

DAILY CURRENT AFFAIRS

By



SOURCES



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Important News Articles

GS I

1. 11th century Jain sculptures discovered in Mysuru district - The Hindu

Relevance: Indian culture will cover the salient aspects of Art Forms, literature and Architecture from ancient to modern times.

News:

- **Three Jain sculptures** dated to around 11th century CE were discovered in Varuna village in Mysuru district early this week.

Key Highlights

- The sculptures were amidst a heap of debris and were recovered while digging for drainage work.
- The sculptures were shifted to the archaeology museum at the premises of the Indira Gandhi Rashtriya Manav Sangrahalaya

Jainism

- Jainism came to prominence in the 6th century B.C., when **Lord Mahavira propagated the religion**.
- There were **24 great teachers**
- The last of whom was **Lord Mahavira**.
- These **twenty-four teachers were called Tirthankaras**-people who had attained all knowledge (Moksha) while living and preached it to the people.
- The first Tirthankara was **Rishabhatha**.

Vardhamana Mahavira

- Vardhamana Mahavira, the **24th Tirthankara**, was born in 540 B.C. in a village called Kundagrama near Vaishali.
- He belonged to the Jnatrika clan and was connected to the **royal family of Magadha**.
- His **father Siddharta** was the head of the Jnathrika Kshatriya clan and his mother Trishala was a sister of Chetaka, the king of Vaishali.
- At the age of 30 years, **he renounced his home and became an ascetic**.
- He **practiced austerity for 12 years** and attained highest spiritual knowledge called Kaivalya (i.e. conquered misery and happiness) at the age of 42 years

Prelims Takeaway

- Vardhamana Mahavira
- Jainism

GS II

2. In SC, Kerala seeks norms for Governors on reserving Bills - The Hindu

Relevance: Structure, organization and functioning of the Executive and the Judiciary—Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.

News:

- Kerala has moved the Supreme Court seeking to **lay down guidelines for the Governor** in case of reservation of Bills

Key Highlights

- In Supreme Court, Kerala questions **Governor's decision to refer 7 Bills to President**
- Kerala pointed out that Governor Arif Mohammed Khan sat on eight Bills that were passed by the State Legislature even up to three years.
- Later, the Governor sent seven of the eight Bills for the consideration of the President without examining each one of them and giving reasons as to why it was necessary to reserve them.

Article 200

- It prescribes that the **Governor may exercise the option of sending the Bills to the President**, withhold the assent or return it to the Assembly as soon as possible.

Prelims Takeaway

- Article 200
- Article 201

Article 201

- It states that when a Bill is reserved for the consideration of the President, **the President may assent to or withhold assent from the Bill.**
- The President may also direct the Governor to return the Bill to the House or Houses of the Legislature of the State for reconsideration.

Recent Instances

- The TN Governor forwarded the **Bill for exemption** from the National Eligibility cum Entrance Test (NEET) **to the President** after considerable delay.
- In Kerala, the Governor publicly announced that he would **not give assent to the Lokayukta Amendment Bill and the Kerala University Amendment Bill.**

3. Javier Milei writes to BRICS leaders, rejects invite for Argentina to join the grouping - The Hindu

Relevance: Important International institutions, agencies and fora- their structure, mandate.

News:

- Days ahead of formally joining **BRICS**, the **Argentine President** has sent letters to leaders of member nations informing his **withdrawal from the planned entry into the group.**

Prelims Takeaway

- BRICS
- Map based question

Background

- **BRIC term was given by economist Jim O'Neill** in 2001, then at Goldman Sachs Group Inc.
- The main purpose behind the term was to throw a spotlight on the strong economic growth rates in Brazil, Russia, India, and China.
- The term was seen as an optimistic scenario for investors.
- The BRIC club held its first leaders' summit in 2009.
- Later, **South Africa joined the grouping a year later**, adding another continent and the letter "S".
- The bloc announced its expansion in August this year.
- BRICS, generally seen as a **counter to the Western-led global order**, declared to add six new members.
- The announcement of the addition of six nations including **Argentina, Ethiopia, Iran, Saudi Arabia, Egypt, and the United Arab Emirates** was set to take effect from January 1, 2024.
- **Argentina's geopolitical interests match that of America and Israel** and Argentina is not going to join hands with communists like China and Russia.

4. India closing in on lithium deal with Argentina, tapping Australia, Chile - The Hindu

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- The Mines Ministry, through the state-owned **Khanij Bidesh India Ltd (KABIL)**, has entered into a **draft exploration and development agreement with Argentina**

Prelims Takeaway

- Khanij Bidesh India Ltd
- White gold

Key Highlights of agreement

- The Ministry of Mines entered into **agreement with Argentina miner CAMYEN** for possible acquisition and development of five-odd **lithium blocks.**
- The company has also entered into a non-disclosure agreement with **Chilean miner ENAMI** for "possible exploration, extraction, processing and commercialisation" of the mineral
- Incidentally, Latin America nations, primarily **Chile and Argentina**, **account for 30-35 percent** of the world's supplies.
- Chile, which has 11 per cent of the world's lithium reserves, supplies 26 per cent of the requirements
- Argentina with nearly one-fifth of the global resources supplies about 6 per cent.
- **Australia** is among the other **large lithium producers globally.**
- India has over the last one year upped its search for critical minerals, including lithium.

- The alkaline mineral, also called '**white gold**', is a cornerstone in India's switch to **green energy** thereby reducing its carbon footprints.
- India has put up just lithium blocks for auction – one in **J&K** and another in **Chhattisgarh** - with most of its domestic requirements, across categories like **EVs, lithium-ion battery making, and other energy storage solutions**, being met completely through imports.
- Import bill is pegged at around ₹24,000 crore.

5. PM SVANidhi benefits over 57 lakh street vendors across country: Union Minister Hardeep S Puri - PIB

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

Prelims Takeaway

- PM SVANidhi
- National Association of Street Vendors of India

News:

- Minister of Housing & Urban Affairs and Petroleum & Natural Gas, inaugurates the **National Street Food Festival 2023**.

Key highlights

- Organized by **the National Association of Street Vendors of India (NASVI)** from December 29 to December 31, 2023, at Jawaharlal Nehru Stadium.

Recognition of Street Vendors and Empowerment

- Minister acknowledges the **vibrant community of street food vendors across 28 states**.
- Highlights the role of the **Prime Minister Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi)** Scheme in empowering street vendors.
- The PM-SVANidhi scheme, launched during the COVID pandemic, **has been a beacon of hope, providing financial assistance and expanding market reach**.

Significant achievements of the scheme

- **57.83 lakh street vendors benefitted**, 80.77 lakh loans sanctioned, and 76.22 lakh loans worth Rs. 10,058 crores disbursed.

Notable statistics

- **45% of loans received by women street vendors**, 72% of beneficiaries from marginalized sections.

Zero Waste Street Food Festival

- The festival is recognized as the first 'Zero Waste Street Food Festival' in India.

NASVI's Initiatives and Training Programs

- NASVI's efforts were appreciated in providing training to 1,50,000 street vendors in food safety and hygiene.
- These institutes will focus on culinary skills, food safety, and hygiene.

GS III

6. Indian Navy unveils new epaulettes for admirals - The Hindu

Relevance: Statutory, regulatory and various quasi-judicial bodies.

News:

- the Navy unveiled the new design of Admirals' epaulettes, with the octagon in the new design, drawn from the naval ensign

Prelims Takeaway

- INS Vikrant
- Chhatrapati Shivaji

Key Highlights

- It was **inspired from rajmudra of Chhatrapati Shivaji** in what it said is the "true reflection of our rich maritime heritage"
- It reiterates the "resolve to do away with Ghulami ki Maansikta."
- The Navy is also **set to rename some of the ranks from the British nomenclature** to reflect an Indian connection.
- Adoption of the new design reaffirms our commitment to the two pillars of Panch Pran - Virasat Par Garv & Ghulami ki Mansikta se Mukti,"

- In September 2022 during the commissioning of the **first indigenous aircraft carrier INS Vikrant**, Prime Minister unveiled a new Naval ensign.



7. Core sectors' growth skids to 6-month low in November - The Hindu/ Nov core sector growth falls to 6-month low - Indian Express

Relevance: Economy

News:

- India's **eight core sectors** recorded a growth rate of 7.8% in November, marking a **six-month low**.
- The **Index of Core Industries (ICI)** declined by 3.34% from October levels, reaching its lowest point since March 2023.
- Reasons for Slowdown:** Base effects from the previous year, coupled with a slowdown in housing.

Prelims Takeaway

- Index of Eight Core Industries (ICI)
- Index of Industrial Production (IIP)

Slowing core

Output from eight core sectors grew 7.8% in November compared with 12% in October

■ Crude oil slipped back into contraction in Nov., sliding 0.4%

■ Fertilizer output grew 3.4%, the slowest in 3 months

■ Natural gas output growth slowed to 7.6%



■ Power generation growth slowed to 5-month low of 5.6% in November

Index of Eight Core Industries (ICI)

- It is a **production volume index** that measures the **collective** and **individual** production performances of **eight selected core industries**.
- **Core Industries:** Natural Gas, Coal, Refinery Products, Crude Oil, Cement, Electricity, Steel and Fertilizers.
- Termed as the core industries owing to their **strong impact on the general economic activities** and the other industrial activities.
- The calculation of the Index is done by using the **Laspeyres formula**.
- They comprise a total of **40.27%** of the total weight of the overall items that are included in the **Index of Industrial Production (IIP)**.
- The new IIP series has revised the **base year** for the ICI to **2011-12** from the initial base of 2004-05.
- **Published** by the **Office of the Economic Adviser (OEA)**, Ministry of Commerce and Industry.

8. New Android malware can steal your password by disabling fingerprint and face unlock - Indian Express

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

Prelims Takeaway

- Chameleon Trojan
- Malware

News:

- Cyber Security researchers recently discovered an updated version of the '**Chameleon Trojan**' malware that poses a threat to **Android devices**.

Malware Characteristics

- Chameleon Trojan **attaches itself to legitimate Android apps** like Google Chrome to evade detection.
- It **operates in the background**, compromising the security of the device.
- It is designed to **disable biometric authentication methods** such as fingerprint and face unlock to sneakily **access sensitive information**, especially PINs.
- It is reported to be **undetectable during runtime**, enabling it to bypass Google Protect alerts and security software on the device.
- This stealthy approach allows the Trojan to operate without any worries, evading immediate countermeasures.

Attack Mechanism

- Chameleon Trojan **steals on-screen content**, gains additional permissions, and can use gestures to capture PINs and passwords entered by users to unlock the device.
- The stolen PIN is then used to **unlock the device in the background**, allowing the theft of sensitive information such as credit card details and login credentials.
- It collects information on users' app usage habits to launch attacks **when the device is least likely to be in use**.

Preventive Measures

- Avoid installing Android apps from **unofficial sources**.
- **Disable the 'Accessibility service'** for unknown apps to prevent Chameleon Trojan from bypassing security mechanisms.
- **Running regular security scans** and **keeping Google Play Protect enabled** to enhance device security.

9. Researchers develop 'electronic soil' to enhance crop growth - Indian Express

Relevance: Science and Technology- developments and their applications and effects in everyday life.

Prelims Takeaway

- eSoil
- Hydroponics

News:

- Recently, a study introduced a newly developed **eSoil** that **enhances root systems** and promotes **50% more growth in barley seedlings**.

Hydroponics and eSoil

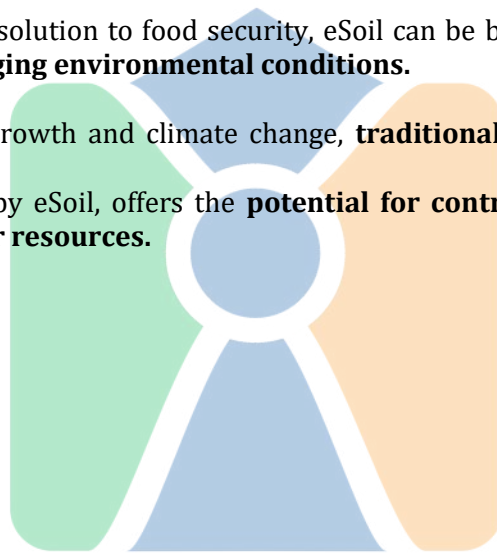
- Hydroponics is a technique for **growing plants without soil**, utilizing water-based nutrient solutions or alternative substrates like coconut coir.
- eSoil, made of **cellulose** and the **conductive polymer PEDOT**, is tailored for hydroponic cultivation.
- eSoil is a **low-power bioelectronic growth substrate** that can electrically stimulate the root system and growth environment of plants.
 - Traditional hydroponic systems often use **non-biodegradable mineral wool** produced through **energy-intensive processes**.
- Its active material is an **organic mixed-ionic electronic conductor**.

Advantages of eSoil

- Unlike previous high-voltage root stimulation methods, eSoil achieves similar effects with significantly **lower energy consumption** and **no high-voltage danger**.
- **Barley seedlings show better growth rates** in hydroponics due to electrical stimulation provided by eSoil.
- The study suggests that eSoil enhances the **processing of nitrogen in seedlings**, contributing to more effective growth.
- While not seen as a sole solution to food security, eSoil can be beneficial in **regions with limited arable land** and **challenging environmental conditions**.

Potential Impact

- With global population growth and climate change, **traditional agricultural methods may not meet food demands**.
- Hydroponics, facilitated by eSoil, offers the **potential for controlled food production** in urban environments **with fewer resources**.



Mentorship
India

Editorials, Gists and Explainers

10. A call for disability inclusion that must be heeded - The Hindu

Relevance: Social

Context:

- Reflecting on the **International Day for Persons with Disabilities** (December 3), the United Nations emphasizes the importance of **transformative solutions in neuropsychiatry** to reduce disability and achieve inclusive development.

Scope of Neuropsychiatric Disorders

- Neuropsychiatric disorders span various stages of life, including
 - childhood (autism, ADHD, intellectual disability)
 - adolescence and adulthood (anxiety, depression, addiction, schizophrenia)
 - old age (neurodegenerative conditions like Alzheimer's and Parkinson's)

Rehabilitation Needs

- The World Health Organization notes that 2.41 billion individuals could benefit from rehabilitation, contributing to 310 million Years of Living with Disabilities (YLD).
- Rehabilitation, often under-resourced, is crucial but not prioritized due to its perception as a disability-specific service.

Interconnected Neurology and Psychiatry

- The continuum of needs between neurology and psychiatry necessitates **holistic rehabilitation services** addressing a wide spectrum of neurological and mental health issues.
- Rehabilitation services should be multidisciplinary, involving professionals such as physical and occupational therapists, speech and language therapists, and psychological therapists.

Scientific Advances in Neuropsychiatry

- Non-invasive brain stimulation (NIBS) procedures prove useful in treating various conditions.
- It includes Repetitive Transcranial Magnetic Stimulation (rTMS) and Functional Magnetic Stimulation (FMS)
- Transcranial electrical stimulation (TES) and transcutaneous auricular vagus nerve stimulation (tA-VNS) are emerging as promising treatments for memory, cognition, mood disorders, and post-COVID-19 symptoms.

Collaboration and Disability Inclusion

- With one billion people with disabilities globally, collaboration between governments, public and private sectors is crucial for finding innovative solutions and achieving disability inclusion.
- The United Nations' call for disability inclusion aligns with the 2030 Agenda for Sustainable Development's promise to leave no one behind.

Conclusion

- The focus on innovative solutions in neuropsychiatry is **vital for improving the outcomes and quality of life** for individuals with disabilities across various stages of life.
- **Collaboration** and a **multidisciplinary approach** are essential to address the diverse needs of this population.

11. ULFA peace accord: history of its 44-year-long insurgency, peace talks - Indian Express

Relevance: Security challenges and their management in border areas – linkages of organized crime with terrorism.

Context:

- The pro-talks faction of the **United Liberation Front of Asom (ULFA)** recently signed a historic **tripartite peace deal** with the Government of India and the state government of Assam.

Assam Accord and ULFA's Formation

- Assamese people have their own, unique culture and language, and a strong sense of identity.
- However, the indigenous population started to feel insecure due to economic changes and the influx of migrants, especially after Partition.
- The Assam Accord of 1985 aimed to address concerns related to foreigners in Assam, following a six-year mass movement.
- ULFA was formed in 1979 by radical thinkers seeking a sovereign Assamese nation through armed struggle against the Indian state.

Four Decades of Conflict

- ULFA's armed struggle led to kidnappings, extortion, executions, bomb blasts, and significant loss of life in Assam.
- The Indian state responded with operations, arrests, and the imposition of laws like AFSPA, declaring Assam a "disturbed area."

External Support and Global Links

- ULFA has survived with alleged support from outside India, maintaining camps in Myanmar and previously in Bangladesh and Bhutan.
- The outfit has links to other insurgent groups and Islamic terror outfits.
- It also has links to Pakistan's Inter Services Intelligence (ISI), which has reportedly trained ULFA insurgents.

Efforts Towards Peace

- In 2005, ULFA formed the People's Consultative Group (PCG) for talks, but the outfit later walked out, renewing violence.
- Some ULFA commanders pursued peace talks from 2008, leading to the formation of a pro-talks faction.
- The faction submitted a 12-point charter of demands in 2012, and peace talks culminated in the recent tripartite peace agreement.

Future Challenges

- The peace deal is seen as a positive step, but its success depends on the government's commitment.
- The deal raises questions about the role of the anti-talks faction, who insists on Assam's sovereignty.
- While the government sees it as a "complete solution," uncertainties remain regarding the implementation and inclusivity of the peace agreement.

12. First, Don't Panic - Indian Express

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

Context:

- The public discourse on technology governance often emphasizes the **lag in regulation and policy** compared to the **pace of innovation**.
- The launch of OpenAI's **Large Language Model (LLM) ChatGPT** in November 2022 marked a significant disruption in the technology space, leading to the **democratization of advanced AI**.

AI's Impact and Dichotomy

- AI, particularly LLMs like ChatGPT, showcases specific advantages, such as advanced gene sequencing and virtual assistants.
- However, they also showcase perceived dangers that range from doomsday scenarios to concerns about societal impacts.
- The dichotomy arises from developers having a better understanding of AI capabilities than its broader societal impacts.

Threats to White-Collar Jobs

- Unlike previous disruptions that threatened manufacturing jobs, the current AI wave poses a threat to white-collar jobs relying on intellectual and cognitive abilities.
- This shift could contribute to heightened concerns and anxieties about AI's impact on professions such as law, medicine, arts, and writing.

Challenges and Regulatory Response

- Panic around AI poses twin dangers viz.
 - a regulatory response that stifles innovation and the potential benefits of AI
 - the possibility of incremental harm outweighing the benefits over time
- Issues like plagiarism, authorship, and copyright are emerging concerns, with ongoing litigation cases such as The New York Times against OpenAI.

Privacy and Human Rights Implications

- The use of machine learning software for surveillance, facial recognition, and predictive policing raises significant concerns about privacy and human rights.
- Society needs to take a proactive role in driving technology, rather than letting technology shape societal dynamics.

Quick Look

1. Index of Industrial Production

- IIP is an indicator that measures the changes in the volume of production of industrial products during a given period.
- It is a composite indicator that measures the growth rate of industry groups
 - The industry groups that it measures are classified as
 - Broad sectors like manufacturing, mining, and electricity.
 - Use-based sectors like capital goods, basic goods, intermediate goods, infrastructure goods, consumer durables, and consumer non-durables.
- It is used by government agencies including the Ministry of Finance, the Reserve Bank of India, etc, for policy-making purposes.
- It is compiled and published monthly by the National Statistical Office (NSO), Ministry of Statistics and Programme Implementation.
- Base Year for IIP is 2011-2012.

2. James Webb Space Telescope

- The telescope is the result of an international collaboration between NASA, the European Space Agency (ESA) and the Canadian Space Agency which was launched in December 2021.
- Objective: It will examine every phase of cosmic history, from the Big Bang to the formation of galaxies, stars, and planets to the evolution of our own Solar System.
- It is currently at the Sun-Earth L2 Lagrange point
- It's the largest, most powerful infrared space telescope ever built.
- It's the successor to the Hubble Telescope.
- It can see backwards in time to just after the Big Bang by looking for galaxies that are so far away that the light has taken many billions of years to get from those galaxies to our telescopes.
- It will focus on four main areas viz. the first light in the universe, the assembly of galaxies in the early universe, the birth of stars and protoplanetary systems, and planets (including the origins of life).

3. Financial Intelligence Unit India

- Set up in 2004, it is the central national agency responsible for receiving, processing, analyzing and disseminating information relating to suspect financial transactions.
- It is an independent body reporting directly to the Economic Intelligence Council (EIC) headed by the Finance Minister.
- Functions
 - Acts as the central reception point for receiving Cash Transaction reports (CTRs), Non-Profit Organisation Transaction Report (NTRs), Cross Border Wire Transfer Reports (CBWTRs), Reports on Purchase or Sale of Immovable Property (IPRs) and Suspicious Transaction Reports (STRs) from various reporting entities.
 - Analyzes received information in order to uncover patterns of transactions suggesting suspicion of money laundering and related crimes.
 - Shares information with national intelligence/law enforcement agencies, national regulatory authorities and foreign Financial Intelligence Units.
 - Establishes and maintains a national database on the basis of reports received from reporting entities.
 - Coordinates and strengthens collection and sharing of financial intelligence through an effective national, regional and global network to combat money laundering and related crimes.
 - Monitors and identifies strategic key areas on money laundering trends, typologies and developments.

4. Mian Tansen

- He was a prominent Indian classical music composer, musician and vocalist, known for a large number of compositions.
- He was also an instrumentalist who popularised and improved the plucked rabab (of Central Asian origin).
- He was among the Navaratnas (nine jewels) at the court of the Mughal Emperor Jalal ud-din Akbar.
- Akbar gave him the title 'Mian', an honorific, meaning learned man.
He is given credit for introducing some famous ragas, Miyan ki Malhar, Miyan ki Todi and Darbari.

5. Organised Crime and Corruption Reporting Project (OCCRP)

- The Organized Crime and Corruption Reporting Project is a global network of investigative journalists with staff on six continents.
- Founded in 2006, it specializes in organized crime and corruption.
- It publishes its stories through local media and in English and Russian through its website.
- The entity was involved in the coverage of Pegasus spyware as well as Panama Papers leak.
- The OCCRP conducted research and published a report on the Adani Group (AG).

6. Buddhism

- It started in India over 2,600 years ago as a way life that had a potential of transforming a person.
- It is one of the important religions of South and South-Eastern Asian countries.
- The religion is based upon the teachings, life experiences of its founder Siddhartha Gautam, born in circa 563 BCE.
- He was born into royal family of Sakya clan who ruled from Kapilvastu, in Lumbini which is situated near the Indo-Nepal Border.
- At the age of 29, Gautama left home and rejected his life of riches and embraced a lifestyle of asceticism, or extreme self-discipline.
- After 49 consecutive days of meditation, Gautama attained Bodhi (enlightenment) under a pipal tree at Bodhgaya, a village in Bihar.

7. National Association of Street Vendors of India

- NASVI is an organization working for the protection of the livelihood rights of thousands of street vendors across the country.
- The main objective was to bring together the street vendor organizations in India so as to collectively struggle for macro-level changes.
- The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 was enacted to regulate street vendors in public areas and protect their rights.
- The Act defines a "street vendor" as a person engaged in vending of articles of everyday use or offering services to the general public, in any public place or private area,
 - from a temporary built-up structure or by moving from place to place.

Prelims Track Question

Q1. Consider the following statements regarding Jainism

1. Tirthankaras in Jainism are spiritual teachers who have attained enlightenment and guide others on the path of salvation.
2. Ahimsa is a fundamental principle in Jainism, emphasizing non-violence towards all living beings.
3. Mahavira is considered the founder of Jainism, and his teachings form the core of the Jain philosophy.

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

- A. Only one
- B. Only two
- C. All three
- D. None

Q2. Consider the following statements regarding Article 200 of the Indian Constitution

1. Article 200 empowers the Governor of a state to grant pardons, reprieves, respites, or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offense against any law relating to matters to which the executive power of the state extends.
2. The Governor's powers under Article 200 are absolute and cannot be challenged or reviewed by any other authority.
3. The exercise of powers under Article 200 is not subject to judicial review, ensuring the Governor's autonomy in matters of pardons and reprieves.
4. The President of India can exercise similar powers at the national level under Article 72 of the Constitution.

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

- A. Only one
- B. Only two
- C. Only three
- D. All four

Q3. Consider the following statements regarding BRICS

1. BRICS is an acronym for an association of five major emerging national economies, specifically known for their significant influence on regional and global affairs.
2. The idea of BRICS was originally formulated as "BRIC" by economist Jim O'Neill in 2001, and South Africa joined the grouping later in 2010.
3. BRICS, generally seen as a counter to the Western-led global order
4. The addition of six nations including Ethiopia, Iran, Saudi Arabia, Egypt, and the United Arab Emirates was set to take effect from January 1, 2024.

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

- A. Only one
- B. Only two
- C. Only three
- D. All four

Q4. Consider the following statements regarding lithium and choose the correct answer using the codes given below:

1. Lithium is a chemical element with the symbol Li and atomic number 3.
2. The primary use of lithium is in the production of aluminum alloys, contributing to the lightweight and corrosion-resistant properties of the metal.
3. Lithium-ion batteries, widely used in portable electronic devices and electric vehicles, operate on the principle of reversible lithium-ion intercalation.
4. The largest known lithium reserves are found in Afghanistan, making it a significant global supplier of this essential metal.
5. Lithium is prescribed for certain medical conditions, and its compounds are used in the treatment of bipolar disorder.

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

- A. Only two
- B. Only three
- C. Only four
- D. All five

Q5. Consider the following statements regarding the Prime Minister Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi) Scheme

1. PM SVANidhi was launched to provide financial assistance and support to street vendors affected by the COVID-19 pandemic.
2. Under the scheme, street vendors are eligible to receive loans for their businesses, and a significant percentage of these loans have been disbursed to women vendors.
3. The PM SVANidhi Scheme is solely focused on providing financial aid, and it does not involve any training or skill development initiatives for street vendors.

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

- A. Only one
- B. Only two
- C. All three
- D. None

Q6. Consider the following statements regarding INS Vikrant

1. INS Vikrant is India's first indigenous aircraft carrier and was commissioned into the Indian Navy in 2023.
2. The construction of INS Vikrant began in 2009, and it is a part of India's efforts to enhance its maritime capabilities.
3. INS Vikrant is powered by nuclear propulsion, making it one of the few aircraft carriers in the world with nuclear capabilities.

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

- A. Only one
- B. Only two
- C. All three
- D. None

Q7. With reference to Index of Eight Core Industries (ICI), consider the following statements

1. It measures the collective production performances of eight selected core industries only.

2. Core industries comprise a whopping 75% of the total weight of the overall items that are included in the Index of Industrial Production (IIP).
3. The core industries include Natural Gas, Coal, Refinery Products, Crude Oil, Cement, Electricity, Steel and Fertilizers.
4. It is published by the National Statistical Office (NSO).

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

- A. Only one
- B. Only two
- C. Only three
- D. All four

Q8. Consider the following statements on Chameleon Trojan, seen in the news recently

1. It is a malware that primarily targets Android device users.
2. It has the ability to disable biometric authentication methods.
3. It launches attacks when the device is least likely to be in use.

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

- A. Only one
- B. Only two
- C. All three
- D. None

Q9. With reference to eSoil, consider the following statements

1. It is a bioelectronics growth substrate that electrically stimulates plant roots.
2. It is made of non-biodegradable mineral wool produced through energy-intensive processes.
3. It enhances the processing of nitrogen in seedlings, contributing to more effective growth.

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

- A. Only one
- B. Only two
- C. All three
- D. None

Q10. With reference to Right of Persons with Disabilities Act 2016, consider the following statements

1. It was passed to fulfill India's obligation to the United Nations Convention on the Rights of Persons with Disabilities.
2. Every child with benchmark disability between the age group of 6 and 14 years shall have the right to free education.
3. It covers 25 types of disabilities covering a range of physical, mental, intellectual, and sensory impairments.
4. It promotes a barrier-free environment and reasonable accommodation in workplaces and educational institutions.

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

- A. Only one
- B. Only two
- C. Only three
- D. All four

Q11. Consider the following statements with reference to the Armed Forces Special Powers Act

1. It gives the armed forces the power to maintain public order in "disturbed areas".

2. It allows the forces to arrest a person and enter and search premises without a warrant.

3. It gives the armed forces the authority to open fire after warning a person who is found to be in contravention of the law.

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

- A. Only one
- B. Only two
- C. All three
- D. None

Q12. Consider the following statements

1. SUVAS is an AI system that can assist in the translation of judgments into regional languages.

2. Watsonx.ai is an AI tool that helps in monitoring the Earth from space and measuring environmental changes.

Which of the statements given above is/are incorrect?

- A. Only 1
- B. Only 2
- C. Both 1 and 2
- D. Neither 1 nor 2

Prelims Track Answer

Answer 1 Option C is correct

Explanation

- Tirthankaras are revered spiritual teachers in Jainism who have achieved spiritual enlightenment and guide others on the path of liberation.
- They are considered role models for Jain followers. There are 24 Tirthankaras in Jain tradition, with the last one being Lord Mahavira. **Hence, statement 1 is correct.**
- Ahimsa, or non-violence, is a central tenet in Jainism. Jains believe in avoiding harm to all living beings, and this principle extends to thoughts, words, and actions. Ahimsa is one of the key virtues that Jains strive to cultivate in their lives. **Hence, statement 2 is correct.**
- Mahavira, also known as Vardhamana, is considered the 24th Tirthankara and the founder of Jainism. He was born in the 6th century BCE in present-day Bihar, India. Mahavira's teachings, known as Jain Agamas, emphasize the path of non-violence, truth, and asceticism as a means to attain spiritual liberation. **Hence, statement 3 is correct.**

Answer 2 Option B is correct

Explanation

- Article 200 of the Indian Constitution grants the Governor of a state the power to grant pardons, reprieves, respites, or remissions of punishment, or to suspend, remit, or commute the sentence of any person convicted of any offense against any law relating to matters to which the executive power of the state extends. **Hence, statement 1 is correct.**
- The Governor's powers under Article 200 are not absolute.
- The exercise of these powers is subject to the Governor's discretion, but it is not immune to judicial review. Courts can examine and intervene if there is an abuse of the discretionary powers granted under Article 200. **Hence, statement 2 is incorrect.**
- The exercise of powers under Article 200 is subject to judicial review.
- The courts can intervene if the Governor's decision is arbitrary, discriminatory, or not in accordance with the principles of natural justice. **Hence, statement 3 is incorrect.**

- The President of India can exercise similar powers at the national level under Article 72 of the Constitution.
- Article 72 deals with the power of the President to grant pardons, reprieves, respites, or remissions of punishment or to suspend, remit, or commute the sentence of any person convicted of any offense **Hence, statement 4 is correct.**

Answer 3 Option D is correct

Explanation

- BRICS refers to the association of five major emerging national economies: Brazil, Russia, India, China, and South Africa. These countries are known for their substantial influence on regional and global affairs, particularly in terms of economic development and geopolitical considerations. **Hence, statement 1 is correct.**
- The idea of BRICS was initially formulated as "BRIC" by economist Jim O'Neill in 2001. It originally included Brazil, Russia, India, and China. South Africa later joined the grouping in 2010, leading to the acronym BRICS. **Hence, statement 2 is correct.**
- BRICS, generally seen as a counter to the Western-led global order, declared to add six new members. **Hence, statement 3 is correct.**
- The announcement of the addition of six nations including Argentina, Ethiopia, Iran, Saudi Arabia, Egypt, and the United Arab Emirates was set to take effect from January 1, 2024. **Hence, statement 4 is correct.**

Answer 4 Option B is correct

Explanation

- Lithium is a chemical element with the symbol Li and atomic number 3. It is classified as an alkali metal and is known for its soft, silvery-white appearance. **Hence, statement 1 is correct.**
- The primary use of lithium is not in the production of aluminum alloys. Instead, lithium is best known for its use in rechargeable batteries, particularly lithium-ion batteries, due to its high energy density.
- This property makes it a crucial component in the manufacturing of batteries for various applications. **Hence, statement 2 is incorrect.**

- Lithium-ion batteries operate on the principle of reversible lithium-ion intercalation.
- During the battery's charging and discharging cycles, lithium ions move back and forth between the positive and negative electrodes, allowing for the storage and release of electrical energy. **Hence, statement 3 is correct.**
- The largest known lithium reserves are not found in Afghanistan. Chile has the largest lithium reserves globally and is a major producer, along with other countries like Australia, China, and Argentina. **Hence, statement 4 is incorrect.**
- Lithium is prescribed for certain medical conditions, and lithium compounds are used in the treatment of bipolar disorder. It has mood-stabilizing properties and is effective in managing the symptoms of bipolar disorder. **Hence, statement 5 is correct.**

Answer 5 Option A is correct**Explanation**

- The PM SVANidhi Scheme was indeed launched to provide financial assistance and support to street vendors who were adversely impacted by the economic challenges posed by the COVID-19 pandemic.
- The aim was to empower street vendors and make them self-reliant. **Hence, statement 1 is correct**
- Street vendors under the PM SVANidhi Scheme are eligible to receive working capital loans for their businesses.
- A noteworthy aspect is that a significant percentage of these loans, approximately 45%, has been disbursed to women street vendors. This emphasizes the inclusivity and gender-sensitive nature of the scheme. **Hence, statement 2 is correct**
- The PM SVANidhi Scheme is not solely focused on providing financial aid; it has a broader scope
- While it does offer working capital loans, the scheme also incorporates training and skill development initiatives for street vendors.
- This multifaceted approach aims to enhance the capabilities of street vendors, promoting sustainable and empowered livelihoods. **Hence, statement 3 is incorrect**

Answer 6 Option B is correct**Explanation**

- INS Vikrant is India's first indigenous aircraft carrier, but as of my last knowledge update in January 2022, it had not been commissioned.
- The commissioning status may have changed after that. It is essential to verify the latest information to confirm its commissioning status. **Hence, statement 1 is INcorrect**
- The construction of INS Vikrant began in 2009 at the Cochin Shipyard, and it is indeed a part of India's efforts to enhance its maritime capabilities. It is a significant project aimed at bolstering the Indian Navy's ability to operate aircraft carriers. **Hence, statement 2 is correct**
- The statement is incorrect in suggesting that INS Vikrant has nuclear capabilities. **Hence, statement 3 is INcorrect**

Answer 7 Option A is correct**Explanation**

- Index of Eight Core Industries (ICI) is a production volume index that measures the collective and individual production performances of eight selected core industries. **Hence, statement 1 is incorrect.**
- Core Industries: Natural Gas, Coal, Refinery Products, Crude Oil, Cement, Electricity, Steel and Fertilizers. **Hence, statement 3 is correct.**
- Termed as the core industries owing to their strong impact on the general economic activities and the other industrial activities.
- The calculation of the Index is done by using the Laspeyres formula.
- They comprise a total of 40.27% of the total weight of the overall items that are included in the Index of Industrial Production (IIP). **Hence, statement 2 is incorrect.**
- The new IIP series has revised the base year for the ICI to 2011-12 from the initial base of 2004-05.
- Published by the Office of the Economic Adviser (OEA), Ministry of Commerce and Industry. **Hence, statement 4 is incorrect.**

Answer 8 Option C is correct**Explanation**

- Cyber Security researchers recently discovered an updated version of the 'Chameleon Trojan' malware that poses a threat to Android devices. **Hence, statement 1 is correct.**

- Chameleon Trojan attaches itself to legitimate Android apps like Google Chrome to evade detection.
- It operates in the background, compromising the security of the device.
- It is designed to disable biometric authentication methods such as fingerprint and face unlock to sneakily access sensitive information, especially PINs. **Hence, statement 2 is correct.**
- It is reported to be undetectable during runtime, enabling it to bypass Google Protect alerts and security software on the device.
- It collects information on users' app usage habits to launch attacks when the device is least likely to be in use. **Hence, statement 3 is correct.**

Answer 9 Option B is correct

Explanation

- eSoil, made of cellulose and the conductive polymer PEDOT, is tailored for hydroponic cultivation.
- eSoil is a bioelectronic growth substrate that can electrically stimulate the root system and growth environment of plants. **Hence, statement 1 is correct.**
- Traditional hydroponic systems often use non-biodegradable mineral wool produced through energy-intensive processes.
- Unlike previous high-voltage root stimulation methods, eSoil achieves similar effects with significantly lower energy consumption and no high-voltage danger. **Hence, statement 2 is incorrect.**
- Barley seedlings show better growth rates in hydroponics due to electrical stimulation provided by eSoil.
- The study suggests that eSoil enhances the processing of nitrogen in seedlings, contributing to more effective growth. **Hence, statement 3 is correct.**
- While not seen as a sole solution to food security, eSoil can be beneficial in regions with limited arable land and challenging environmental conditions.

Answer 10 Option B is correct

Explanation

- Under the Right of Persons with Disabilities Act 2016, disability has been defined based on an evolving and dynamic concept.
- The Act provides an expanded and comprehensive definition of disabilities, covering a range of physical, mental, intellectual, and sensory impairments.
- The types of disabilities have been increased from 7 to 21. **Hence, statement 3 is incorrect.**
- In addition, the Government has been authorized to notify any other category of specified disability.
- It increases the quantum of reservation for people suffering from disabilities from 3% to 4% in government jobs and from 3% to 5% in higher education institutes.
- Every child with benchmark disability between the age group of 6 and 18 years shall have the right to free education. **Hence, statement 2 is incorrect.**
- It promotes a barrier-free environment and reasonable accommodation in workplaces and educational institutions. **Hence, statement 4 is correct.**
- The Chief Commissioner for Persons with Disabilities and the State Commissioners will act as regulatory bodies and Grievance Redressal agencies, monitoring implementation of the Act.
- A separate National and State Fund will be created to provide financial support to the persons with disabilities.
- Special Courts will be designated in each district to handle cases concerning the violation of rights of PwDs.
- It was passed to fulfill India's obligation to the United Nations Convention on the Rights of Persons with Disabilities, which India ratified in 2007. **Hence, statement 1 is correct.**

Answer 11 Option C is correct

Explanation

- The Armed Forces Special Powers Act, 1958 is an act of Parliament that gives the armed forces the power to maintain public order in "disturbed areas". **Hence, statement 1 is correct.**
- The power to declare any territory "disturbed" initially lay with the states, but passed to the Centre in 1972.
- It gives the armed forces the authority to use force or even open fire after warning a person who is found to be in contravention of the law. **Hence, statement 3 is correct.**
- The Act also allows the forces to arrest a person and enter and search premises without a warrant. **Hence, statement 2 is correct.**

- It also protects security forces from legal proceedings unless cleared by the centre.
- The Act applies not only to the three armed forces but also to paramilitary forces such as the Central Reserve Police Force (CRPF) and the Border Security Force.

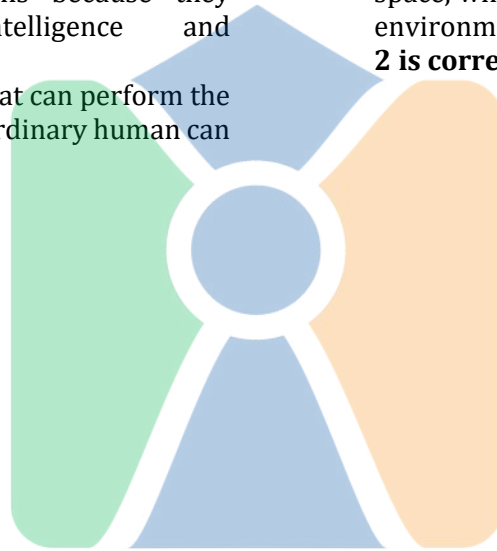
Answer 12 Option D is correct

Explanation

- AI is the ability of a computer, or a robot controlled by a computer to do tasks that are usually done by humans because they require human intelligence and discernment.
- Although there is no AI that can perform the wide variety of tasks an ordinary human can

do, some AI can match humans in specific tasks.

- SUVAS (Supreme Court Vidhik Anuvaad Software) is an AI system that can assist in the translation of judgments into regional languages. **Hence, statement 1 is correct.**
- At the COP28, NASA and IBM introduced an AI tool called watsonx.ai on the open-source AI platform Hugging Space.
- The tool helps users monitor Earth from space, while also estimating past and future environmental changes. **Hence, statement 2 is correct.**



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+91 9999 057869
www.mentorshipindia.com

A-92, Third Floor, Hari Nagar
Delhi - 110064

 @mentorship.india