!

- The entire nation is overjoyed that our incredible athletes have brought home the highest ever total of 107 medals, the best ever performance in the last 60 years.
- The unwavering determination, relentless spirit and hard work of our players have made the nation proud. Their victories have given us moments to remember, inspired us all and have reaffirmed our commitment to excellence."
- The Asian Games, also known as Asiad, is a continental multi-sport event held every fourth year among athletes from all over Asia.
- The Games were regulated by the Asian Games Federation (AGF) from the first Games in New Delhi, India in 1951, until the 1978 Games.
- Since the 1982 Games, they have been organized by the Olympic Council of Asia (OCA), after the breakup of the Asian Games Federation.
- The Games are recognized by the International Olympic Committee (IOC) and are described as the second largest multi-sport event after the Olympic Games.

- Nine nations have hosted the Asian Games. Forty-six nations have participated in the Games, including Israel, which was excluded from the Games after its last participation in 1974. The last edition of the games was held in Hangzhou, China from 23 September to 8 October 2023.

SIMBEX 23 CONCLUDES

- Indian Naval Ships Ranvijay (guided-missile Destroyer), Kavaratti (ASW Corvette), submarine Sindhukesari and a long range Maritime Patrol Aircraft P8I participated in the 30th edition of Singapore India Maritime Bilateral Exercise (SIMBEX) in Singapore.
- First held in 1994, the three-decade-old annual exercise kicked off with an opening ceremony on 21 September 2023, which was attended by personnel from both the navies. The ceremony saw unveiling of the SIMBEX 30th Edition Logo. The harbour Phase witnessed a wide range of professional interactions, Subject Matter Expert Exchanges, conduct of combined aviation and firefighting/ damage control exercises, and the signing of a Joint Standard Operating Procedure (JSOP) on Submarine Rescue between India and Singapore in presence of the High Commissioner of India to Singapore and the Singapore Navy Fleet Commander. The Commanding Officers of the Indian Navy contingent also paid homage at the Kranji War Memorial in a solemn wreath laying ceremony.
- Other activities undertaken during the stay in harbour included sports exchanges, cross-deck visits, and onboard visit of school children and personnel from the Indian High Commission.
- The Sea Phase of SIMBEX 23 was conducted from 25 to 28 September 2023, wherein units of Indian Navy along with RSS Stalwart, Valour, Tenacious, a submarine, Maritime Patrol Aircraft Fokker F-50 and fighter aircraft engaged in complex maritime security exercises including advanced anti-submarine warfare, surface and air defence exercises, as well as tactical manoeuvres and weapon firings.
- SIMBEX 23 ended on a high note reaffirming the close bonds of friendship and interoperability between the two maritime nations.

2023 NOBEL PRIZE FOR PEACE

- Narges Mohammadi, an Iranian activist, was awarded the Nobel Prize for Peace in 2023. The Nobel Committee recognized her dedication to fighting against the oppression of women in Iran and her relentless advocacy for human rights and freedom. It is awarded annually to individuals or organizations that have made significant contributions to promoting peace and fraternity between nations, reducing standing armies, and advancing the cause of peace.



Early Life and Background

- Narges Mohammadi was born in Iran in 1972. Her family's history is deeply rooted in political activism, starting with their involvement in the Iranian Revolution of 1979, which ultimately led to the establishment of an Islamic republic after the monarchy's downfall.
- Mohammadi's journey into activism was profoundly influenced by two significant childhood experiences. Her mother's regular visits to her imprisoned brother left a lasting impression, as did her exposure to daily television announcements of executed prisoners.

Transition to Activism

- From a young age, Narges Mohammadi was actively engaged in various causes, including advocating for women's rights in Iran and protesting against the death penalty and harsh sentences for political protesters.
- She worked as an engineer in Tehran but was eventually dismissed from her job due to government directives.

SCIENCE AND TECHNOLOGY

IRON DOME

- Iron Dome, Israel's anti-missile system recently intercepted over 5,000 rockets launched from Gaza, a narrow strip that is home to 2.3 million Palestinians.



- It is Israel's air missile defense system that can defend against short-range rockets, intercepting them in the air above the state.
- It is capable of successfully handling multiple rockets at a time.
- Developed by Rafael Advanced Defense Systems and Israel Aerospace Industries, the system became operational in March 2011.

Features:

- The Iron Dome functions by detecting, analyzing, and intercepting varieties of targets such as mortars, rockets, and artillery.
- It is powered by missile-defense batteries.
- It has all-weather capabilities and is able to function at night or day and in all conditions, including fog, rain, dust storms, and low clouds.
- It is able to launch a variety of interceptor missiles.
- It is designed to shoot down missiles with a range of about 40 miles or less.
- It also has the ability to be moved, either onto ships or across land, to better suit defense needs.
- It must be reloaded to continuously intercept incoming missiles.

Iron Dome operates through three main components:

- A radar that detects incoming rockets.
- A command-and-control system that determines the threat level.

- An interceptor that seeks to destroy the incoming rocket before it strikes.

COOKIES

- Cookies can track online behaviour, leading to privacy concerns about digital privacy. Inadequate security of cookies can create opportunities for cybercriminals to steal personal information.



- The Digital Personal Data Protection Act 2023 in India mandates explicit consent for collecting or processing personal data via cookies. The updated law emphasises the need for transparent and well-informed consent.
- Third-party cookies have sparked debates, resulting in web browsers limiting their usage to protect user privacy. The excessive use of cookies can slow down web browsers, affecting the user experience.

Understanding Digital Cookies

- Digital cookies are small pieces of data stored on a user's device by websites. They serve various functions in the digital world, including personalization and user convenience.

How Cookies Work

- When you visit a website, the site sends a request to your browser to store a cookie. The cookie is then stored on your device's hard drive or memory. The next time you visit the same website, your browser sends the stored cookie back to the site, providing information about your previous interactions.

Types of Digital Cookies

Session Cookies

- Session cookies are temporary and are deleted when you close your browser. They are often used to maintain session information, such as shopping cart

contents.

Persistent Cookies

- Persistent cookies are stored on your device for a specified duration, even after you close your browser. They are used for tasks like remembering login credentials or user preferences.

First-party Cookies

- First-party cookies are set by the website you are currently visiting. They are commonly used for site functionality and personalization.

Third-party Cookies

- Third-party cookies are set by domains other than the one you are currently visiting. They are often used for tracking and advertising purposes.

Functions of Digital Cookies

- **Personalization:** Cookies remember login information, making it convenient for users to access websites without repeated logins.
- **Persistence:** Some digital experiences, like online shopping carts, persist across browsing sessions due to cookies.
- **Targeted Advertising:** Cookies track online behavior to deliver personalized ads aligned with user preferences.
- **Analytics:** Cookies provide invaluable data for website owners to make informed decisions about site improvements.

INDIA'S NAVIC WILL NOW BE SUPPORTED BY 'MADE IN INDIA' CHIPSETS

- NavIC, or the Navigation with Indian Constellation, is a magnificent gem in the crown of India's technological process. With celestial grace and precision, NavIC illuminates our skies and will soon guide travelers and explorers with unwavering accuracy. It comprises a constellation of seven satellites orbiting high above, weaving a celestial tapestry of signals that empower navigation, positioning and timing across the vast Indian subcontinent and beyond. The NavIC system primarily uses IRNSS (Indian Regional Navigation Satellite System) signals for navigation and positioning. These signals are transmitted by a constellation of satellites in geostationary and geosynchronous

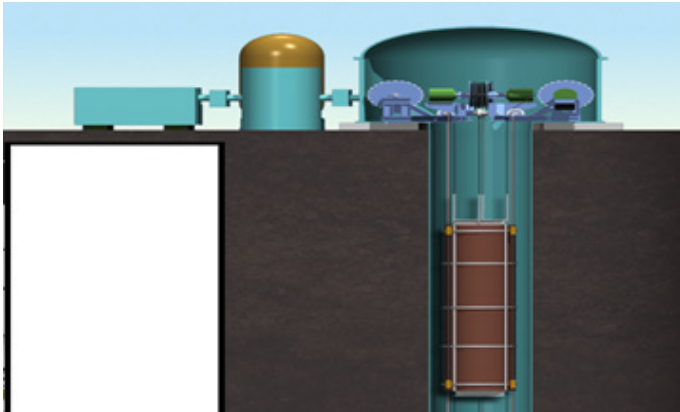
orbits. The NavIC is like GPS in its functioning and operational principles. The only difference being GPS is owned and operated by United States government while NavIC is owned and operated by India. NavIC covers all of Indian sub-continent and offers a positional accuracy of 5 mtrs compared to 15-20 mtrs of GPS.



- NavIC is India's beacon of self-reliance, shining brightly in the world of satellite navigation, and now the indigenously built NavIC enabled chipsets will make it a truly 'Made in India' marvel.
- The first time the chipsets or microchips which are capable of receiving and processing the signals of the indigenous navigational system NavIC will be designed and manufactured in India by an Indian company.
- NavIC is a satellite based navigational system, developed by Indian Space Research Organization (ISRO), which enables users to determine their precise geographic location and track their movements anywhere in India and 1500 kms beyond India's territorial boundary.
- Not all smartphones and navigational gadgets (or navigators) are compatible with NavIC. To use and decode NavIC signals, a navigating gadget should have a NavIC compatible chipset or microchip incorporated inside it. The receivers of NavIC signals such as NavIC compatible smartphones and other navigators, typically incorporate these chipsets or microchips which are designed to decode and process the signals coming from the seven Indian satellites. Currently, they have been using chipsets made by foreign companies such as Qualcomm Technologies of USA and Mediatek Inc. of Taiwan.

GRAVITY BATTERY

- As countries step up renewable energy capacity addition, there is growing urgency to develop long-duration energy storage systems.



- Gravity batteries are emerging as the best bet in solving renewable energy's biggest problem - intermittency.
- A gravity battery is a type of electricity storage device that stores gravitational energy, the energy stored in an object resulting from a change in height due to gravity, also called potential energy.
- A gravity battery works by using excess energy (usually from sustainable sources) to raise a mass to generate gravitational potential energy. This is then lowered to convert potential energy into electricity through an electric generator.
- The most common gravity battery is used in pumped-storage hydroelectricity (PSH), where water is pumped to higher elevations to store energy and released through water turbines to generate electricity.
- Another form of a gravity battery lowers a mass, such as a block of concrete, to generate electricity. As of 2019, the total world capacity for PSH is 168 GW (gigawatts). The US has 23 GW capacity from PSH, accounting for nearly 2% of the energy supply system and 95% of utility-scale energy storage in the US.
- Gravity based pumped-storage electricity is currently the largest form of grid energy storage in the world.

Development of Long-duration Energy Storage Systems:

- As countries step up renewable energy capacity addition, there is growing urgency to develop long-duration energy

storage systems.

- These systems could be installed alongside green power generation to **balance out the variability in renewable power**, given that green generation is not always in sync with the electricity demand cycle.

GREEN HYDROGEN FUEL CELL BUS

- Green Hydrogen Fuel Cell Bus from Kartavya Path, New Delhi
- Reiterating Prime Minister's vision that not only will green hydrogen be the basis of green growth through green jobs but it will also set an example for the world towards clean energy transition, "Addressing the nation from the ramparts of the historic Red Fort in Delhi, Hon'ble Prime Minister announced self-reliance in energy production through a mix of electric mobility, gas-based economy and taking Green Hydrogen on Mission mode," said Union Minister of Petroleum & Natural Gas and Housing & Urban Affairs, addressing on the occasion of flagging-off



- "The fuel cell utilizes Hydrogen and air to generate electricity to power the bus and the only by-product from the bus is water therefore making it possibly the most environmentally friendly mode of transportation as compared to conventional buses that run on diesel and petrol.
- With three times the energy density and the absence of harmful emissions, hydrogen shines as a cleaner, more efficient choice to meet the energy requirements." Additionally, the buses powered with hydrogen cells takes few minutes to fully charge itself, added Shri Puri.
- The fuels like hydrogen and biofuels shall account for 25% of global incremental en-

ergy demand growth over the next two decades. "With one of the largest synchronous grids in the world, we have achieved 'One Nation-One Grid-One Frequency' and would soon be global champion in production and exports of Hydrogen and is set to emerge as the Hub for green hydrogen".

- Complimenting Industry and Government's collaboration in taking India on a global platform and ensuring that it becomes a global hub for cleaner technologies and achieving self-reliance in energy soon, "We were privy to the launch of the world's first BS 6 (Stage II) Electrified Flex Fuel vehicle prototype that encompasses both the flex fuel engine as well as an electric powertrain that offers higher use of ethanol combined with better fuel efficiencies. Now with flagging-off the first two hydrogen cell buses, we have set the ball rolling and expect another 15 such buses to ply on Delhi NCR roads by the end of this year", stated the petroleum minister.
- Marking the green hydrogen powered buses as a game changer for the city transport.



REPORTS AND INDICES

GLOBAL HUNGER INDEX

- India ranks 111 out of a total of 125 countries in the Global Hunger Index (GHI) 2023. It is a tool for comprehensively measuring and tracking hunger at global, regional, and national levels. It is prepared jointly by Irish aid agency Concern Worldwide and German organisation Welt Hunger Hilfe.



GHI scores are based on the values of four component indicators

- **Undernourishment:** (the share of the population whose caloric intake is insufficient)
- **Child stunting:** (the share of children under the age of five who have low height for their age)
- **Child wasting:** (the share of children under the age of five who have low weight for their height)
- **Child mortality:** (the share of children who die before their fifth birthday)
- The GHI score is calculated on a **100-point scale** reflecting the severity of hunger, where zero is the best score (no hunger) and 100 is the worst.

Key findings of GHI-2023

- India's ranking is based on a Global Hunger Index score of 28.7 on a 100-point scale. This categorises India's severity of hunger as "serious". The 2023 GHI score for the world is 18.3, which is considered moderate.
- Latin American and the Caribbean is the only region in the world whose GHI scores

have worsened between 2015 and 2023. South Asia and Africa South of the Sahara are the world regions with the highest hunger levels, with GHI scores of 27.0 each

INDIA AGEING REPORT 2023

- India Ageing Report 2023 Unveils Critical Insights into Elderly Care in India.
- UNFPA (United Nations Population Fund) India, in collaboration with the International Institute for Population Sciences (IIPS), unveiled the highly anticipated "India Ageing Report 2023." This report sheds light on the challenges, opportunities and institutional responses surrounding elderly care in India, as India navigates a demographic shift towards an ageing population.



- The India Ageing Report 2023 represents a thorough review of the living conditions and welfare of older individuals in India. It leverages the latest data available from the Longitudinal Ageing Survey in India (LASI), 2017–18, Census of India, Population Projections by the Government of India (2011–2036) and World Population Prospects 2022 by the United Nations Department of Economic and Social Affairs to provide an up-to-date perspective.
- "As India ages, it is imperative to ensure that our elderly population has access to the care and support they need to live healthy, dignified, and fulfilling lives," said Mr. Saurabh Garg, Secretary, Ministry of Social Justice and Empowerment (Government of India). "The India Ageing Report 2023 provides a valuable roadmap for achieving this goal and I urge all stakeholders to work together to implement its recommendations."

- Ms. Andrea. M. Wojnar, UNFPA India Representative and Country Director Bhutan, commented, "This comprehensive report is a valuable resource for scholars, policymakers, program managers, and all stakeholders involved in elder care. Older persons have contributed significantly to society, and they deserve nothing less than our best efforts to ensure their well-being."
- The report's key findings encompass a range of analyses related to elderly well-being, including:
 - The enhancement of geriatric care to cater to the unique healthcare needs of seniors.
 - A multitude of government schemes and policies addressing the health, financial empowerment, and capacity building needs of the elderly population.
 - Community-based organizations actively engaged in digital empowerment through computer and internet usage sessions.
 - Ministerial committees dedicated to shaping policies for elderly welfare.
 - Corporate efforts for joyful aging, social assistance, old age homes, and elder abuse awareness campaigns.

INDIA RETAINS 40TH RANK IN THE GLOBAL INNOVATION INDEX 2023

- NITI Aayog to host India's Launch of the Global Innovation Index 2023
- India retains 40th rank out of 132 economies in the Global Innovation Index 2023 rankings published by the World Intellectual Property Organization. India has been on a rising trajectory, over the past several years in the Global Innovation Index (GII), from a rank of 81 in 2015 to 40 in 2023.
- Innovation has been at the forefront of our battle against the unprecedented crisis created by the pandemic and will be pivotal in driving the country's resilience, as enshrined in the Prime Minister's clarion call on Atma Nirbhar Bharat.
- The consistent improvement in the GI ranking is owing to the immense knowledge capital, the vibrant start-up ecosystem, and the amazing work done by the public and private research organizations.

- All Departments of the Government, including Scientific Departments such as the Department of Science and Technology; the Department of Biotechnology; the Department of Space; and the Department of Atomic Energy and also departments such as Ministry of Electronics and IT, Department of Telecommunications, Department of Agricultural Research & Education and the Department of Health Research have played a pivotal role in enriching the National Innovation Ecosystem. Most importantly, the Atal Innovation Mission has played a major role in expanding the Innovation ecosystem.
- NITI Aayog has been working tirelessly to ensure the optimization of the national efforts for bringing policy-led innovation in different areas such as electric vehicles, biotechnology, nanotechnology, space, alternative energy sources, etc. It has also played a role in expanding the innovation eco-system in states and districts. A constant thrust in monitoring and evaluating India's position in the global rankings has been provided by the NITI Aayog, including in the GII.



INDIAN SOCIETY/SOCIAL ISSUES/SOCIAL JUSTICE

COUNTING RURAL WOMEN'S LABOUR

- The issue of low female labour force participation rate (LFPR) is an old one and has been a subject of extensive deliberation.



- As the International Day of Rural Women approaches, it is disheartening to note that India not only recorded one of the lowest females LFPR in the world, but that it was also lower than other South Asian countries except Afghanistan and Pakistan.

Labour Force Participation Rate (LFPR)

- LFPR is defined as the percentage of persons in the labour force (working or seeking or available for work) in the population. The female LFPR (FLFPR) is the percentage of working-age women currently employed or seeking employment.

The Periodic Labour Force Survey (PLFS) Data for Women

- The PLFS data indicates that for women in the working age group (15-59 years), LFPR is only 35.6 per cent in India in 2021-22. The participation rate stands at 39.3 per cent and 26.5 per cent, respectively, in rural and urban areas.
- However, from 2017 to 2021, women's LFPR increased relative to men, particularly in rural areas.

Reason Behind Increased LFPR for Rural Women

- Larger engagement in Agriculture and Allied Activities: Nearly three-fourth of

rural working women were involved in agriculture and allied activities

- Increase in Self Employment: Education and age group-wise classification of LFPR reveals that the recent increase in rural women's LFPR is entirely explained by the increase in self-employment.

Challenges Faced by Rural Women Workforce

Higher Gender Wage Gap

- Rural women working as regular and casual wage workers faced a higher gender wage gap compared to urban women.
- Self-employed women received less than half of men's earnings, indicating a higher gender earning gap as compared to other categories of workers in rural areas.
- For the self-employed, this gap has further deteriorated from 2017 to 2021.

No Acknowledgment of Domestic Unpaid Work

- A significant proportion of women are involved in unpaid but essential activities and are not considered within the labour force in India.
- In rural areas, one third of women remained engaged in unpaid domestic chores in 2021-22.
- The Time Use Survey (2019) reveals that on average, women spend over five hours every day in unpaid domestic services and more than two hours in unpaid caregiving services in rural areas which is substantially more than men.
- Rural women also spend over seven hours every day growing crops for the market and household use in 2019.

Gender Disparity in Ownership of Landholdings

- Despite women's crucial role in agriculture, the agriculture census (2015-16) reported that only 14.7 per cent of the operational landholdings were owned by women.
- There is also a concentration of operational holdings (57 per cent) by women in the marginal and small holding categories.
- Owning land can enable women to get access to different agricultural schemes, compensation, and relief measures in case of crop loss to sustain their livelihood.

Women Are Lesser Beneficiaries than Men of

Government Schemes

- Various schemes, such as the PM Kisan Samman Nidhi (PM-KISAN) and PM Fasal Bima Yojana (PMFBY), are initiated by the Union government under the income support and risk management category
- But, the gender-wise beneficiary data highlights that only 15 per cent women farmers received financial support from PMFBY in 2023 and only 25 per cent women farmers received financial benefit under PM-KISAN.
- Since landowning is the major criterion for getting benefits of these two schemes, many women farmers end up excluded.

Suggestions for the Government to Increase Female LFPR in Rural Areas

- **Better Support and Targeted Incentives for Women**
- For India to truly reap the rewards of its vast workforce, the country needs to create a system that adequately supports and incentivises the female workers.
- India has an immense potential to create a thriving and prosperous workforce due to its vast talent pool.

Increasing Women's Mobility

- Increasing women's mobility encourages them to continue their education and participate in the labour force.
- For instance, Bihar's bicycle programme, which provides girls in grade 9 with money to buy bicycles.
- Studies found the programme reduced the gender gap in age-appropriate secondary school enrolment by 40% and it led to a 32% increase in enrolment of girls in secondary school.
- **Easy Access to Microfinance:** Greater access to microfinance loans lead to a significant increase in female labour force participation with the effect driven by self-employment and not by salaried jobs.

Protocol for Management of Malnutrition in Children

- The Union Minister of Women and Child Development (WCD) recently launched the "Protocol for Identification and Management of Malnutrition in Children".

- This is the first such protocol by the government, which has been put into place by the WCD Ministry in collaboration with the Ministry of Health and Family Welfare and the Ministry of Ayush.

The protocol provides detailed 10-step guidelines for -

- The identification and management of children suffering from severe acute malnutrition (SAM) at the Anganwadi level, including decision-making for referral, nutritional management and follow-up care.
- The processes that needed to for a healthy weight, and
- The comprehensive norms on dietary requirements for various levels of malnutrition among children.
- After the identification of children through growth monitoring data, appetite tests will be done on all SAM children for medical complications.
- SAM children who fail the appetite test will be referred to Nutritional Rehabilitation Centres, which will also be linked to medical centres.
- The protocol also includes unique initiatives like the "Buddy mother" concept which was first used in the state of Assam.
- Under this scheme, the mother of a healthy baby guides the mother of a malnourished child at an Anganwadi centre every week.

Significance of the Protocol:

- The new guidelines will check malnutrition among children, which the government is tackling through the implementation of 'Poshan Abhiyan'. The identification of malnourished children and their treatment is an integral aspect of Mission Poshan 2.0 and more than 17 crore activities have taken place during the 'poshanmaah' (nutrition month).
- The standardised protocol is significant since treatment of children with SAM was previously thought to be limited to facility-based approaches.
- This is the first time this issue would be addressed at the Anganwadi level. Hence, the Centre was now "strengthening the foundation" of the nutrition ecosystem with the development of protocols.

What is Malnutrition?

- Malnutrition refers to deficiencies, excesses or imbalances in a person's intake of energy and/or nutrients.
- The term malnutrition covers 2 broad groups of conditions -
- Undernutrition: It includes stunting (low height for age), wasting (low weight for height), underweight (low weight for age) and micronutrient deficiencies or insufficiencies (a lack of important vitamins and minerals).
- Overweight: obesity and diet-related noncommunicable diseases (such as heart disease, stroke, diabetes, and cancer).
- In India, malnourishment in children (stunting, wasting and underweight) under 5 years has reduced as per NHFS-5 (2019-21) from 38.4% to 35.5%, 21.0% to 19.3% and 35.8% to 32.1% respectively as compared to NHFS-4 (2015-16).
- Malnutrition among women aged 15-49 years has also reduced from 22.9% to 18.7%.

What is Severe Acute Malnutrition (SAM)?

- It is defined by a very low weight for height, by visible severe wasting, or by the presence of nutritional oedema. In children aged 6–59 months, an arm circumference less than 110 mm is also indicative of severe acute malnutrition. At present, there are ~7.7% SAM children in India.

YASHASWINI

- CRPF in collaboration with Ministry of Women and Child Development is organizing a cross-country bike expedition with "Yashaswini" to celebrate women power.
- A total of 150 women CRPF officers will embark for the cross-country rally on 3rd October. Rally will cover approximately 10,000 km, passing through 15 states and 2 Union Territories with the Ministry of Women and Child Development, is organizing a cross-country bike expedition with "Yashaswini" a group of CRPF women bikers to celebrate women power or Nari Shakti of the country.

ANCIENT, MODERN ART AND CULTURE

PROJECT UDBHAV

- Project Udbhav to rediscover 'Indic heritage of statecraft' from ancient texts.
- The Indian Army has started an initiative, named Project Udbhav, to rediscover the profound Indic heritage of statecraft and strategic thoughts.



Project Udbhav

- Project Udbhav was started in 2021 by the Indian Army in collaboration with the United Service Institution of India, a defence think-tank.
- It is an initiative to rediscover the profound India heritage of statecraft and strategic thoughts derived from ancient Indian texts of statecraft, warcraft, diplomacy and grand strategy.
- It focuses on a broad spectrum including Indigenous Military Systems, Historical Texts, Regional Texts and Kingdoms, Thematic Studies, and intricate Kautilya Studies.
- This pioneering initiative stands testimony to the Indian Army's recognition of India's age-old wisdom in statecraft, strategy, diplomacy, and warfare.
- At its core, Project Udbhav seeks to bridge the historical and the contemporary to integrate age-old wisdom with modern military pedagogy. By reintroducing these classical teachings into contemporary military and strategic domains, the Army aims -

To nurture its officers to apply ancient wisdom in modern scenarios and

- To allow a more profound understanding of international relations and foreign



- On the 3rd of October, 2023, a total of 150 women CRPF officers, divided into three teams, will embark on a cross-country rally. Riding 75 Royal Enfield (350cc) motorbikes, these teams will start their journeys from the Northern (Srinagar), Eastern (Shillong), and Southern (Kanyakumari) regions of India. Finally, they will all converge at the Statue of Unity in Ekta Nagar(Kevadia), Gujarat for the grand finale scheduled to take place on the 31st of October, 2023. The rally will cover approximately 10,000 km, passing through 15 states and 2 Union Territories. Throughout their respective journeys, in many districts en route various events have been planned, including interactions with the target groups of "Beti Bachao Beti Padhao" (BBBP) like school children and college girls, women self-help groups, cadets of the NCC, children of CCIs, NYKS members, adolescent girls & boys, anganwadi workers etc. and felicitation of BBBP Champions.

cultures.

- It seeks to understand the profound depths of indigenous military systems, their evolution, strategies that have been passed down through the ages, and the strategic thought processes that have governed the land for millennia.
- The Project is not limited to just rediscovering these narratives but also to also develop an indigenous strategic vocabulary, which is deeply rooted in India's multi-faceted philosophical and cultural tapestry.

News Summary Regarding Project Udbhav:

- A study to compile Indian stratagems based on ancient texts has been ongoing since 2021, and a book has been released listing 75 aphorisms selected from ancient texts.
- Recently, a dialogue on the study of ancient texts from the 4th century BCE to the 8th century CE, with a focus on Kautilya, Kamandaka, and the Kural has been undertaken under the Project.
- In connection with the Project, USI will conduct a Military Heritage Festival on October 21 and 22, to acquaint future thought leaders with the dynamics of comprehensive national security, with special emphasis on India's strategic culture, military heritage, education, modernisation of security forces and Atmanirbhar Bharat.

MANAMBADI TEMPLE



- The 1,000-year-old Naganathaswamy Temple, also known as the Kailasamudaiyar temple, located in Manambadi, Thanjavur

district, Tamil Nadu, is set for a remarkable revival after surviving a tumultuous history that included a demolition attempt to make way for a highway.

Details

- Built by the illustrious Rajendra Chola I, this temple is an exquisite example of Chola architecture, boasting intricate stone sculptures and historically significant inscriptions. The temple's restoration, undertaken by the Tamil Nadu Department of Archaeology, aims to breathe new life into this ancient treasure.

Historical Significance

- Chola Legacy: Rajendra Chola I, one of the mighty Chola dynasty rulers (1012-1044 CE), commissioned the construction of the Naganathaswamy Temple. His reign is marked by significant achievements in art, architecture, and trade, and this temple stands as a testament to his patronage of art and culture.
- Protected Monument: The temple is a protected monument, recognized for its cultural and historical importance. It houses remarkable stone sculptures and holds inscriptions that provide valuable insights into the Chola era.

Architectural Splendor

- Structural Layout: The temple is designed with an ekatala vimana (single sanctum) and a mukha mandapa (main hall). The walls of both structures are divided into three bays, each housing exquisite niches adorned with sculptures.
- Sculptural Beauty: The central bays of the vimana feature niches showcasing deities such as Dakshinamurthi, Lingodbhava, and Brahma. The mukha mandapa is adorned with niches featuring sculptures of Bikshatana, Adavallan, Ganapathi, Gangadarara, Durga, and Ammaiappar.
- Makara Thoranas: Each niche is framed by well-carved and distinctive makara thoranas, ceremonial arches adorned with relief sculptures at the center, adding to the temple's architectural grandeur.

Inscriptions of Significance

- Historical Records: The Naganathaswamy Temple boasts important inscriptions from the periods of Rajendra Chola I

and Kulothunga I (1070-1120 CE). These inscriptions provide valuable historical records, including grants of land and mentions of cultural events.

- Tamizh Koothu: Of particular note is an inscription referencing "Tamizh Koothu," which belongs to the 18th regnal year of Kulotthunga I. It pertains to a grant of land for the enactment of Tamil cultural performances during the Chithirai festival of the temple.



PERSONALITY IN NEWS

MS. WAHEEDA REHMAN TO BE HONoured WITH 53RD DADASAHEB PHALKE LIFETIME ACHIEVEMENT AWARD

- The Union Minister Shri Anurag Thakur has announced that legendary actress Ms Waheeda Rehman will be honoured with Dadasaheb Phalke Lifetime Achievement Award for the year 2021. Informing the decision, the Minister has said that he felt immense happiness and honour in announcing this award for her stellar contribution to Indian Cinema.



- The Minister has highlighted that Ms Rehman has been critically acclaimed for her roles in Hindi films, prominent among them, Pyaasa, Kaagaz ke Phool, Chaudhavi Ka Chand, Saheb Biwi Aur Ghulam, Guide, Khamoshi and several others. On her acting prowess, the Minister has said that "in her career spanning over 5 decades, she has essayed her roles with extreme finesse, leading to a National Film Award for her role as a clanswoman in the film Reshma and Shera. A Padma Shri and Padma Bhushan awardee, Waheeda ji has exemplified dedication, commitment and the strength of a Bharatiya Nari who can achieve the highest level of professional excellence with her hard work."
- Noting that the award to the veteran actress comes close to heels of passing of Nari Shakti Vandan Adhiniyam, the Minister has stated that "At a time when the historic Nari Shakti Vandan Adhiniyam has been passed by Parliament, her being awarded with this lifetime achievement award is a fitting tribute to one of the leading ladies of Indian Cinema and one who has dedicated her life after films to philanthropy and the greater good of society."
- The award will be presented during the 69th National Film awards ceremony.

PRACTICE QUESTIONS

1. Consider the following statements:

1. Project 15 Fuel Cell buses is an initiative of the Ministry Petroleum and Natural Gas.
2. India's First Green Hydrogen-Powered Fuel Cell Bus will travel between Mumbai to Gandhi Nagar.

Which of the above statements is/are correct?

- (A) 1 only
- (B) 2 only
- (C) Both 1 and 2
- (D) Neither 1 nor 2

Answer: (A)

Explanation:

Recently the Ministry of Petroleum and Natural Gas announced that it will flag off the 1st Green Hydrogen Fuel Cell Bus at Kartavya Path in Delhi. Green Hydrogen, produced using renewable energy, has the potential to play a key role in such low-carbon and self-reliant economic pathways. Fuel cells vehicles have inherent advantages of long range and lower refuelling time as compared to battery vehicles. Indian Oil has initiated a scientifically designed program to undertake operational trials of 15 Fuel Cell buses powered by Green hydrogen on the identified routes in Delhi, Haryana and U.P. IndianOil has also established a state-of-the-art dispensing facility at our R&D Faridabad campus that can refuel green hydrogen produced from electrolysis using solar PV panels.

Hence, statement 2 is incorrect.

2. Necroptosis, sometimes seen in the news is related to which of the following?

- (A) It is a form of regulated cell death in the human brain.
- (B) The drug approved by the Indian Medical Association for Alzheimer's disease.
- (C) It is a treatment procedure for the recovery of people affected by AIDS.
- (B) A new organic and sustainable method to treat Nuclear Wastewater.

Answer: (A)

Explanation:

Scientists have recently figured out the process of the death of the brain cells that can help in Alzheimer's treatment. Cell death usually happens as an immune response to infection or inflammation and rids the body of undesirable cells. When the supply of nutrients collapses, the cells swell up, destroying a plasma membrane. The cells get inflamed and die off.

The amyloid and tau are the abnormal proteins that develop in the brain. Cells in Alzheimer's patients get inflamed when amyloid protein gets into neurons in the brain. The amyloid clumps into so-called plaques and the fiber-like tau protein forms its own bundles, known as tau tangles. Neurons exposed to amyloid plaques and tau tangles initiate a cell death process called necroptosis. Necroptosis or cell death is a direct connection between these abnormal proteins, amyloid and tau.

Hence, option (A) is correct.

3. With reference to the United Nations Climate Ambition Summit (CAS), consider the following statements:

1. The CAS aimed to accelerate climate action as a prelude to the 28th Conference of Parties (COP 28).
2. China, USA and India are the most active participants of CAS.
3. In this Summit, India updated its goal to achieve net-zero emissions by 2070.

How many of the statements given above are correct?

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

Answer: (B)

Explanation:

The United Nations Climate Ambition Summit (CAS) held in United Nations Headquarters, New York on 20th September 2023, aimed to accelerate climate action as a prelude to the 28th Conference of Parties (COP 28) to the United Nations Framework Convention on Climate Change (UNFCCC). Hence, statement 1 is correct.

China, the US, and India, who collectively account for about 42% of global greenhouse gas emissions and are the top three emitters in that order, were all absent from the CAS. Hence, statement 2 is incorrect.

In COP 26, India pledged to achieve net-zero emissions by 2070.

Hence, statement 3 is correct.

4. With reference to Odhuvars, consider the following statements:

1. Odhuvars sing devotional hymns at Hindu temples in Tamil Nadu, but they are not priests.
2. They can be only men.
3. Odhuvars play an essential role in Saivite temples, as they are responsible for singing from the Thirumurai.

How many of the above statements is/are correct?

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

Answer: (B)

Explanation:

Odhuvar refers to individuals who perform devotional music and sing hymns in temples, particularly during religious ceremonies and rituals. They can be both men and women. They sing devotional hymns at Hindu temples in Tamil Nadu, but they are not priests. They play an essential role in Saivite temples, as they are responsible for singing from the Thirumurai not only during regular pujas but also during special functions and festivals, ensuring the sacred verses are honored and cherished.

Hence, statement 2 is incorrect.

5. Consider the following statements with reference to the International Coffee Organization (ICO):

1. It was established in 1963 and functions under the aegis of the United Nations.
2. India is not a member of the ICO.
3. It is being held for the first time in an Asian coffee-producing country.

How many of the statements given above are correct?

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

Answer: (B)

Explanation:

For the 1st time in Asia, Bengaluru is set to host the 5th World Coffee Conference (WCC). The International Coffee Organization (ICO) was established in 1963 under the aegis of the United Nations and following the approval of the first International Coffee Agreement in 1962. The headquarters is located in London, United Kingdom. The ICO is the only intergovernmental organization for coffee, bringing together exporting and importing Governments. It currently represents 93% of world coffee production and 63% of world consumption. The mission is to strengthen the global coffee sector and promote its sustainable expansion in a market-based environment for the benefit of all actors in the Global Coffee Value Chain (G-CVC). There are 49 Members (75 countries) with India being one of the member. Every 4 to 5 years, the International Coffee Organization holds a high-level World Coffee Conference to enable discussion around critical topics for the global coffee sector. Hence, statement 2 is incorrect.

6. Consider the following statements with reference to India Ageing Report, 2023:

1. India has the world's highest old age population.
2. Kerala has the lowest old age population in India.
3. It is jointly released by Niti Aayog and the Ministry of Health and Family Welfare.

How many of the statements given above are correct?

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

Answer: (D)

Explanation:

Recently the India Ageing Report, 2023 was jointly released by the International Institute for Population Sciences and the United Nations Population Fund. By 2050, the share of the elderly in India's total population can reach more than 20 %. The number of working age people in the age group of 15-59 years will decrease. Women will live longer than men, due to which the number of older women will be more than older men. The elderly population of India currently estimated to be at 41% and the percentage of elderly population in the country projected to double to over 20% of total population by 2050. By 2046 it is likely that elderly population will have sur-

passed the population of children (aged 0 to 15 years) in the country. The report called for a special focus on older persons in disaster-preparedness plans that are formulated. Monaco has the highest old age population in the world. In India, Kerala has the highest old age population. Hence, all statements are incorrect.

7. Consider the following statements about the Protection of Children from Sexual Offences Act (POCSO Act):

1. It is designed to protect children under 18 from sexual assault, harassment, and pornography.
2. It introduced the death penalty for aggravated penetrative sexual assault of a child under the POCSO (Amendment) Act 2022.
3. The law panel advised keeping the age of consent at 18 in the Protection of Children from Sexual Offences Act (POCSO Act) but suggested a more lenient approach for cases involving adolescents aged 16 to 18.

How many of the above statements are correct?

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

Answer: (B)

Explanation:

The Protection of Children from Sexual Offences Act (POCSO Act) is a pivotal legal framework in India dedicated to combatting child sexual abuse. Enacted in 2012, this Act falls under the jurisdiction of the Ministry of Women and Child Development (MoWCD). Its primary purpose is to safeguard individuals under the age of 18 from various forms of sexual offenses, including assault, harassment, and pornography. Hence statement 1 is correct.

The Act was further reviewed and amended in 2019 to introduce more stringent punishment including the death penalty for committing sexual crimes on children, with a view to deter the perpetrators & prevent such crimes against children. Hence statement 2 is incorrect.

Recently, the Law panel, headed by Justice (Retired) Ritu Raj Awasthi, advised keeping the age of consent at 18 in the Protection of Children from Sexual Offences Act (POCSO Act) but suggested a more lenient approach for cases involving adolescents aged 16 to 18. Hence statement 3 is correct.

8. Consider the following statements regarding International Finance Corporation (IFC):

1. It is an arm of the World Bank that offers investment, advisory, and asset-management services.
2. It encourages private-sector development in developing countries.
3. IFC also focuses on sustainable agriculture, healthcare and education.

How many of the above statements is/are correct?

- (A) Only one
- (B) Only two
- (C) All three

(D) None

Answer: (C)

Explanation:

The International Finance Corporation (IFC) is an international financial institution that offers investment, advisory, and asset-management services to encourage private-sector development in developing countries. The IFC is a member of the World Bank Group and is headquartered in Washington, D.C. in the United States. It was established in 1956, as the private-sector arm of the World Bank Group, to advance economic development by investing in for-profit and commercial projects for poverty reduction and promoting development. Since 2009, the IFC has focused on a set of development goals that its projects are expected to target. Its goals are to increase sustainable agriculture opportunities, improve healthcare and education, increase access to financing for microfinance and business clients, advance infrastructure, help small businesses grow revenues, and invest in climate health. Hence, all statements are correct

9. Consider the following statements, with reference to the 'Freedom on the Net 2023' Report:

1. The report is released by Freedom House, a specialised agency of the United Nation.
2. It evaluates Internet freedom across the world.
3. According to the report India has more internet freedom than china and Pakistan.

How many of the statements given above are correct?

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

Answer: (A)

Explanation:

The report is released by the Freedom House, a Washington DC-based non-profit organisation. The report is titled as 'Freedom on the Net 2023: The Repressive Power of Artificial Intelligence'. Hence, statement 1 is correct.

The report, the 13th edition of an annual study of human rights online, covers developments between June 2022 and May 2023. It evaluates Internet freedom in 70 countries, accounting for 88% of the world's Internet users. Hence, statement 2 is not correct.

It has raised a red flag on the increasing use of artificial intelligence by governments for censorship and spread of disinformation. Elections were a trigger for digital repression. As per the report, the sharpest rise in digital repression was witnessed in Iran. It is where the authorities shut down Internet service, blocked WhatsApp and Instagram, and increased surveillance in a bid to quell anti-government protests. On a range of 1 to 100 where '100' represented highest digital freedom and '1' the worst repression, India scored 50. The Iceland, with a score of 94, emerged as the country with the best country for Internet freedom. China, for the 9th straight year, ranked as the world's worst environment for Internet freedom, with Myanmar the world's 2nd most repressive for online freedom. Pakistan has a score of 26 which is below the India. Hence, statement 3 is not correct.

10. 'Dakar Declaration', recently seen in the news is related to which of the following?

- (A) Standardize transactions involving movable property.
- (B) To protect human beings and the environment against industrial accidents.
- (C) Reduction of global emissions reductions and increased climate finance.
- (D) Convention on the International Effects of Judicial Sales of Ships to promote legal certainty.

Answer: (C)

Explanation:

Recently, Ministers from the world's 46 least developed countries (LDC) issued a joint Dakar Declaration on Climate Change 2023 outlining their expectation and priorities for 28th Conference of Parties (COP28). The Dakar Declaration called for urgent global emissions reductions, increased climate finance, a strong outcome operationalising the new Loss and Damage Fund. Declaration has an ambitious Global Stock take to close the gaps in global climate action. While least developed countries (LDCs) account for more than 14 % of the global population, they only account for about 1 % of emissions from fossil fuels and industrial processes. The UNFCCC centralised carbon market mechanism must also be operationalised by 2024, including the recognition of the specific needs and special circumstances of LDCs. Hence, option (c) is correct.

11. Consider the following statements, with reference to International Big Cat Alliance:

1. It is a mega global alliance launched by India during the 50th anniversary of Project Tiger.
2. The alliance aims at the conservation of the world's seven principal big cats.

Which of the above statements is/are correct?

- (A) 1 only
- (B) 2 only
- (C) Both 1 and 2
- (D) Neither 1 nor 2

Answer: (C)

Explanation:

International Big Cat Alliance (IBCA) is a mega global alliance launched by India in April 2023 during the 50th anniversary of Project Tiger. The Intergovernmental body has 97 countries with many Asian and African countries becoming a part of the alliance. The alliance aims at the conservation of the world's seven principal big cats, which include the tiger, lion, snow leopard, leopard, jaguar, puma, and cheetah. Through the alliance, the member nations exchange experiences, provide faster assistance to their neighbours and place a strong emphasis on capacity building. Hence, both statements are correct.

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