

DAILY MCQs COMPILATION

with

EXPLANATIONS

February 2023

NEXT IAS

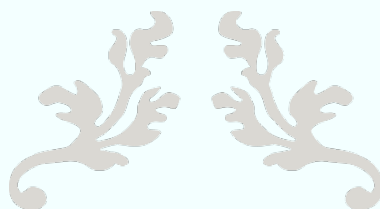


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HISTORY & CULTURE

1. Which of the following classical dance forms of India originated in Kerala?

1. Bharatanatyam
2. Kathakali
3. Kuchipudi
4. Mohiniattam

Choose the correct answer using the codes given below:

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

2. Consider the following statements regarding Hathigumpha Inscription:

1. It is a seventeen-line inscription in Sanskrit language written in Brahmi script.
2. It was commissioned by a Buddhist king.
3. It contains the earliest evidence referring to confederacy of tamil states.
4. It consists of a list of public works and infrastructure projects completed at state's expense.

Which of the above given statements are true?

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

3. Consider the following statements regarding a medieval Indian ruler:

1. He is credited to have founded the Maratha Empire in the 17th century.
2. He had a council of ministers or Asht Pradhan to advise him on the matters of the state.
3. His army was adept in what is known as 'Guerrilla warfare'.

The statements given above are related to which of the following kings?

- (a) Peshwa Bajirao I
- (b) Chhatrapati Shivaji
- (c) Jyotirao Phule
- (d) Rajarshi Shahu

4. With reference to the Traditional Dances of India, consider the following pairs:

Traditional Dance	State
1. Gusadi	Telangana
2. Harul Dance	Sikkim
3. Tamang Selo	Assam
4. Panthi Dance	Chhattisgarh

How many pairs given above are correctly matched?

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

5. Lavani dance, recently mentioned in the news, is prevalent in which of the following states?

- (a) Tamil Nadu
- (b) Karnataka
- (c) Madhya Pradesh
- (d) Maharashtra

6. He was born in Tankara, Gujarat as 'Mool Shankar' to a brahman family. American Spiritualist Andrew Jackson Davis called him "Son of God". He supported the idea of the Shuddhi movement.

The above description mentions which of the following personalities?

- (a) Vallabhacharya
- (b) Raja Ram Mohan Roy
- (c) Dayanand Saraswati
- (d) Ishwar Chandra Vidyasagar

7. Which of the following statements is/are correct about reforms regarding Swami Dayanand Saraswati?

- 1. He opposed the multiplicity of castes.
- 2. He stressed one God and rejected idol worship.

Choose the correct answer from the options given below

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

8. Which of the following statements is/are correct regarding the Grishneshwar temple?

- 1. Grishneshwar Temple is dedicated to Lord Shiva that is referenced in the Shiva Purana.
- 2. It is an important pilgrimage site considered as the twelfth Jyotirlinga.
- 3. It is an illustration of the maratha temple architectural style and structure.

Choose the correct answer from options given below

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

9. Consider the following statements:

- 1. Sursinagar is an instrument made of brass or bronze having 8 strings.
- 2. Karakattam is an ancient folk dance of Andhra Pradesh.
- 3. In Karakattam, performers wear saris and dance with a pot (karakam) on their head to invoke Mariamman, the goddess of rain.

Which of the statements given above are **not** correct?

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

10. Consider the following statements:

- 1. Khondalite stones were widely used in ancient temple complexes in India.
- 2. Archaeological Survey of India works as per the provisions of the Ancient Monuments and Archaeological Sites and Remains Act, 1958.

Which of the statements given above is/are correct?

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

11. Famous temple town of shringeri is located on which of the following rivers?

- (a) Ghataprabha
- (b) Malaprabha
- (c) Tunga
- (d) Bhima

12. Consider the following statements with reference to the Vijayanagara empire:

- 1. It was based in the Deccan, in peninsular and southern India.
- 2. It was founded by Harihara of the Tuluva dynasty.
- 3. The empire is generally considered to have reached its peak during the rule of Krishna Deva Raya of the Sangama Dynasty.

Which of the statements given above are **not** correct?

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

13. He was a mystic poet-saint of the Bhakti Movement from the 15th and 16th centuries. The Sikh scripture, Guru Granth Sahib, contains forty-one of his devotional songs and poems. Mirabai was his pupil. Chief Architect of our Constitution, Dr. B.R. Ambedkar embodied the Constitutional principles around the values expressed by him.

He was

- (a) Sri Ramanujacharya
- (b) Chaitanya Mahaprabhu
- (c) Sant Ravidas
- (d) Vallabhacharya

14. “Theory of alienation” which describes the estrangement of people from aspects of their human nature as a consequence of the division of labor and living in a society of stratified social classes was given by which of the following?

- (a) Adam Smith
- (b) Sri Aurobindo
- (c) Karl Marx
- (d) Noam Chomsky

15. Consider the following pairs:

	<i>Term</i>		<i>Meaning</i>
1.	Khatna	-	Arabic academy
2.	Aljamea-tus-Saifiyah	-	Female Genital Mutilation
3.	Al-Dai-Al-Mutlaq	-	Leader (Dawoodi Bohras)

How many pairs given above are ***not correctly*** matched?

- (a) Only one pair
- (b) Only two pairs
- (c) All three pairs
- (d) None of the above

EXPLANATIONS

1. (c)

Option c is correct: Bharatanatyam is a dance form of Tamil Nadu. Kathakali or 'story play' took shape in Kerala in southern India in the seventeenth century under the patronage of the prince of Karnataka, who wrote plays for performance drawn from the epic Ramayana in Malayalam. Kuchipudi originated from Andhra Pradesh, where it grew largely as a product of Bhakti movement beginning in the 7th Century AD and derives its name from the village Kuchelapuram.

Mohiniattam belongs to Kerala in southern India and takes its name from the mythic enchantress Mohini. It is a dance of feminine grace, and has grown out of performances connected with Kerala's temples.

2. (c)

Statement 1 is not correct: The Hathigumpha Inscription is a seventeen line inscription in Prakrit language incised in Brahmi script in a cavern called Hathigumpha in Udayagiri hills, near Bhubaneswar in Odisha

Statement 2 is not correct: Hathigumpha Inscription presents a biographical sketch of a Jain king Kharavela in the eastern region of ancient India

Statement 3 is correct: it recalls the breaking up of the confederacy of Tamil kings as one of the king's victories.

Statement 4 is correct: Hathigumpha inscription consists of a list of public works and infrastructure projects completed at state's expense.

3. (b)

Chatrapati Shivaji

- Chhatrapati Shivaji is one of the most revered rulers in India and is credited to have founded the Maratha Empire in the 17th century.
- **Administration & civil rule:**
 - Shivaji Maharaj not only constructed a **well-structured administrative organisation** but also made a **liberal civil rule** for people living in the area.
 - He assigned separate responsibilities to the ministers and each of them was made responsible for his work to him.
 - He had a **council of ministers (Asht Pradhan)** to advise him on the matters of the state but he was not bound by it.
- **Shivaji's famous guerilla tactics:**
 - Shivaji's armed forces **had some major limitations**.
 - He did not have the man or horsepower compared to most of his enemies, especially during the early stages of his life.
 - This meant that in conventional battle, he would have seldom stood a chance against his foes.
 - **Guerilla tactics:** His men would travel in small, highly mobile and heavily armed attachments, wreak havoc in the often sluggish Mughal or Adil Shahi armies, loot supplies and treasure, and quickly retreat.

4. (b)

- **Pair 1 is correctly matched:** Gusadi is a traditional dance form of Telangana.
- **Pair 2 is not correctly matched:** Harul Dance belongs to Uttarakhand.
- **Pair 3 is not correctly matched:** Tamang Selo belongs to Sikkim.
- **Pair 4 is correctly matched:** Panthi Dance is a traditional dance form of Chattisgarh.

5. (d)

Option d is correct: Lavani is a popular folk dance of Maharashtra. Derived from 'lavanya' or beauty, Lavani is a traditional folk art form in which women dancers wearing **nine-yard-long sarees in bright colours**, make-up, and **ghunghroos** (ankle bells) perform on **dholak beats** on a stage before a live audience. It attained **popularity in the Peshwa era in the 18th century** with performances being held in front of kings and for the entertainment of tired soldiers resting during breaks in fighting.

- Several sub-genres of Lavani exist, of which the most popular is the **Shringarik (erotic)** kind. With passage of time the art became sanitised with later performers choosing indirect references to erotic meanings over direct gestures and overt lyrics.

6. (c)

Recently, the Prime Minister paid tribute to Maharishi Dayanand Saraswati on his 200th birth Anniversary.

About Maharishi Dayanand Saraswati

- He was born in Tankara, Gujarat as 'Mool Shankar' to a brahman family. He made Swami Virajananda his Guru. Maharishi Dayanand Saraswati, born on February 12, 1824, was a social reformer who founded Arya Samaj to counter the prevalent social inequities.
- American Spiritualist Andrew Jackson Davis called Maharishi Dayanand "Son of God". Through the organisation of Arya Samaj, he was among the first to advocate 'conversion' into the Hindu fold – he supported the idea of Shuddhi, to bring back Islamic or Christian converts into Hinduism.

7. (c)

Statement 1 is correct: Swami Dayanand Saraswati opposed the multiplicity of castes. He also established Vedic schools for the education of girls and boys of all castes. The students of these schools were given free books, clothing, lodging and food, and were taught the Vedas and other ancient scriptures.

Statement 2 is correct: Swami Dayanand Saraswati stressed on One God and rejected idol worship. He also advocated against the extolled position of priests in Hinduism.

8. (d)

Statement 1 is correct: Grishneshwar Jyotirlinga Temple is dedicated to Lord Shiva that is referenced in the Shiva Purana.

Statement 2 is correct: It is an important pilgrimage site in the Shaiva tradition of Hinduism, which considers it as the twelfth Jyotirlinga (linga of light).

Statement 3 is correct: It is situated in the state of Maharashtra. This pilgrimage site is located in Ellora (also called Verul), less than a kilometer from Ellora Caves – a UNESCO World Heritage Site. The Grishneshwar temple is an illustration of maratha temple architectural style and structure.

- It is built of red rocks and is composed of a five-tier shikara.

9. (a)

Statement 1 is not correct: Sursingar is a stringed instrument made of ivory and wood. This traditional instrument is found in various parts of North India. The strings of the instrument are usually **four** in number and made of brass or bronze, and are plucked with a metal pick.

Statement 2 is not correct: Karakattam is an ancient folk dance of Tamil Nadu.

Statement 3 is correct: In Karakattam performers in colourful saris dance with a **pot (karakam) on their head** to invoke **Mariamman, the goddess of rain.**

10. (c)

Statement 1 is correct: Khondalite is a **foliated metamorphic rock**. In India, it is also called **Bezwada Gneiss** and **Kailasa Gneiss**. It was named after the **Khond tribe** of Odisha and Andhra Pradesh because well-formed examples of the rock were found in the inhabited hills of these regions of eastern India.

- Khondalite stones were widely used in **ancient temple complexes**, all the heritage projects in Puri will be developed by using the Khondalite stones to maintain the **Kalinga architecture style**.

Statement 2 is correct: ASI is the premier organization for the archaeological researches and protection of the cultural heritage of the nation under the Ministry of Culture.

- It regulates all archaeological activities in the country as per the provisions of the **Ancient Monuments and Archaeological Sites and Remains Act, 1958**. It also regulates the Antiquities and Art Treasure Act, 1972.

11. (c)

Option c is correct: Shringeri is in the Malnad Hills on the banks of River Tunga and is the first Matha established by Sri Adi Shankaracharya. The town also has many famous temples like vidyashankara and sharadamba.

12. (b)

In News: Salman Rushdie's latest work, "Victory City" is a fictionalised telling of the story of Vijayanagara, one of the richest and most powerful kingdoms in medieval India.

Statement is 1 correct: The **Vijayanagara empire** was based in the Deccan, in peninsular and southern India, from 1336 onwards. It is named after its capital city (now ruined) of Vijayanagara, in modern Karnataka, India.

Statements 2 and 3 are not correct: **Vijayanagara empire** was founded by **Harihara**, also known as Hakka, and his brother **Bukka Raya** of the **Sangama dynasty**

- It lasted from about 1336 to perhaps about 1660, though throughout its last century it was in a slow decline due to a massive and catastrophic defeat at the hands of an alliance of the sultanates, and the capital was taken and brutally razed, and looted.

- The empire is generally considered to have reached its peak during the rule of **Krishna Deva Raya (1509-1529) of the Saluva Dynasty**.
- He conquered or subjugated territories on the east of the Deccan that belonged previously to Orissa.

13. (c)

In News: The Prime Minister, Shri Narendra Modi has paid tributes to Sant Ravidas on his Jayanti.

- The day commemorates the birth of the famous Bhakti Movement saint.
- This year marks the 646th anniversary

Sant Ravidas was a mystic poet-saint of the Bhakti Movement from the **15th and 16th centuries**.

- His devotional songs and verses left an indelible mark on the Bhakti Movement.
- He was a disciple of Sant Kabir and the founder of the Ravidassia religion. Mirabai was his pupil.
- The Sikh scripture, Guru Granth Sahib, contains forty-one of his devotional songs and poems.
- The philosophy and values of Guru Ravidasji like social justice, equality, and fraternity have been imbued in our constitutional values.
 - o The **Chief Architect of our Constitution**, Dr. B.R. Ambedkar embodied the Constitutional principles around the values expressed by Guru Ravidasji.

14. (c)

Karl Marx's theory of alienation

- It describes the estrangement of people from aspects of their human nature as a consequence of the division of labor and living in a society of stratified social classes.

15. (b)

In News: A Constitution Bench of the Supreme Court referred to a larger Bench of nine judges, a series of petitions challenging the authority of Dawoodi Bohra community leaders to excommunicate their members.

- Prime Minister Narendra Modi inaugurated Dawoodi Bohra community's Arabic Academy at **Aljamea-tus-Saifiyah (The Saifia Academy)** in Mumbai.
 - o It is a world-class **Arabic academy** dedicated to producing graduates of the highest calibre.
- The Dawoodi Bohras are Shia Muslims whose **leader is known as the Al-Dai-Al-Mutlaq**. According to members of the community, there are around 1 million Dawoodi Bohras spread around the world.
- **Khatna (Female Genital Mutilation)** is a practice that involves altering or injuring the female genitalia for non-medical reason.

ECONOMY

1. Consider the following statements:
1. Unified Payment Interface (UPI) was developed by the National Payments Corporation of India in 2016.
 2. Recently, the UPI and Paynow were integrated for facilitating ease of doing business between India and Bangladesh.

Which of the statements given above is/are correct?

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

2. With reference to Vostro Accounts, sometimes mentioned in the news, consider the following statements:

1. Under this, the exchange rate between the currencies of the trading partner countries would be market-determined.
2. It can play an important role in making the country less vulnerable to external shocks.

Which of the statements given above is/are correct?

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

3. Consider the following statements regarding land monetisation in India:

1. Land Monetisation means transferring the revenue rights of the asset to a private player for a specified period of time.
2. The Pradhan Mantri Fasal Bima Yojana provides financial support to farmers who agree to monetize their land.
3. The monetization of land can lead to social and environmental consequences, such as displacement of communities and loss of natural resources.

Which of the above statements are correct?

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

4. Which of the following suggestions were given by the IMF in its “nine-point action plan for countries to treat crypto assets”?

1. Granting cryptocurrency legal status for better regulation of currency.
2. Establishing international collaborative arrangements to enhance supervision and enforcement of crypto asset regulations.

Select the correct answer using the code given below:

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

5. Which of the following statements is/are correct regarding the Marginal Cost of Funds Based Lending Rate (MCLR)?

- 1. It was instituted by RBI with effect from April 1, 2001.
- 2. It is the lowest interest rate that a bank or lender can offer.

Choose the correct answer from the options given below

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

6. With reference to Vivad Se Vishwas Scheme, consider the following statements:

- 1. It is for a one-time settlement of contractual disputes in which an arbitral award is under challenge.
- 2. It will cover all organisations where the central government has a shareholding of 50%.
- 3. The scheme will also cover selective Private entities for dispute resolution.

Which of the statements given above are correct?

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

7. Which of the following statements is/are correct regarding the Primary Agricultural Credit Societies (PACS)?

- 1. A village can have only one Primary Agricultural Credit Society
- 2. They are connected to the core banking system(CBS)
- 3. One of the most important functions of District Central Cooperative Banks is to provide funds to the Primary Agricultural Credit Societies.

Choose the correct answer from options given below

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

8. With reference to Additional Surveillance Mechanism (ASM) consider the following statements:

- 1. It was introduced in 2018 by the Securities and Exchange Board of India (SEBI) and Exchanges.
- 2. The main purpose is to alert and advise investors to be extra cautious while dealing in securities with surveillance concerns.
- 3. Securities under ASM shall be reviewed on a bi-monthly basis.

Which of the statements given above are correct?

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

9. Consider the following statements:

- 1. Coal is the most important fossil fuel in India which accounts for 90% of the country's energy needs.
- 2. Mahanadi Coalfields Ltd (MCL) contributes more than half of the total coal produced in India.

Which of the statements given above is/are correct?

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

10. With reference to National Payments Corporation of India (NPCI), consider the following statements:

- 1. It was established by the Reserve Bank of India (RBI) and Indian Banks' Association (IBA) in 2008.
- 2. It is a "Not for Profit" Company under the Companies Act.

Which of the statements given above is/are correct?

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

11. Consider the following statements:

- 1. The assessment and recommendations of the Economic survey are binding on the Budget formation.
- 2. In 2022, India was the second largest recipient of remittances in the world after China.

Which of the statements given above is/are correct?

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

EXPLANATIONS

1. (a)

Statement 1 is correct - UPI is a system that powers multiple bank accounts into a single mobile application merging several banking features, seamless fund routing & merchant payments into one hood. **It was developed by NPCI (National Payments Corporation of India) in 2016.**

Statement 2 is not correct - India's payment system **Unified Payments Interface (UPI)** and its equivalent network in Singapore called **PayNow**, were integrated to enable **faster remittances between the two countries at a competitive rate.**

2. (c)

Statement 1 is correct: A vostro account is an account that **domestic banks hold for foreign banks** in the former's domestic currency, in this case, the rupee.

Three important components of SRVA are:

- **Invoicing:** All exports and imports must be denominated and invoiced in INR.
- **Exchange Rate:** The exchange rate between the currencies of the trading partner countries would be **market-determined.**
- **Settlement:** The final settlement also takes place in **Indian National Rupee (INR).**

Statement 2 is correct: Vostro account would also reduce the need for holding foreign exchange reserves and dependence on foreign currencies, making the country less vulnerable to external shocks.

3. (c)

Statement 1 is correct: Land Monetisation means transferring the revenue rights of the asset (could be idle land, infrastructure, PSU) to a private player for a specified period of time.

- The government gets in return payment from the private entity, a share of the revenue generated from the asset, a promise of steady investment into the asset, and the title rights to the monetized asset.
 - **Statement 2 is not correct:** The Pradhan Mantri Fasal Bima Yojana provides crop insurance to farmers, **but it does not provide financial support to farmers who agree to monetize their land.**
 - **Statement 3 is correct:** The monetization of land can lead to social and environmental consequences, such as displacement of communities and loss of natural resources.
- The government needs to address these concerns of local communities, environmental activists, and other interest groups before taking up land monetisation.

4. (b)

IMF's "Elements of Effective Policies for Crypto Assets"

- IMF - The global lender of last resort said its Executive Board had discussed a paper, **"Elements of Effective Policies for Crypto Assets,"** that provided **"guidance to IMF member countries on key elements of an appropriate policy response to crypto assets."**

- The paper sets forth a framework of nine elements to help members develop a comprehensive, consistent, and coordinated policy response.
- **The nine elements or policy actions are:**
 - **Safeguard monetary sovereignty and stability** by strengthening monetary policy frameworks and do **not grant crypto assets official currency or legal tender status. Hence statement 1 is incorrect.**
 - **Guard against excessive capital flow volatility** and maintain effectiveness of capital flow management measures.
 - **Analyze and disclose fiscal risks** and adopt **unambiguous tax treatment** of crypto assets.
 - Establish **legal certainty of crypto assets** and address **legal risks**.
 - Develop and enforce **prudential, conduct, and oversight requirements** to all crypto market actors.
 - **Establish a joint monitoring framework** across different domestic agencies and authorities.
 - Establish **international collaborative arrangements** to enhance supervision and enforcement of crypto asset regulations. **Hence statement 2 is correct.**
 - **Monitor the impact of crypto assets** on the **stability of the international monetary system**.
 - Strengthen global cooperation to **develop digital infrastructures** and **alternative solutions** for **cross-border payments** and finance.

5. (b)

Statement 1 is not correct: Marginal Cost of Funds Based Lending Rate (MCLR) was instituted by RBI with effect from April 1, 2016. It replaced the base rate structure, which had been in place since July 2010.

Statement 2 is correct: It is the lowest interest rate that a bank or lender can offer. The final rate of lending also includes risk premium and spread charged by banks.

6. (a)

Statement 1 is correct: The Ministry of Finance has circulated the draft scheme for a **one-time settlement of contractual disputes** in which an arbitral award is under challenge called Vivad se Vishwas. It is aimed at **promoting ease of doing business**.

Statement 2 is correct: The Scheme will apply to disputes where **one of the parties is either the Government of India or its bodies** like public sector banks, public sector financial institutions, central public sector enterprises, Union territories, National Capital Territory of Delhi.

It will also cover all **organisations where the central government has a shareholding of 50%** like Metro Corporation.

Statement 3 is not correct - Disputes, where claims are raised against procuring entities along with some other party like the **State Government or private party will not be eligible** under the scheme.

7. (b)

Statement 1 is not correct: Primary Agricultural Credit Societies (PACS) are village level cooperative credit societies that serve as the last link in a three-tier cooperative credit structure. **A village can have multiple Primary Agricultural Credit Societies (PACS).**

Statement 2 not correct: While SCBs and DCCBs are connected to the Core Banking Software (CBS), PACS are not.

Statement 3 is correct: One of the most important functions of District Central Cooperative Banks is to provide funds to the Primary Agricultural Credit Societies. Credit from the SCBs is transferred to the district central cooperative banks, or DCCBs, that operate at the district level.

- The DCCBs work with PACS, which deal directly with farmers.
- PACS are involved in short term lending — or what is known as **crop loan**.
 - At the start of the cropping cycle, farmers avail credit to finance their requirement of seeds, fertilizers etc.

8. (d)

Statements 1, 2 and 3 are correct: Securities and Exchange Board of India (SEBI) and Exchanges introduced ASM in **2018** in order to enhance market integrity and safeguard the interest of investors in securities with surveillance concerns.

The **main purpose** /objective of these measures is to **alert and advise investors** to be extra cautious while dealing in these securities and, advise market participants to carry out necessary due diligence while dealing in these securities.

These stocks are shortlisted for the short term which is 5 days/15 days/ 30 days under the ASM framework. Such securities under ASM shall be reviewed on a **bi-monthly basis**, if the predefined objective criterias are not satisfied then it would be eligible to move out from the framework.

9. (d)

In News: Mahanadi Coalfields Ltd (MCL), the premier CPSE under the Ministry of Coal has introduced **drone technology** in coal mines.

Statement 1 is not correct: Coal is the most important and abundant fossil fuel in India. It accounts for **55% of the country's energy needs**. The country's industrial heritage was built upon indigenous coal.

- Commercial primary energy consumption in India has grown by about 700% in the last four decades.

Statement 2 is not correct: Engaged in coal mining activities in the Sundergarh, Jharsuguda, and Angul districts of Odisha, Mahanadi Coalfields Ltd (MCL) contributes more than **20 % of the total coal produced in India**.

10. (c)

Statement 1 is correct: National Payments Corporation of India (NPCI) is an **umbrella organisation** for operating retail payments and settlement systems in India, established by **Reserve Bank of India (RBI) and Indian Banks' Association (IBA) in 2008** under the provisions of the Payment and Settlement Systems Act, 2007.

Statement 2 is correct: It has been incorporated as a **"Not for Profit" Company** under the provisions of Section 25 of **Companies Act 1956** (now Section 8 of Companies Act 2013), with an intention to provide infrastructure to the entire Banking system in India for physical as well as electronic payment and settlement systems.

11. (d)

Recently, the Union Minister for Finance tabled the **Economic Survey 2022-23**.

Statement 1 is not correct: The Economic Survey has its roots in the British colonial era, with the first survey being presented in 1950-51. The Economic Survey of India is an annual document presented to

the Parliament by the Ministry of Finance. It reviews the performance of the Indian economy in the previous financial year and presents the outlook for the next year.

- It is prepared by the Economic Division of the Department of Economic Affairs (DEA) of the Ministry of Finance and is not governed by any specific act or legislation. The comments or policy solutions contained in the Survey are **not binding** on the government.

Statement 2 is not correct: India is the **largest recipient of remittances in the world receiving US\$ 100 bn** in 2022. Remittances are the second largest major source of external financing after service export. Remittances are funds transferred from migrants to their home country.

INDIAN POLITY & CONSTITUTION

1. Consider the following statements regarding anti-defection law under the Tenth Schedule of the Constitution:
1. Presiding officer has to decide on a defection case within 14 days of filing a petition regarding the case.
 2. If one-third of the legislators move along with the breakaway group then they will not be considered defectors.

Which of the statements given above is/are correct?

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

2. Consider the following statements:
1. The date of election of both the Speaker and the Deputy Speaker is decided by the President.
 2. An appeal against a ruling given by the Deputy Speaker when presiding Lok Sabha, lies with the Speaker.
 3. The Deputy Speaker is independent of the Speaker, not subordinate to him.

Which of the statements given above is/are correct?

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

3. Which of the following statements is/are correct regarding Section 153A IPC?
1. The provision was enacted in 1898 and was not in the original penal code.
 2. It penalises 'promotion of enmity between different groups on grounds of religion, race, place of birth, residence, language, etc., and doing acts prejudicial to maintenance of harmony'.

Choose the correct answer from the options given below

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

4. Courts subjecting a child to non-voluntary paternity tests in divorce proceedings of his parents impedes which of his following Fundamental Rights?
- (a) Right to Equality
 - (b) Cultural and Educational Rights
 - (c) Right to Privacy under Article 21

(d) Right against Exploitation

5. In which of the following cases a legislator is disqualified from being a Member of Parliament?

1. If he/she is not a citizen of India.
2. If he/she holds any office of profit under the Union or state government.
3. If he/she is convicted and sentenced to imprisonment for 6 months and above.
4. If he/she voluntarily gives up the membership of the political party.

Select the correct answer using the code given below:

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

6. The Unlawful Activities Prevention Act (UAPA) may apply to which of the following?

1. Citizens of India outside India.
2. Persons in the service of the Government.
3. Persons on ships and aircraft registered in India.

Select the correct answer using the code given below:

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

7. Consider the following statements:

1. The conditions of service and tenure of office of the election commissioners are decided by Parliament.
2. Election Commissioners cannot be removed from their office except in the same manner and on the same grounds as a judge of the Supreme Court
3. Election Commission resolves the disputes relating to splits/mergers of recognised political parties.

Which of the statements given above is/are correct?

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

8. The 97th Constitutional Amendment deals with the:

- (a) Constitutional status and protection to cooperative societies.
- (b) Increase in the number of official languages from 18 to 22.
- (c) Continuation of reservation for backward classes in government employment.
- (d) Constitutional Status was granted to National Commission for Backward Classes (NCBC).

9. Which of the following statements is/are correct regarding the role/powers of the Deputy Speaker?
1. The Deputy Speaker is subordinate to the Speaker.
 2. Whenever the Deputy Speaker is appointed as a parliamentary committee member, he automatically becomes its Chairman.
 3. He does not preside over the joint sitting of both Houses of Parliament, in case the Speaker is absent from such a sitting.

Choose the correct answer from the options given below

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

10. Which of the following recommendations is/are given by the Sarkaria Commission on appointment of the Governor?

1. The Governor should be from an outside state and he/she should not be the member of the ruling party.
2. He/She should have fixed tenure and the doctrine of pleasure should end and be deleted from the constitution.

Choose the correct option using the codes given below:

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

11. Consider the following statements.

1. The Chairman of the State Public Service Commission is appointed by the Governor.
2. The Advocate General of a state is appointed by the Governor.

Which of the statements given above is/are correct?

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

12. With the reference of President's Rule in India under Article 356, consider the following statements:

1. The grounds for imposing the President's rule in a state are clearly specified in the Constitution.
2. It can be imposed for six months at a time for a maximum duration of three years.
3. Section 93 of the Government of India Act, 1935 vested the President with the same power.

Which of the statements given above is/are **not** correct?

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

(d) 1, 2 and 3

13. Which of the following statements is/are correct regarding Section 69(a) of the IT Act?

1. Section 69 of the IT Act confers powers only to the central government to issue content-blocking orders to online intermediaries.
2. Social media intermediaries failing to comply with the rules and regulations are liable to be monetarily penalized along with an imprisonment term which may extend up to 7 years.

Select the correct answer using the codes given below.

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

14. Consider the following statements:

1. The Speaker has the discretion to expunge the unparliamentary expressions.
2. Expunged portions of the proceedings can be found in the records of the Parliament.
3. Media houses can report the expunged portions heard during the proceedings of Parliament.

Which of the statements given above are **not** correct?

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

15. Consider the following statements about the National Commission of Schedule Tribes (NCST):

1. It was constituted through the 91st Constitutional Amendment Act, 2003.
2. The chairperson of the NCST is appointed for a period of 5 years.
3. It is mandatory to have at least one woman member in the NCST panel.

Which of the statements given above is/are correct?

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

16. Consider the following statements:

1. The Sixth Schedule under Article 244 provides for the formation of Autonomous District Councils (ADCs).
2. ADCs have up to 30 members with a term of five years.
3. Hill councils in Leh and Kargil are protected under the Sixth Schedule since their separation from J&K.

Which of the statements given above are correct?

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

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

17. Consider the following statements:

1. K.G. Balakrishnan Commission has been formed to look into the SC quota for religious converts.
2. Currently, the Constitution (Scheduled Castes) Order, 1950 provides for only those belonging to Hindu and Sikh communities to be categorised as SCs.

Which of the statements given above is/are correct?

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

18. Consider the following statements:

1. Prior to 1996, there was no bar on the number of constituencies from which a candidate could contest.
2. If a person contests election from two constituencies, and wins from both, he has to vacate one seat out of the two constituencies.
3. The candidate should deposit the expenses for the by-election conducted for the vacant seat.

Which of the statements given above is/are correct?

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

19. Consider the following statements:

1. Police and 'Public Order' are State subjects under the Seventh Schedule to the Constitution of India.
2. Prevention of domestic violence against women is primarily the responsibility of the State Governments and Union Territory Administrations.
3. Protection of Women from Domestic Violence Act 2005 is a civil law meant to protect and provide support to victims of domestic violence.

Which of the statements given above is/are correct?

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

20. With reference to Joint Parliamentary Committee (JPC), consider the following statements:

1. It is set up by the Parliament for a special purpose, like for the detailed scrutiny of a Bill.
2. It comprises members from the ruling party only.

3. It is dissolved after its task has been completed.

Which of the statements given above are correct?

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

21. Pen Monument, recently seen in the news, is related to

- (a) Atal Bihari Vajpayee
- (b) Pranab Mukherjee
- (c) M Karunanidhi
- (d) Mulayam Singh Yadav

22. Which of the following Articles of the Indian Constitution is related to setting up a Constitution Bench of the Supreme Court?

- (a) Article 132
- (b) Article 136
- (c) Article 145
- (d) Article 147

23. Consider the following statements:

- 1. All executive power of the Union is vested in the President of India.
- 2. Article 87 of the Indian constitution provides two instances when the President specially addresses both Houses of Parliament.

Which of the above statements is/are correct?

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

EXPLANATIONS

1. (b)
10th Schedule:
 - **Constitutional basis:**
 - The **Tenth Schedule** was inserted in the Constitution by the **52nd Amendment Act**.
 - It lays down the process by which legislators may be **disqualified on grounds of defection**.
 - **Statement 1 is incorrect.**
 - The **law does not provide a time frame** within which the presiding officer has to decide a defection case.
 - The court in its recent judgment has held that, ideally, Speakers should take a decision on a defection petition **within three months**.
 - **Statement 2 is correct.**
 - Legislators may change their party without the risk of disqualification in certain circumstances.
 - The law allows a party to merge with or into another party provided that **at least two-thirds of its legislators are in favour of the merger**.
 - In such a scenario, neither the members who decide to merge, nor the ones who stay with the original party will face disqualification.
2. (d)
Deputy Speaker
 - **Statement 1 is not correct.**
 - Election of deputy speaker:
 - President is not required to fix the election date:
 - **The date of election of the Speaker** is decided by the **President** who needs to go by the advice of the Union cabinet which, in fact, chooses the date.
 - In the case of the Deputy Speaker, there is no constitutional requirement for him to wait for the advice of the Union cabinet in fixing the date of election of the Deputy Speaker.
 - **Mandate to Speaker:** As per Rule 8 of the Rules and Procedure of Lok Sabha it is the Speaker who has to fix the date of the election of the Deputy Speaker.
 - **Statement 2 is not correct.**
 - **No appeal:**
 - Although the Deputy Speaker gets to exercise these powers only in the absence of the Speaker his decisions are final and binding when he gives a ruling.
 - It has been repeatedly held that no appeal lies to the Speaker against a ruling given by the Deputy Speaker.
 - **Statement 3 is correct.**
 - **Independent from Speaker:** The Deputy Speaker is independent of the Speaker, not subordinate to him, as both are elected from among the members of the House.

3. (c)

Statement 1 is correct: The provision was enacted in 1898 and was not in the original penal code.

In 1969, the offence was amended (made cognisable – arrest without a warrant) to enlarge its scope to prevent communal tensions.

Statement 2 is correct: It penalises 'promotion of enmity between different groups on grounds of religion, race, place of birth, residence, language, etc., and doing acts prejudicial to maintenance of harmony'.

4. (c)

Option C is correct: Right against Exploitation contains articles prohibiting traffic in human beings and forced labour and employment of children in factories, etc.

- Right to equality aims at promoting equality and protects against discrimination.
- The **right to privacy** offers protection against activities that seek unwanted and intrusive interference in an individual's personal affairs such as the DNA information of a child.
- Cultural and educational rights are guaranteed by the Constitution to religious and linguistic minority groups in India, to enable them to preserve their distinct culture, language or script.

5. (b)

Disqualification of a legislator

- Constitutional provisions:
 - The provision for disqualification is given in Article 102 of the Constitution.
 - It specifies that a person shall be disqualified for contesting elections and being a Member of Parliament under certain conditions.
 - If he holds any **office of profit under the Union or state government** (except that of a minister or any other office exempted by Parliament). **Hence option 2 is correct.**
 - If he is of **unsound mind** and **stands so declared by a court.**
 - If he is an **undischarged insolvent.**
 - If he is **not a citizen of India** or has voluntarily acquired the citizenship of a foreign state or is under any acknowledgement of allegiance to a foreign state; and **Hence option 1 is correct.**
 - If he is **so disqualified under any law made by Parliament.**
 - **Article 102 also authorises Parliament** to make law determining conditions of disqualifications.
 - There are analogous provisions for members of state legislatures.
- The Representation of the People Act, 1951:
 - Disqualification on imprisonment:
 - The Representation of the People Act, 1951 provides that a person will be disqualified if convicted and sentenced to imprisonment for two years or more. Hence option 3 is incorrect.
- The person is disqualified for the period of imprisonment and a further six years.
- **A member incurs disqualification under the defection law:**
 - If he voluntarily gives up the membership of the political party on whose ticket he is elected to the House; **Hence option 4 is correct.**

- o If he votes or abstains from voting in the House contrary to any direction given by his political party;
- o If any independently elected member joins any political party; and
- o If any nominated member joins any political party after the expiry of six months.

6. (d)

About Unlawful Activities Prevention Act (UAPA)

- About:
 - o It was passed in 1967.
 - o The Act provides special procedures to deal with terrorist activities, among other things.
 - Aim:
 - o It is aimed at “more effective prevention of certain unlawful activities of individuals and associations for dealing with terrorist activities”.
 - Power to central government:
 - o The Act assigns absolute power to the central government, by way of which if the Centre deems an activity as unlawful then it may, by way of an Official Gazette, declare it so.
 - The provisions of this Act apply also to—
- (a) citizens of India outside India;
- (b) persons in the service of the Government, wherever they may be; and
- (c) persons on ships and aircraft, registered in India, wherever they may be. **Hence all the options are correct.**

7. (d)

Statement 1 is not correct: The conditions of service and tenure of office of the election commissioners and the regional commissioners shall be such as the President may by rule.

Statement 2 is not correct: The chief election commissioner is provided with security of tenure. He cannot be removed from his office except in the same manner and on the same grounds as a judge of the Supreme Court. **Election commissioners can be removed from office** on the recommendation of the chief election commissioner.

Statement 3 is correct: Election commission decides on disputes relating to the split /merger of parties and its decision is binding on the parties involved.

8. (a)

Option A is correct: By the virtue of 97th Amendment.

- Co-operative Societies were granted constitutional status:
- The Right to form cooperative societies made a fundamental right (Article 19)
- A new Directive Principle of State Policy (Article 43-B) to promote cooperative societies
- A new part IX-B was added to the constitution for cooperative societies

9. (b)

Statement 1 is not correct: The Deputy Speaker is not subordinate to the Speaker. He is directly responsible to the House.

Statement 2 is correct: Whenever the Deputy speaker is appointed as a member of a parliamentary committee, he automatically becomes its chairman.

Statement 3 is not correct: The Deputy Speaker performs the duties of the Speaker's office when it is vacant. He also presides over the joint sitting of both Houses of Parliament, in case the Speaker is absent from such a sitting. He can speak in the House, participate in its proceedings and vote on any question before the House.

10. (a)

New Governors have been appointed recently in 12 states and the Union Territory (UT) of Ladakh.

Sarkaria Commission on Office of Governor

- **Sarkaria Commission** made recommendations regarding the appointment of the Governor:
 - The Governor should be an eminent person and must be from outside the state.
 - The Governor must not have been active in politics in the recent past and when there are different parties in the center and state, the governor should not be from the ruling party at the center.
 - The Governor should be appointed in consultation with the Chief Minister of the state, Vice President, and Speaker of Lok Sabha.
 - The Governor's tenure of office must be guaranteed.

M.M. Punchhi Commission

- The appointment of the Governor should be entrusted to a committee comprising the Prime Minister, Home Minister, Speaker of the Lok Sabha, and Chief Minister of the concerned state.
- The Commission recommended that the doctrine of pleasure should end and be deleted from the constitution.

11. (c)

Statement 1 is correct

- The **Chairman and other members** of a Public Service Commission shall be appointed, in the case of the Union Commission or a Joint Commission, by the President, and **in the case of a State Commission, by the Governor of the State.**
- A member of a Public Service Commission **shall hold office for a term of six years from the date on which he enters upon his office** or until he attains, in the case of the Union Commission, the age of sixty-five years, and in the case of a State Commission or a Joint Commission, the age of sixty-two years, whichever is earlier.

Statement 2 is correct

- The Governor of each State shall appoint a person who is qualified to be appointed a **Judge of a High Court to be Advocate-General for the State.**
- It shall be the duty of the Advocate-General **to give advice to the Government of the State upon such legal matters**, and to perform such other duties of a legal character, as may from time to time be referred or assigned to him by the Governor, and to discharge the functions conferred on him by or under this Constitution or any other law for the time being in force.

- The Advocate-General **shall hold office during the pleasure of the Governor**, and shall receive such remuneration as the Governor may determine.

12. (c)

Statement 1 is not correct: Article 356 empowers the President to withdraw to the **Union the executive and legislative powers of any state** “if he is satisfied that a situation has arisen in which the government of the state cannot be carried on in accordance with the provisions of the Constitution”.

Statement 2 is correct: President’s Rule in a state can be imposed for **six months at a time for a maximum duration of three years**.

- Every six months, **Parliamentary approval** to impose President’s Rule will be required again.

Statement 3 is not correct: Article 356 was inspired by **Section 93 of the Government of India Act, 1935** with the difference that **instead of the Governor, the President** is vested with the said power. For the British, this provision allowed for a ‘controlled democracy’ – allowing the British authorities to exercise ultimate power when they deemed necessary.

13. (b)

Statement 1 is not correct: Section 69 of the IT Act confers powers to the center and state governments to issue content-blocking orders to online intermediaries.

- The government may direct any agency to intercept, monitor or decrypt any information generated, transmitted, received, or stored in any computer resource.

Statement 2 is correct: Social media intermediaries failing to comply with the rules and regulations are liable to be monetarily penalized along with an imprisonment term which may extend up to 7 years.

14. (b)

Statement 1 is correct: Rule 380 (“Expunction”) states that If a member uses a word that could be unparliamentary or indecent and hurts the decorum or dignity of the House. **The Speaker has the discretion to expunge the word or usage.**

Statement 2 is not correct - Rule 381 states that once the Speaker expunges the word or usage, it comes back to the reporting section which **removes the word from the records and mentions in the proceedings as “expunged as ordered by the chair”.**

Statement 3 is not correct - Expunged portions of the proceedings cease to exist in the records of Parliament, and they can no longer be reported by media houses, even though they may have been heard during the live telecast of the proceedings.

15. (b)

Statement 1 is not correct: The National Commission for Scheduled Tribes (NCST) was established by amending Article 338 and **inserting a new Article 338A** in the Constitution through the **Constitution (89th Amendment) Act, 2003.**

- The 91st Constitutional amendment Act restricted the size of the council of ministers to 15% of legislative members & strengthened Anti Defection laws.
 - **Statement 2 is not correct:** The Chairperson, the Vice-Chairperson, and the other Members hold office for a term of **3 years in the NCST.**

- o **Statement 3 is correct:** The NCST panel has one chairperson, one vice-chairperson, and three members (two out of VC, and the members should be from the ST community). **At least one member should be a woman.**

16. (a)
Sixth Schedule

- **What is the Sixth Schedule?**
 - o The **Sixth Schedule under Article 244** provides for the formation of autonomous administrative divisions — **Autonomous District Councils (ADCs)** — that have some legislative, judicial, and administrative autonomy within a state. **Hence statement 1 is correct.**
- **Application:**
 - o The Sixth Schedule applies to the Northeastern states of Assam, Meghalaya, Mizoram (three Councils each), and Tripura (one Council).
- **About ADCs:**
 - o ADCs have up to **30 members with a term of five years**, and can make laws, rules and regulations with regard to land, forest, water, agriculture, village councils, health, sanitation, village- and town-level policing, inheritance, marriage and divorce, social customs and mining, etc. The **Bodoland Territorial Council in Assam is an exception** with more than 40 members and the right to make laws on 39 issues. **Hence statement 2 is correct.**
- **Ladakh's demand of Sixth Schedule:**
 - o After its special status was removed, several political groups in Ladakh have been demanding that **land, employment, and the cultural identity of Ladakh**, should be protected under the Sixth Schedule.
 - o The UT has two Hill councils in Leh and Kargil, but neither is under the Sixth Schedule. **Hence statement 3 is incorrect.**

17. (a)

In News: Recently, the Ministry of Social Justice and Empowerment stated that the government is fully committed to providing all the facilities to enable the Balakrishnan Commission to function effectively.

Statement 1 is correct: The central government has notified a Commission in 2022 under the former Chief Justice of India and former chairperson of the National Human Rights Commission (NHRC) K G Balakrishnan .

- The three-member Commission will also comprise retired IAS officer Dr Ravindra Kumar Jain and University Grants Commission member Prof Sushma Yadav.
- It will examine the issue of **whether Scheduled Caste (SC) status can be accorded to Dalits who have over the years converted to religions other than Sikhism or Buddhism.**

Statement 2 is not correct: Currently, the Constitution (Scheduled Castes) Order, 1950 provides for only those belonging to Hindu, Sikh or Buddhist communities to be categorised as SCs.

- When enacted, the Order only allowed for Hindu communities to be classified as SCs based on the social disabilities and discrimination they faced due to untouchability. It was amended in 1956 to include Sikh communities and again in 1990 to include Buddhist communities as SCs.

18. (a)

Statement 1 is correct - Section 33(7) of the Representation of People Act (RPA) permits a candidate to contest any election (parliamentary, state assembly, biennial council, or by-elections) from **up to two** constituencies.

- The provision was introduced in 1996 prior to which there **was no bar** on the number of constituencies from which a candidate could contest.

Statement 2 is correct - Section 70 of RPA states that if a person is elected to more than one seat in either House of Parliament or in the House or either House of the Legislature of a State, then, unless within the prescribed time he resigns all but one of the seats all the seats shall become vacant.

Statement 3 is not correct - The government bears the expenses of the by elections conducted, however, the Election Commission of India suggested that a candidate should deposit an amount of ₹5 lakh for contesting in two constituencies in an Assembly election or ₹10 lakh in a general election. The amount would be used to cover the expenses for a by-election.

19. (d)

In News: The Delhi High Court has stayed proceedings under the **Protection of Women against Domestic Violence Act** in a case where a man moved a local court accusing his wife of adultery, taking a prima facie view that protection under the DV Act is not available to the husband.

Statements 1 and 2 are correct: 'Police' and 'Public Order' are State subjects under the **Seventh Schedule to the Constitution of India**. Maintenance of law and order, protection of life and property of citizens including **prevention of domestic violence against women** is primarily the responsibility of the State Governments and Union Territory Administrations.

- Nevertheless, giving high priority to the safety of women, the Central Government has also taken a number of initiatives in this regard.
- The Government has ensured that their schemes of One Stop Centres (OSCs), Universalisation of Women Help Line (WHL), Ujjawala Homes, SwadharGreh, Emergency Response Support System (112) and various authorities under women-centric laws such as 'The Protection of Women from Domestic Violence Act, 2005', 'The Dowry Prohibition Act, 1961', 'The Prohibition of Child Marriage Act, 2006', etc. remain operational and available for providing assistance to women during the aforesaid period. The Government has also undertaken sensitisation programs for the concerned officials of States and UTs for this purpose

Statement 3 is correct: The **Protection of Women from Domestic Violence Act, 2005** came into effect in October 2006 and aims to provide protection and support to victims of domestic violence.

- The State Governments are required to appoint Protection Officers, register Service Providers and notify shelter homes and medical facilities for implementation of the Act.
- **It is a Civil law meant to protect and provide support to victims of domestic violence.**

20. (c)

In News: The Opposition joined hands to demand a probe either by a Joint Parliamentary Committee (JPC), headed by the Supreme Court or monitored by the Chief Justice of India, into the allegations of fraud and stock manipulation against the Adani Group.

Statements 1 and 3 are correct: Joint Parliamentary Committee (JPC) is set up by the **Parliament for a special purpose**, like for the detailed scrutiny of a subject or Bill.

- It is dissolved after its term ends or its task has been completed.

Statement 2 is not correct: It has members from both the Houses and from both the ruling parties and the opposition. A JPC is set up after one House of Parliament has passed a motion and the other has agreed to it.

- Members of the JPC are decided by the Parliament. The number of members can vary – there is no fixed number.

21. (c)

In News: The public hearing on the proposed pen memorial for former **Chief Minister M. Karunanidhi** was marked by disruptions as groups supporting the construction of the monument created a ruckus while opposing views were presented on grounds of environmental damage and loss of livelihoods.

- The Pen Memorial pays tribute to **M. Karunanidhi**.
 - The idea of a monument on water derives from the metaphorical catamaran to which Karunanidhi compared himself.
 - He was one of the most **influential figures in Tamil Nadu and Dravidian** politics who, apart from being president of the **DMK from 1969 to 2018** and **Chief Minister of Tamil Nadu for five terms between 1969 and 2011**, made **significant contributions to Tamil literature** as an orator, poet, and writer of non-fiction and fiction, plays, and films.

22. (c)

In News: As the recent majority judgment of the Supreme Court on demonetisation comes under criticism, the minority judgment by J. Nagarathna is being hailed for its challenge to the RBI's institutional acquiescence to the Central government.

- **Article 145(3)**, which deals with the rules of the court, provides for the setting up of a Constitution Bench.
- **Article 145(3)** says a minimum of five judges need to sit for deciding a case involving a "substantial question of law as to the interpretation of the Constitution", or for hearing any reference under Article 143, which deals with the power of the President to consult the SC.

23. (c)

President Droupadi Murmu addressed the joint sitting of Parliament for the first time after assuming the position in July 2022.

Statements 1 and 2 are correct: All executive power is vested in the President of India. The Council of Ministers headed by the Prime Minister aids and advises the President who exercises his powers in accordance with such advice.

- The Constitution gives the President and the Governor the power to address a sitting of the legislature.
- **Article 87 of the constitution provides** two instances when the President specially addresses both Houses of Parliament.
 - The President of India addresses both the Rajya Sabha and the Lok Sabha at the beginning of the first Session after each general election when the reconstituted lower house meets for the first time.

The President also addresses both the houses at the beginning of the first session of each year.

GOEGRAPHY

1. With reference to the Seismic waves, consider the following statements:

1. They are generated due to the release of energy at the focus.
2. They travel only through the interior of the earth.
3. They are faster than all the other types of Waves.

The statements given above are related to which of the following types of waves?

- (a) Body waves
- (b) Surface Wave
- (c) Love Waves
- (d) Rayleigh Waves

2. Which of the following may lead to the formation of the Heat dome?

1. Extreme heat waves
2. Jet streams
3. High-pressure atmospheric conditions
4. Influence of La Niña

Select the correct answer using the code given below:

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

3. Consider the following statements:

1. Ice-contact lakes and Distal lakes are the two types of Glacial lakes.
2. These lakes are often found in steep mountainous regions.

Which of the statements given above is/are correct?

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

4. Anatolian plate mainly comprising Turkey is surrounded by which of the following tectonic plates?

1. Nazca plate
2. Aegean Sea Plate
3. Cocos plate

Select the correct answer using the code given below:

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

5. Kelp forests are predominantly found in which of the following regions in the world?

- (a) Along the Eastern Pacific Coast
- (b) The Congo Rainforest
- (c) Sundarban Reserve Forest of Bangladesh
- (d) Peary Land in the North of Greenland

6. Consider the following pairs:

	Mineral	Top Producer (state)
1.	Mica	Andhra Pradesh
2.	Bauxite	Odisha
3.	Manganese	Madhya Pradesh

Which of the pairs given above is/are correctly matched?

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

7. Anatolian tectonic plate which was recently in news is located in which of the following regions?

- (a) Western Asia
- (b) South America
- (c) Australia
- (d) South East Asia

8. Which of the following may lead to the decline of Kelp Forests?

- 1. Increase in Coral Reefs
- 2. Increase in the moss animal named bryozoa.
- 3. Increasing ocean temperatures
- 4. Strong individual storms

Select the correct answer using the code given below:

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

EXPLANATIONS

1.

(a)

Seismic waves

- When an **earthquake occurs**, the **shockwaves of released energy** that shake the Earth and temporarily turn soft deposits **are called seismic waves**.
- **There are three basic types of seismic waves:**
 - P-waves, S-waves and Surface waves (Rayleigh and Love waves).
 - P-waves and S-waves are sometimes collectively called **Body Waves**.
 - **Body waves:**
 - Generated due to the **release of energy at the focus** and move in all directions travelling through the body of the earth. Hence, the name – body waves.
 - Travel **only through the interior of the earth**.
 - **Faster than surface waves**.
 - There are 2 types of body waves: **P- primary waves and S-secondary waves**.
 - P waves travel through gaseous, liquid and solid materials whereas S waves travel only through solid materials.
 - **Surface Waves:**
 - When the **body waves interact with surface rocks**, a new set of waves is generated called surface waves.
 - These waves **move along the earth's surface**.
 - Surface waves are **transverse waves** in which particle movement is perpendicular to the wave propagation. Hence, they create **crests and troughs** in the material through which they pass.
 - They are the **most damaging** waves.
 - 2 common surface waves are **Love waves** and **Rayleigh waves**.
 - Speed of different Waves in descending order:
 - Primary Waves > Secondary Waves > Love Waves > Rayleigh Waves.

2.

(d)

Heat Dome:

- A heat dome occurs when the atmosphere traps hot ocean air like a lid or cap.
- How does it form?
 - **Extreme heat waves have become more frequent in recent decades**. Sometimes, the scorching heat is ensnared in what is called a heat dome.
 - This happens when **strong, high-pressure atmospheric conditions** combine with **influences from La Niña**, creating vast areas of sweltering heat that gets trapped under the high-pressure "dome."
Hence options 1, 3 and 4 are correct.
 - **Correlation with jet streams:**
 - Typically, heat domes are tied to the behavior of the jet stream, a band of fast winds high in the atmosphere that generally runs west to east.

- Normally, the jet stream has a wavelike pattern, meandering north and then south and then north again.
- When these meanders in the jet stream become bigger, they move slower and can become stationary. That's when heat domes can occur. **Hence option 2 is correct.**

3. (c)

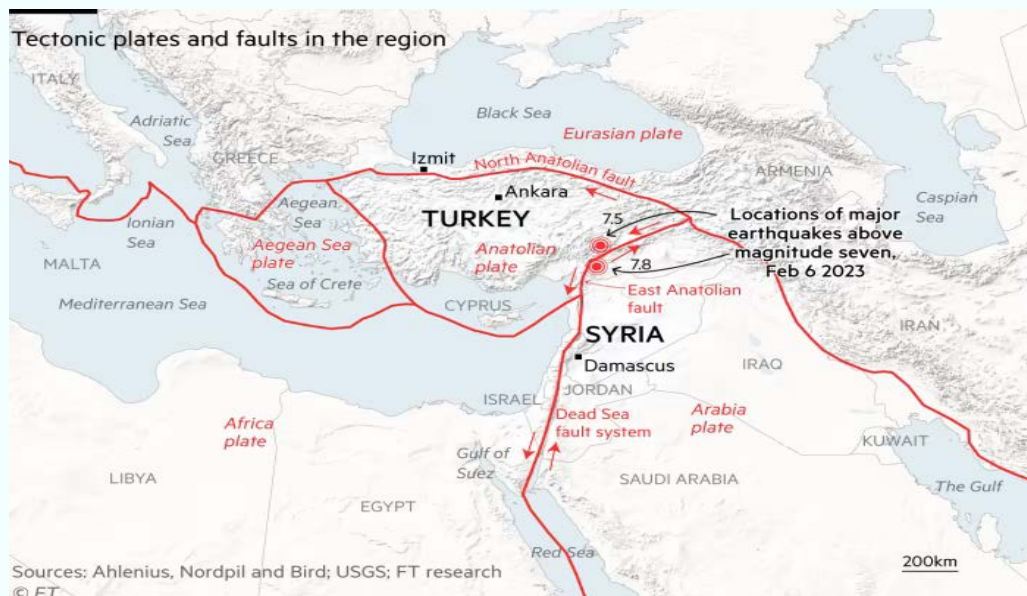
Statement 1 is correct - A glacial lake is a body of water that **originates from a glacier**. It typically forms at the foot of a glacier but may form on, in, or under it. They are commonly divided into two main groups: **ice-contact lakes** which are characterized by the presence of **glacier ice terminating in lake water** and **distal lakes** which are somewhat distant but still **influenced by, the presence of glaciers and/or ice sheets**.

Statement 2 is correct - Glacial lakes are often found in **steep, mountainous regions**.

4. (b)

Anatolian tectonic plate

- The Anatolian Plate is a continental tectonic plate comprising most of the Anatolia (Asia Minor) peninsula (and the country of Turkey).
 - Turkey is frequently shaken by earthquakes due to the location of this plate.
- **Boundaries:**
 - To the east, the East Anatolian Fault.
 - To the left, it forms a boundary with the **Arabian Plate**.
 - To the south and southwest is a convergent boundary with the African Plate.
 - **Aegean Sea Plate:**
 - In addition to this, the Aegean Sea Plate, located in the eastern Mediterranean Sea under southern Greece and western Turkey, is also a source of seismic activity in the region.



5. (a)

Kelp forests

- Kelp forests are underwater areas with a high density of kelp, which covers a large part of the world's coastlines.

- Smaller areas of anchored kelp are called kelp beds.
- Kelp are not plants, but rather extremely large brown algae, and many different species of kelp make up kelp forests.
- **Habitat:** Kelps usually **live further from the tropics** than coral reefs, mangrove forests, and warm-water seagrass beds, so kelp forests **do not overlap with those systems**.
- **Global presence:** Kelp forests grow predominantly along the Eastern Pacific Coast, from Alaska and Canada to the waters of Baja, California.

6. (d)

Pair 1 is correct: Andhra Pradesh and Rajasthan are two largest producers of Mica. Bihar, Jharkhand, Maharashtra, Odisha, Rajasthan and Telangana are states with notable reserves.

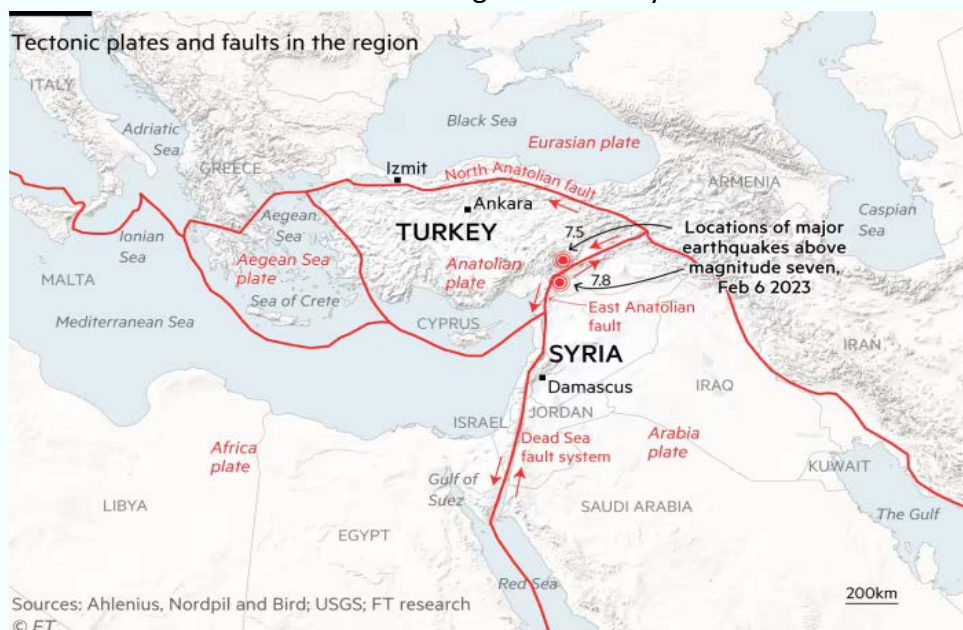
Pair 2 is correct: Odisha is the largest producer of Bauxite. Andhra Pradesh, Gujarat, Jharkhand, Maharashtra, Madhya Pradesh & Chhattisgarh are states with notable reserves.

Pair 3 is correct: Madhya Pradesh is the leading manganese producing State while Odisha has largest reserves. Karnataka, Madhya Pradesh Maharashtra & Goa Andhra Pradesh, Jharkhand, Rajasthan, Gujarat are states with significant reserves

7. (a)

Anatolian tectonic plate

- The Anatolian Plate is a continental tectonic plate comprising most of the Anatolia (Asia Minor) peninsula (and the country of Turkey).
 - Turkey is frequently shaken by earthquakes due to the location of this plate.
- Boundaries:
 - To the east, the East Anatolian Fault.
 - To the left it forms a boundary with the Arabian Plate.
 - To the south and southwest is a convergent boundary with the African Plate.



8. (b)
Kelp Forests

- Kelp forests are underwater areas with a high density of kelp, which covers a large part of the world's coastlines.
 - Smaller areas of anchored kelp are called kelp beds.
- Kelp are not plants, but rather extremely large brown algae, and many different species of kelp make up kelp forests.
- **Habitat:**
 - Kelps usually **live further from the tropics** than coral reefs, mangrove forests, and warm-water seagrass beds, so kelp forests **do not overlap with those systems. Hence option 1 is incorrect.**
- **Threats to Kelp Forest:**
 - Climate change and human-induced stressors:
 - Kelps are increasingly threatened by climate change, eutrophication and shoreline development, among other human-induced stressors.
 - Destructive fishing practices, coastal pollution, and accidental damage caused by boat entanglement are known to negatively affect kelp forests.
 - **Warming of oceans:**
 - Warmer than normal summers and seasonal changes to currents that bring fewer nutrients to kelp forests combine to weaken kelps and threaten their survival in some years. **Hence option 3 is correct.**
 - **Bryozoa:**
 - One such threat is from bryozoa, moss animals that grow as mats on kelps. They drive the seaweed to sink into the seafloor and disintegrate.
- The bryozoa outbreak can be linked to high temperatures as high temperature and kelp density results in more bryozoan.
- Dense kelp beds in warmer and less wave-exposed sites are more susceptible to bryozoan outbreaks. **Hence option 2 is correct.**
 - **Storms:**
 - Strong individual storms can wipe out large areas of kelp forest, by ripping the kelp plants from the seafloor. **Hence option 4 is correct.**

GOVERNMENT SCHEMES/ INITIATIVES

1. Which of the following are the criticisms associated with the Agnipath Scheme?

1. There was no Pilot Project undertaken to Test the Scheme.
2. Such a scheme structure was declined by the Kargil Review Committee.

Select the correct answer using the code given below:

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

2. Which of the following best describes the 'Teres' platform that was recently in news?

- (a) A data aggregation platform to gather information related to cybersecurity.
- (b) A place to accelerate cloud-based cross-platform performance.
- (c) A platform used often for transcribing arbitration proceedings.
- (d) A platform to produce a graphic product which can be used for specific purpose.

3. With reference to NITI Aayog, consider the following statements:

1. It provides both directional and policy inputs to the Government.
2. Fostering cooperative federalism is one of the objectives of the Aayog.
3. There is no active involvement of states in the Governing Council of the Aayog.

Which of the statements given above are correct?

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

4. With reference to PM KUSUM scheme, consider the following statements:

1. It aims to increase India's solar water pump manufacturing capacity.
2. This scheme is launched under the Ministry of New and Renewable Energy.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 and 2

5. In the context of the Mental Healthcare Act (NHA), 2017, consider the following statements.

1. It establishes a Central Mental Health Authority to regulate mental healthcare.
2. It decriminalizes attempted suicide, recognizing that suicide is a symptom of mental illness.

Which of the given above statements is/are correct?

- (a) 1 only

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

6. Which of the following statements is **not** correct regarding the draft Geo-heritage Sites and Geo-relics bill, 2022?

- (a) Bill defines both Geoheritage sites & Geo relics.
- (b) It imposes a prohibition on the construction, reconstruction, repair or renovation of any building within the geo-heritage site area.
- (c) Bill is silent on the issue of compensation to the owner or occupier of the land.
- (d) None of the above

7. Which of the following statements is/are correct regarding the Vande Bharat Express?

- 1. The Vande Bharat Express was earlier known as Train 18.
- 2. The first 'Vande Bharat Express' train was flagged off on the New Delhi – Kanpur – Allahabad – Varanasi- route in February 2019.

Choose the correct answer from options given below:

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

8. What is the aim of the recently launched 'Unbottled Initiative' by the Prime Minister?

- (a) Increase the production of green hydrogen.
- (b) Manufacturing of sustainable garments from recycled polyester.
- (c) Indoor Solar Cooking System providing reliable cooking solutions to India.
- (d) Alcohol Prohibition in the state by the Government of Bihar.

9. Which of the following Indian states have more than one capital?

- 1. Madhya Pradesh
- 2. Maharashtra
- 3. Tamil Nadu
- 4. Himachal Pradesh

Select the answer using the code given below:

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

10. Consider the following statements:

- 1. "One District, One Product" aims to improve Tourism infrastructure in border villages.
- 2. "Atmanirbhar Clean Plant Program" is launched to boost high-value horticultural crops.
- 3. "Vibrant Villages Programme" is launched for the promotion of GI products and handicrafts.

Which of the statements given above is/are correct?

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

11. Tumakuru district, recently seen in the news, is located in which of the following states?

- (a) Tamil Nadu
- (b) Rajasthan
- (c) Karnataka
- (d) Andhra Pradesh

12. In the context of Child Marriage, consider the following statements:

- 1. The Prevention of Child Marriage Act, 2006 was the first law in India to prevent Child Marriage.
- 2. As per both personal and statutory law, the legal marriage age of a girl is 18 years in India.

Select the correct answer using the code given below:

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

EXPLANATIONS

1. (a)

Agnipath Recruitment Scheme

- **About:**
 - **Around 45,000 to 50,000 soldiers** will be recruited **annually**, and most will leave the service in just four years.
 - Of the total annual recruits, only 25 percent will be allowed to continue for another 15 years under permanent commission.
 - Recruits under the scheme will be known as “Agniveers”.
- **Statement 1 is correct.**
 - **Concerns:**
 - **No Pilot Project to Test the Scheme;** Lead to the militarization of the society.
 - **May Dilute professionalism, military ethos and fighting spirit** (takes 7-8 yrs to become fully ready combat soldier)
 - Will hit the **basic ethos of Naam, Namak & Nishan** (reputation of Battalion, fidelity & ensign)
 - **Tourist soldiering** is not a good idea for India’s security challenges.
- **Statement 2 is not correct:** The government also told the court that the impugned scheme is the result of various studies and deliberations such as the **Kargil Review Committee**, which proposed the retention of soldiers for a shorter duration of time as **opposed to the existing structure of 15 to 20 years**.

2. (c)

Artificial Intelligence in Judiciary

- The Supreme Court recently started a first-of-its-kind project to transcribe its proceedings live using Artificial Intelligence (AI).
- Suggested by Indira Jaising:
 - The suggestion to transcribe hearings was made by senior advocate Indira Jaising in the plea she had filed seeking a live telecast of court proceedings.
- Platform:
 - The SC transcription is using Teres, which is a platform used often for transcribing arbitration proceedings.
 - The platform is run by Nomology Technology Private Limited, a Bengaluru-based company.

3. (a)

Statement 1 is correct: NITI Aayog was formed via a resolution of the Union Cabinet on **1 January 2015**. As the apex think tank of India’s government, NITI Aayog **provides both directional and policy inputs**.

Statement 2 is correct: The numerous objectives of the NITI Aayog include **fostering cooperative federalism**, evolving a shared vision of national development priorities, sectors and strategies with the

active involvement of states, and developing mechanisms to formulate credible plans at the village level and aggregate these progressively at higher levels of government.

Statement 3 is not correct: The Governing Council is the **premier body** tasked with evolving a **shared vision of national priorities and strategies**, with the active involvement of States, in shaping the development narrative.

- It comprises the Chief Ministers of all the States and Union Territories with legislatures and Lt Governors of other Union Territories. **Prime Minister is the chairman of the Governing Council.**

4. (c)

Statement 1 is correct: The objectives of the Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM) include de-dieselisation of the farm sector, providing water and energy security to farmers, increasing the income of farmers and curbing environmental pollution. To achieve these objectives, following targets have been kept under the Scheme:

Component-A: 10,000 MW of Decentralized Ground Mounted Grid Connected Solar Power Plants.

Component-B: Installation of 20 lakh standalone Solar Powered Agriculture Pumps.

Component-C: Solarisation of 15 Lakh Grid-connected Agriculture Pumps including through Feeder Level Solarisation.

Statement 2 is correct: The Ministry of New and Renewable Energy has launched 'Kisan Urja Suraksha evam Utthaan Mahabhiyan (KUSUM) Scheme for solarisation of the agriculture sector.

5. (c)

Statement 1 is correct: The Mental Healthcare Act (NHA), 2017, establishes a **Central Mental Health Authority and State Mental Health Authorities** to regulate mental healthcare and services and to promote mental health.

- It establishes mental health services at the district level to provide access to mental healthcare and Mental Health Review Boards (MHRBs) to oversee the treatment of persons with mental illness and to protect their rights.

Statement 2 is correct: **The Mental Healthcare Act (NHA), 2017 decriminalizes attempted suicide**, recognizing that suicide is often a symptom of mental illness, and provides care and treatment for persons who attempt suicide.

- Attempted suicide is **self-injury with the desire to end one's life that does not result in death**. According to the WHO, around 8 lakh people die of suicide every year, and up to 25 times as many make a suicide attempt.

6. (c)

Draft Geo-heritage Sites and Geo-relics (Preservation and Maintenance) Bill

- **Aim:**
 - The Bill is aimed at providing for the **declaration, preservation, protection and maintenance of geo-heritage sites and geo-relics** of national importance, for geological studies, education, research and awareness purposes.

- **Definitions:**
 - The draft bill defines **Geoheritage sites** as:
 - Sites containing geo-relics and phenomena, stratigraphic type sections, geological structures and geomorphic landforms including caves, natural rock-sculptures of national and international interest; and includes such portion of land adjoining the site, that may be required for their conservation or to access to such sites.
 - **A Geo-relic is defined as:**
 - Any relic or material of a geological significance or interest like sediments, rocks, minerals, meteorite or fossils.
 - The GSI will have the power to acquire geo-relics “for its preservation and maintenance”.
 - **Hence statement (a) is correct.**
- **Compensation to the land owners:**
 - Provision is made for compensation to the owner or occupier of land who incurs loss or damage from the land due to the exercise of any power under this Act.
 - The market value of any property will be ascertained in accordance with the principles set out in the RFCTLARR Act. **Hence statement (c) is not correct.**
- **Prohibitions:**
 - The Bill imposes a prohibition on construction, reconstruction, repair or renovation of any building within the geoheritage site area or utilisation of such area in any other manner, except for construction for preservation and maintenance of geoheritage site or any public work essential to the public. **Hence statement (b) is correct.**

7. (c)

Statements 1 is correct: Vande Bharat is India’s first indigenous Semi High-Speed Train. **The Vande Bharat Express, earlier known as Train 18,** is an electric multiple-unit train designed and manufactured by the government-owned Integral Coach Factory (ICF), Chennai.

Statements 2 is correct: The first ‘Vande Bharat Express’ train was flagged off on the **New Delhi – Kanpur – Allahabad – Varanasi- route** in February 2019.

8. (b)

The uniforms under the ‘Unbottled’ initiative of Indian Oil were launched by the PM. Indian Oil is taking the initiative through ‘Unbottled’ - a brand for sustainable garments launched for merchandise made from recycled polyester.

9. (b)

Tamil Nadu and Madhya Pradesh does not have 2 capitals.

- Maharashtra has two capitals **Mumbai and Nagpur** with the latter being the winter capital of the state.
- Himachal Pradesh has two capitals **Dharamshala and Shimla**. The latter is considered the summer capital because the region receives heavy snowfall during winter, causing landslides.

10. (b)

Budget 2023-24

- **Statement 1 is not correct:**
 - **ODOPs (One District, One Product):** States to be encouraged to set up a **Unity Mall** for promotion and sale of their own and also all other states' **ODOPs (One District, One Product)**, GI products and handicrafts.
- **Statement 2 is correct.**
 - **Atmanirbhar Clean Plant Program:** The program to be launched to boost availability of disease-free, quality planting material for high value horticultural crops.
- **Statement 3 is not correct:**
 - **Vibrant Villages Programme:** Tourism infrastructure and amenities to be facilitated in border villages through the Vibrant Villages Programme.

11. (c)

In News: Prime Minister Narendra Modi recently inaugurated the Hindustan Aeronautics Limited's helicopter factory — the country's largest chopper manufacturing facility — in the **Tumakuru district of Karnataka**. The present town has a history of just a couple of centuries and is said to owe its origin to **Kante Arasu**, a member of the Mysore royal family.

- The area comprised in district consists of a few places of great antiquarian interest and several places of historical importance.

12. (d)

Statement 1 is not correct: India had the **Sarda Act, 1929** which prescribed 15 as the minimum age of marriage for girls. Later renamed the **Child Marriage Restraint Act (CMRA), 1929**, it prohibited the marriage of girls below the age of 15 years and boys below the age of 18.

- Recently the **Prohibition of Child Marriage (Amendment) Bill, 2021** has sought to amend the Prohibition of Child Marriage Act (PCMA), 2006, to increase the minimum age of marriage for women from 18 to 21 years.

Statement 2 is not correct: As per **Muslim Personal Law** girls attaining puberty or 15 years can get married. Thus legal marriage in India for all girls is not 18.

DEFENSE/ INTERNAL SECURITY

1. DUSTLIK is a biennial training exercise held between the armies of India and which of the following countries?
 - (a) Mongolia
 - (b) Tajikistan
 - (c) Uzbekistan
 - (d) Iran

2. To which of the following countries has India recently agreed to export Indigenous Pinaka Multi-Barrel Rocket Launchers?
 - (a) Philippines
 - (b) Myanmar
 - (c) Armenia
 - (d) Azerbaijan

3. Consider the following statements
 1. The INS Vikrant saw action during the Goa Liberation Operation in 1961 and played a crucial role in the 1971 war.
 2. INS Viraat's first major operation was 'Operation Jupiter' in 1989 as part of Peacekeeping Operations in Sri Lanka.

Which of the statements given above is/are correct?

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

EXPLANATIONS

1. (c)

Option c is correct: DUSTLIK is a biennial training exercise held between the armies of India and Uzbekistan.

- It aims at enhancing military capability to undertake multi-domain operations in a Sub Conventional scenario under United Nations Mandate.
- The **first edition** of the joint military exercise took place in Tashkent in 2019.

2. (c)

Option C is correct: Pinaka rocket system is a multi-barrel rocket system developed by Pune-based Armament Research and Development Establishment.

- It can fire a salvo of 12 rockets over a period of 44 seconds.
- One battery of the Pinaka system consists of six launch vehicles, accompanied by loader systems, radar and links with network-based systems and a command post. One battery can neutralise an area of 1 km by 1 km.
- The navigation system of the Guided Pinaka missile is also aided by the Indian Regional Navigation Satellite System (IRNSS).

India has reportedly signed a \$250 million deal to export arms and ammunition including the indigenously developed multi-barrel Pinaka launchers to Armenia.

3. (c)

In News: In a significant milestone, the Naval variant of the **indigenous Light Combat Aircraft (LCA)** undertook its maiden landing onboard the country's first Indigenous Aircraft Carrier (IAC) INS Vikrant.

Statements 1 and 2 are correct:

INS Vikrant

- The INS Vikrant was launched in 1945 as Hercules.
- India purchased it from Britain in 1957.
- It was the first ever carrier for an Asian country and remained so for a long time.
- The **INS Vikrant** saw action during the Goa Liberation Operation in 1961.
- It played a crucial role in the 1971 war with its aircraft decimating the enemy.
- Its new capability inspired the induction of **INS Vikramaditya and the plans for its reincarnation.**

INS Viraat

- INS Viraat was originally commissioned by the British Royal Navy as HMS Hermes in 1959.
- It was commissioned by the Indian Navy in 1987.
- INS Viraat's first major operation was '**Operation Jupiter**' in 1989 as part of Peace Keeping Operations in Sri Lanka, following the breakdown of the Indo- Sri Lankan Accord of 1986.
- It also played a pivotal role in **Operation Parakram**, which was carried out in the wake of the 2013

terrorist attack on the Indian Parliament.

- By establishing a blockade against Pakistan during the 1999 Kargil War, the **INS Viraat also played a crucial part in Operation Vijay.**
- It has been built with state-of-the-art automation features and **is the largest ship ever built in the maritime history of India.**

INTERNATIONAL RELATIONS

1. Consider the following statements:
 1. The Mukaab in Saudi Arabia will be built using the modern Najdi architectural style.
 2. Najdi architecture is one of the most prevalent architectural patterns of Indonesia.
 3. The need to respond to the hot desert climate is one of the main factors of the Najdi Architecture.Which of the statements given above are correct?
 - (a) 1 and 2 only
 - (b) 2 and 3 only
 - (c) 1 and 3 only
 - (d) 1, 2 and 3
2. Which of the following countries are members of the ASEAN Defence Ministers' Meeting + (ADMM+)?
 1. Russia
 2. Singapore
 3. India
 4. Indonesia
 5. Japan
 - (a) 1,2 and 4 only
 - (b) 2,3 and 4 only
 - (c) 3 and 5 only
 - (d) 1, 2,3,4 and 5
3. Which of the following statements is/are correct regarding the New START treaty?
 1. It is the last remaining arms control treaty between the US and Russia.
 2. The New START treaty is the successor to the START-I, which was signed between the US and the erstwhile USSR in 1991.Choose the correct answer from the options given below
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
4. India does not have 2+2 dialogue with which of the following countries?
 - (a) USA
 - (b) South Korea
 - (c) Japan
 - (d) Australia
5. Which of the following countries are **NOT** the founding members of ASEAN?
 1. Philippines

2. Singapore
3. Myanmar
4. Indonesia
5. Vietnam
- (a) 1, 2 and 4 only
- (b) 2, 3 and 4 only
- (c) 3 and 5 only
- (d) 1, 2 and 3 only

6. Consider the following statements regarding India-Japan bilateral relations:

1. Japan, for the first time in 2022 participated in the “MILAN” multilateral naval exercise organised by the Indian Navy.
2. A group of Buddhist monks from Japan planned to walk over 1,100 kilometres through the Buddhist circuit to mark 50 years of diplomatic relations between the two countries.

Which of the statements given above is/are correct?

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

7. Consider the following pairs:

Countries	Disaster Relief Operations
1. Sri Lanka	Rainbow
2. Indonesia	Gambhir
3. Maldives	Castor

Which of the above pair is/are correctly matched?

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

8. With reference to the Paris Club, often seen in the news, consider the following statements:

1. It is an informal group of mostly western creditor countries.
2. The members of the Paris Club are also members of the Organisation for Economic Co-operation and Development (OECD).

Which of the statements given above is/are correct?

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

EXPLANATIONS

1. (c)

Statement 1 is correct: Saudi Arabia unveiled its latest grand plan to transform its capital city Riyadh called the **Mukaab – “cube” in Arabic**. The Mukaab will be built using the **modern Najdi architectural style** – a twist on the traditional Najdi architectural style from the **Najd region** in the centre of the Arabian peninsula.

Statement 2 is not correct: Najdi architecture is one of the **most prevalent architectural patterns** in Saudi Arabia.

Statement 3 is correct: Najdi architecture combines three main factors: The need to respond to the hot desert climate, the need for privacy in residential buildings, and the need to use locally available materials such as mud brick, stone and wood.

- In contemporary adaptations, Najdi buildings are characterized not only by traditional materials, but also their use of **thermal and environmental elements**.

2. (d)

Option d is correct: The ADMM-Plus is a platform for ASEAN and its eight Dialogue Partners Australia, China, India, Japan, New Zealand, Republic of Korea, Russia and the United States (collectively referred to as the “Plus Countries”), to strengthen security and defence cooperation for peace, stability, and development in the region. The Inaugural ADMM-Plus was convened in Ha Noi, Viet Nam,

3. (c)

Statement 1 is correct: It is the last remaining arms control treaty between the world's two main nuclear powers, US and Russia.

Statement 2 is correct: This New START treaty is the successor to the START-I, which was signed between the US and the erstwhile USSR in 1991, and came into force in 1994. START-I was replaced first by the **Strategic Offensive Reductions Treaty (SORT, also known as the Treaty of Moscow)**, and then by the **New START treaty**.

4. (b)

Option b is correct: India has 2+2 dialogues with four key strategic partners: the US, Australia, Japan, and Russia. It is an institutional mechanism between the two countries where the defence/foreign ministers or secretaries meet with their counterparts from another country on strategic and security issues. Besides Russia, US, Australia and Japan are also India's partners in the Quad.

5. (c)

Option c is correct: The Association of Southeast Asian Nations, or ASEAN, was established on 8 August 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (Bangkok Declaration) by the founding members of ASEAN, namely Indonesia, Malaysia, Philippines, Singapore and Thailand. After

five founding members Brunei Darussalam joined on 7 January 1984, Viet Nam on 28 July 1995, Lao PDR and Myanmar on 23 July 1997, and Cambodia joined on 30 April 1999, making up what is today the ten Member States of ASEAN.

6. (a)

MILAN 2022 & Indo-Pacific theatre

- MILAN 2022 witnessed the first-ever participation by not just Japan but all the Quad nations, as well as France and South Korea. **Hence statement 1 is correct.**
 - MILAN is a biennial, multilateral naval exercise that started in 1995.

A walking pilgrimage through Buddhist circuit

- **About:**
 - A group of 108 Buddhist monks from South Korea will walk over 1,100 kilometres in the next 43 days, from February 9 to March 23. **Hence statement 2 is incorrect.**
- **Marking the 50 years of diplomatic relations:**
 - Organised by the Sangwol Society of South Korea, the pilgrimage marks 50 years of diplomatic relations between the two countries.
- **Path for the walk:**
 - The monks will trace the Buddha's footsteps and life journey in India.
 - The walking pilgrimage will **begin from Sarnath in Varanasi** and **culminate at Shravasti** after traversing through Nepal.

7. (c)

In News: Recently, India dispatched Indian Air Force (IAF) C-17 Globemaster transport aircraft with relief material, a 30-bed field hospital, and rescue and medical personnel to Turkey as part of its **Humanitarian And Disaster Relief (HADR)** efforts to assist earthquake-hit Turkey and Syria.

- India's disaster relief is not only restricted to the immediate neighbourhood or the South Asian region but extends to other parts of the world as well. 'Vasudhaiva Kudumbkam' - the Sanskrit phrase found in Hindu texts - translates into 'the world is one family'.
- India launched relief operations for neighbouring countries: **Operation Castor in Maldives**, and **Operation 'Gambhir'** in Indonesia, **Operation 'Rainbow'** in Sri Lanka.

8. (c)

Both the Statements are correct:

About Paris Club

- The Paris Club is an **informal group of mostly western creditor** countries.
- It **grew from a 1956** meeting in Paris between Argentina and its public creditors.
- Its objective is to find **sustainable debt-relief solutions** for countries unable to repay their bilateral loans.
- The members of the Paris Club are **also members of the Organisation for Economic Co-operation and Development (OECD)**.
- **Members:** Australia, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Israel, Japan,

Netherlands, Norway, Russia, South Korea, Spain, Sweden, Switzerland, the United Kingdom and the United States.

- Since its inception, the Paris Club has **reached 478 agreements** with 102 different debtor countries, with a total treated **debt of \$614 billion**.
- The Paris Club operates on the principles of **consensus and solidarity** and any agreement reached with the debtor country applies equally to all Paris Club creditors.
- The club used to be a dominant bilateral lender in the last century, but its importance has diminished with the emergence of China as the world's largest bilateral lender.
- In the case of Sri Lanka, **China, Japan, and India** are the largest bilateral creditors, with Japan being a member of the Paris Club.

SCIENCE & TECHNOLOGY

1. With reference to the Organ-on-a-chip (OoC), consider the following statements:
 1. It involves biomaterial technology, cell biology, and engineering combined together in a miniaturized platform.
 2. It can be used in drug discovery for personalized medicine.Which of the statements given above is/are correct?
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
2. Which of the following best describes "*Anopheles Stephensi*", which was recently in the news?
 - (a) Marine species with potential therapeutic implications.
 - (b) A deadly malaria vector from Asia.
 - (c) Invasive tree species predominantly found in South Indian protected areas.
 - (d) Specie found in Kelp Forests
3. Commonly heard micro-organisms like Lactobacillaceae, Bifidobacteriaceae, and Veillonellaceae serve which of the following functions:
 - (a) They are Microorganisms that play a very important role in maintaining the fertility of the soil.
 - (b) They are part of the gut microbiome, which plays an important role in maintaining a healthy lifestyle.
 - (c) They are used in the manufacturing of vitamin B12.
 - (d) They are used in the commercial preparation of wines.
4. Lead, ingested or inhaled, is a health hazard. What are the major sources of lead poisoning?
 1. Smelting units
 2. Pens & pencils
 3. Paints
 4. Hair oils and cosmeticsselect the correct answer using the codes given below:
 - (a) 1, 2 and 3 only
 - (b) 1 and 3 only
 - (c) 2 and 4 only
 - (d) 1, 2, 3 and 4
5. Consider the following statements:
 1. Swine Flu is caused by the H5N1 subtype of influenza virus.
 2. Aquatic birds are the primary natural reservoir for the avian influenza virus.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 and 2

6. With reference to the Sickle Cell Anemia, consider the following statements:

1. India targets to eliminate the sickle cell Anaemia condition in a mission mode by 2030.
2. In sickle cell Anaemia condition RBCs become hard and sticky and look like a C-shaped farm tool called a “sickle.”

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 and 2

7. Which of the following statements is/are correct regarding Leprosy?

1. It is a chronic bacterial infection also known as Hansen’s disease.
2. World Leprosy Day is observed globally on the last Sunday of January each year.

Choose the correct answer from the options given below

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

8. Which of the following statements is/are correct regarding Monkeypox?

1. It is a zoonotic bacterial disease with symptoms similar to smallpox.
2. The main difference between symptoms of smallpox and monkeypox is that the latter causes lymph nodes to swell (lymphadenopathy) while smallpox does not.

Choose the correct answer from the options given below

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

9. Consider the following statements:

1. Asteroid belt is situated between Mars and Jupiter.
2. Meteoroids are small fragments of rock created by asteroid collisions.

Which of the given above statements is/are correct?

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

- 10.** Consider the following statements:
1. Under standard conditions, it is the least dense metal and the least dense solid element.
 2. Inferred resources of this metal were recently discovered in the Reasi district of Jammu & Kashmir.
 3. It is utilised for manufacturing batteries for electronic devices
- The statements given above are related to which of the following metals?
- (a) Zinc
 - (b) Europium
 - (c) Led
 - (d) Lithium
- 11.** In the context of Lymphatic Filariasis, consider the following statements:
1. It is only transmitted by Culex Mosquito.
 2. It is a neglected tropical disease.
- Which of the given above statements is/are correct?
- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
- 12.** Which of the following are the advantages of the Small Satellite Launch Vehicle (SSLV)?
1. It is perfectly suited for launching multiple microsatellites at a time.
 2. It supports multiple orbital drop-offs.
 3. It will be an on-demand vehicle.
- Select the correct answer using the code given below:
- (a) 1 and 2 only
 - (b) 1 and 3 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3
- 13.** Consider the following statements:
1. NISAR is an Earth-observation satellite.
 2. It is Jointly developed by the National Aeronautics and Space Administration (NASA) and the Indian Space Research Organisation.
- Which of the given above statements is/are correct?
- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
- 14.** Consider the following statements:
1. Muons are sometimes referred to as 'God's Particle'.

2. Muography technique was first used to search for hidden chambers in the Pyramid of Khafre, Giza.
3. Muography is conceptually similar to X-ray but is less efficient.

Which of the statements given above are **not correct**?

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

15. Consider the following pairs:

Technology	Features
1. Augmented Reality	Overlaid digital images onto the real world
2. Virtual Reality	blends real and virtual worlds
3. Extended Reality	interaction only with virtual world

Which of the pair given above is/are correctly matched?

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

EXPLANATIONS

1. (c)

In News: The FDA Modernization Act 2.0, signed by President Biden, allows clinical trial leaders to use animal trial alternatives instead of traditional animal modeling for drug and biological development. The move is expected to boost the research and development of **organ chips**.

Statements 1 and 2 are correct: Organ on a chip refers to a micro-engineered biomimetic system that reflects the structural and functional characteristics of human tissue.

- It can replicate key aspects of human physiology, providing insights into the studied organ function and disease pathophysiology.
- It involves biomaterial technology, cell biology, and engineering combined together in a miniaturized platform.
- It has attracted substantial interest in recent years due to its numerous applications, especially in **precision medicine, drug development, and screening**.
- It can replicate key aspects of **human physiology, providing insights** into the studied organ function and disease pathophysiology.
- Moreover, these can accurately be used in **drug discovery for personalized medicine**.

2. (b)

Asian malaria vector- Anopheles Stephensi

- **Origin:** Anopheles Stephensi originated in Southeast Asia, West Asia and the Arabian Peninsula.
- **Characteristic features:**
 - The species is reported to spread faster in different climatic conditions, especially in countries experiencing rapid urban development through devolution, like Kenya, with spiralling population growth rates in towns and concentration of malaria control programmes in rural areas.
 - It also poses a significant threat because, unlike other main malaria-causing mosquito vectors that primarily breed in rural areas, Anopheles Stephensi is highly adaptive and can thrive in urban environments.
- **In news:**
 - Malaria vector from Asia Anopheles Stephensi has recently been **detected in Kenya** which is likely to stifle Kenya's massive progress in the fight against malaria.
 - **Kenya is now the sixth and latest country in Africa** to report an invasion of the deadly malaria species.

3. (b)

Option B is correct: Lactobacillaceae, Bifidobacteriaceae, and Veillonellaceae are bacteria found in the gut microbiome.

- **Functions:**
 - Help the body maintain a healthy community of microorganisms

- Produce substances that have desirable health effects
- Influence the body's immune response.
- They are found to be in higher abundance in the guts of children with autism spectrum disorders

4. (b)

Option b is correct: Lead poisoning can have severe physical and developmental impacts, including anaemia, developmental delays, and damage to the nervous system. Once lead enters the bloodstream, it goes directly to the brain, making it particularly harmful for children. Major sources of lead exposure include lead-based paints, lead batteries, contaminated soil and water, and occupational exposure in industries such as mining, smelting, and battery recycling.

5. (b)

Statement 1 is not correct: Depending on the origin host, influenza A viruses can be classified as avian influenza (bird flu, subtypes A H5N1 and A H9N2), swine influenza (swine flu, subtypes A H1N1 and AH3N2).

Statement 2 is correct: Aquatic birds are the primary natural reservoir of Avian influenza, most cause asymptomatic or mild infection in birds. Bird flu viruses do not usually infect humans, but several cases of human infection with bird flu viruses have occurred since 1997.

6. (b)

Statement 1 is not correct: Recently in Budget 2023-24, the Finance Minister has announced that India will eliminate the sickle cell Anaemia condition in a **mission mode by 2047**.

Statement 2 is correct: Red blood cells (RBCs) contain hemoglobin, a protein that carries oxygen. Healthy red blood cells are round, and they move through small blood vessels to carry oxygen to all parts of the body. In SCD, the hemoglobin is abnormal, which causes the **RBCs to become hard and sticky and look like a C-shaped farm tool called a “sickle.”**

7. (c)

Statement 1 is correct: Leprosy is a chronic bacterial infection, which affects the skin, nerves, lungs and eyes. Also known as Hansen’s disease, it is caused by the Mycobacterium leprae bacteria.

Statement 2 is correct: World Leprosy Day is observed globally on the last Sunday of January each year.

8. (b)

Statement 1 is not correct: It is a zoonotic **viral disease** with symptoms similar to smallpox but is less contagious. The first case of monkeypox was reported in 1958 in monkeys and in humans in 1970 in western Africa. Nigeria witnessed the biggest outbreak of the disease in 2017.

Thereafter, the disease has been reported in many countries including the USA, Singapore, UK.

Statement 2 is correct: The main difference between symptoms of smallpox and monkeypox is that the latter causes lymph nodes to swell (lymphadenopathy) while smallpox does not.

9. (c)

Statement 1 is correct: Asteroid, also called a minor planet or planetoid, is any of a host of small bodies, about 1,000 km (600 miles) or less in diameter, that orbit the Sun primarily between the orbits of Mars and Jupiter in a nearly flat ring called the asteroid belt.

Statement 2 is correct: Meteoroids are lumps of rock or iron that orbit the sun. Most meteoroids are small fragments of rock created by asteroid collisions. When meteoroids enter Earth's atmosphere (or that of another planet, like Mars) at high speed and burn up, the fireballs or “shooting stars” are called meteors. When a meteoroid survives a trip through the atmosphere and hits the ground, it's called a meteorite.

10. (d)

Lithium

- **About:**

- Lithium is a chemical element with the symbol Li and atomic number 3.
- It is a soft, silvery-white alkali metal.
- Under standard conditions, it is the least dense metal and the least dense solid element.
- Like all alkali metals, lithium is highly reactive and flammable and must be stored in a vacuum, inert atmosphere, or inert liquid such as purified kerosene or mineral oil.

- **Global reserves:**

- **Chile, Australia, Argentina, Bolivia and China** contain most of the reserves discovered so far globally.

- **In India:**

- 5.9 million tonnes inferred resources of lithium were discovered in the Salal-Haimana area of Reasi district, Jammu & Kashmir, by the Geological Survey of India.

11. (b)

Statement 1 is not correct: Lymphatic filariasis is transmitted by **different types of mosquitoes** for example by the **Culex mosquito**, widespread across urban and semi-urban areas, **Anopheles**, mainly found in rural areas, and **Aedes**, mainly in endemic islands in the Pacific.

Statement 2 is correct: Lymphatic filariasis, commonly known as elephantiasis, is a **neglected tropical disease**. Infection occurs when filarial parasites are transmitted to humans through mosquitoes. Infection is usually acquired in childhood causing hidden damage to the lymphatic system.

12. (d)

Advantages of SSLV

- **Multiple satellites & multiple drop-offs:**

- SSLV is perfectly suited for launching multiple microsatellites at a time and supports multiple orbital drop-offs. **Hence options 1 and 2 are correct.**
 - SSLV is capable of launching Mini, Micro, or Nanosatellites (10 to 500 kg mass) to a 500 km planar orbit.

- **Development of commercial Market:**
 - The new vehicle was developed to capture the emerging small and micro satellite commercial market, with launches offered on demand.
 - The launch of small satellites has until now been dependent on 'piggy-back' rides with big satellite launches on ISRO's work-horse
- **Less time, manpower & cost-effective:**
 - It will take only 72 hours to integrate, unlike the 70 days taken now for a launch vehicle.
 - Only six people will be required to do the job, instead of 60 people.
 - So, the entire job will be done in a very short time and the cost will be only around Rs 30 crore.
 - It will be an on-demand vehicle. **Hence option 3 is correct.**

13. (c)

Both the statements are correct: NISAR is an Earth-observation satellite that stands for (NASA-ISRO Synthetic Aperture Radar) which is Jointly developed by the National Aeronautics and Space Administration (NASA) and the Indian Space Research Organisation under a partnership agreement signed in 2014. It also uses synthetic aperture radar (SAR), to produce high-resolution images.

14. (c)

Statement 1 is not correct - Muons are subatomic particles raining from space. They are created when the particles in Earth's atmosphere collide with cosmic rays. Muons are similar to electrons but weigh **more than 207 times as much**, equivalent to the difference between an adult person and a small elephant. Therefore, they are sometimes called "**fat electrons**". **Higgs Boson is known as God's Particle.**

Statement 2 is correct - Muography (or muon radiography) is a technique that exploits the **penetration capability of muons**. The measurement of their absorption in matter allows the imaging of the **inner structure of large bodies**. The **technique was first** used in the **late 1960s**, when Nobel Laureate and US experimental physicist Luis Alvarez joined hands with Egyptologists to search for **hidden chambers in the Pyramid of Khafre, Giza**.

Statement 3 is not correct - Muography is conceptually similar to X-ray but **capable of scanning much larger and wider structures**, owing to the penetration power of muons.

15. (a)

Pair 1 is correct: In augmented reality, virtual information and objects are overlaid on the real world. This experience enhances the real world with digital details

Pair 2 is not correct: in virtual reality, users are fully immersed in a simulated digital environment.

Pair 3 is not correct: Extended reality (or XR) is an umbrella term for computer-generated environments that merge the physical and virtual worlds.

ENVIRONMENT & ECOLOGY

1. Which of the following statements is **not** correct regarding the Forest Advisory Committee (FAC) that was recently in the news?
1. It is a non-statutory executive body set up by the Environment Ministry.
 2. It examines and authorises the diversion of forest land for projects.
 3. It meets at least once a month.
- Select the correct answer using the code given below:
- (a) 1 only
 - (b) 1 and 2 only
 - (c) 2 and 3 only
 - (d) 3 only
2. With reference to millets, consider the following statements:
1. Millets are highly tolerant to drought and other extreme weather conditions.
 2. Millets have high Glycemic Index (GI).
 3. They were rebranded as nutri cereals in 2018.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only
 - (b) 2 and 3 only
 - (c) 1 and 3 only
 - (d) 1, 2 and 3.
3. Which of the following statements is correct regarding the Tapanuli orangutan?
- (a) It is a new specie of orangutan that was announced in November 2017.
 - (b) It is categorised as a specie of "Least concern (LC)" by IUCN.
 - (c) Apart from Sumatra in Indonesia it is also found in Andaman and Nicobar islands in India.
 - (d) All are correct
4. Consider the following statements:
1. The Great Backyard Bird Count (GBBC) launched in 1998 was the first online citizen-science project.
 2. Bird Count India organises the GBBC in India.
- Which of the statements given above is/are correct?
- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
5. With reference to the Pangolins, consider the following statements:
1. Indian Pangolin is widely distributed in the arid regions of India.
 2. All species of Pangolins are found in India and are categorised as Critically endangered under the IUCN Red List.

Which of the statements given above is/are correct?

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

6. With reference to the River Cities Alliance, consider the following statements:

- 1. It is a dedicated platform for river cities to discuss and exchange information for the sustainable management of rivers.
- 2. It includes cities from only Ganga basin states.

Which of the given above statements is/are correct?

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

7. Which of the following statements is not correct regarding 'Senna Spectabilis'?

- (a) It is a plant species of the legume family.
- (b) They are also known as the golden wonder tree.
- (c) In India, it is found in Nilgiri Biosphere Reserve (NBR).
- (d) It is a critically endangered plant species widely exploited for medicinal usage.

8. Which of the following statements is/are correct regarding Renewable energy in India ?

- 1. India has a total installed electricity capacity of over four lakh MW.
- 2. India is the world's largest producer of renewable energy, with one third of its installed electricity capacity coming from non-fossil fuel sources.

Choose the correct answer from options given below

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

9. India contributes to nearly half of the total mangrove cover in South Asia, In this context Mangrove forests have been distributed in which of the following states?

- 1. Maharashtra
- 2. Odisha
- 3. Andhra Pradesh
- 4. Goa
- 5. Kerala

Select the correct answer using the codes given below.

- (a) 1, 2, and 3 Only
- (b) 1, 3, and 4 Only
- (c) 2, 4 and 5 Only
- (d) 1, 2, 3, 4 and 5

- 10.** Consider the following statements:
1. Ethanol is a biofuel that is made by fermenting sugarcane only.
 2. India's Ethanol Blended Petrol (EBP) programme aims to achieve 20% blending of ethanol by 2025.
- Which of the statements given above is/are correct?
- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
- 11.** Consider the following statements:
1. India stands 4th globally in Renewable Energy Installed Capacity (Excluding Large Hydro).
 2. India has reached the 2030 target of ensuring 40% installed capacity in non-fossil sources by 2021.
- Which of the statements given above is/are correct?
- (a) 1 Only
 - (b) 2 Only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
- 12.** Consider the following pairs:
- | | Ramsar site | State |
|----|--------------------------------|--------------|
| 1. | Kanjirankulam Bird Sanctuary | Kerala |
| 2. | Shallbugh Conservation Reserve | UT of J&K |
| 3. | Koonthankulam Bird Sanctuary | Tamil Nadu |
- Which of the pair given above is/are correctly matched?
- (a) 1 only
 - (b) 2 and 3 only
 - (c) 1 and 2 only
 - (d) 1, 2 and 3
- 13.** MISHTI initiative that was recently in news primarily focuses on which of the following?
- (a) GI products and handicrafts
 - (b) Mangroves conservation
 - (c) 3D printing
 - (d) Food processing
- 14.** With reference to IFFCO Nano Urea, consider the following statements:
1. It is the only Nano fertilizer approved by the Government of India and included in the Fertilizer Control Order (FCO).
 2. It is a nanotechnology-based revolutionary Agri-input that provides nitrogen to plants.

Which of the statements given above is/are correct?

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

15. “PM PRAMAN” initiative that was recently in news primarily focuses on which of the following?

- (a) To promote alternative fertilizers and balanced use of chemical fertilizers.
- (b) To encourage agri-startups by young entrepreneurs in rural areas.
- (c) To skill the youth for international opportunities.
- (d) To improve the quality, scale and reach of the products made by traditional artisans.

EXPLANATIONS

1. (a)

Forest Advisory Committee (FAC)

- The FAC is a statutory body **constituted under the Forest (Conservation) Act, 1980** to advise the government on granting approvals for forest clearance. **Hence statement 1 is incorrect.**
- The FAC is an expert body that examines and authorises diversion of forest land for projects. **Hence statement 2 is correct.**
- It **meets at least once a month** to discuss proposals from an agenda pre-published by the ministry which also uploads the minutes of FAC meetings on its designated website. **Hence statement 3 is correct.**

2. (c)

Statement 1 is correct: Millets are group of small-grained cereal food crops that are **highly tolerant to drought and other extreme weather conditions** and require **low chemical inputs** such as fertilizers and pesticides.

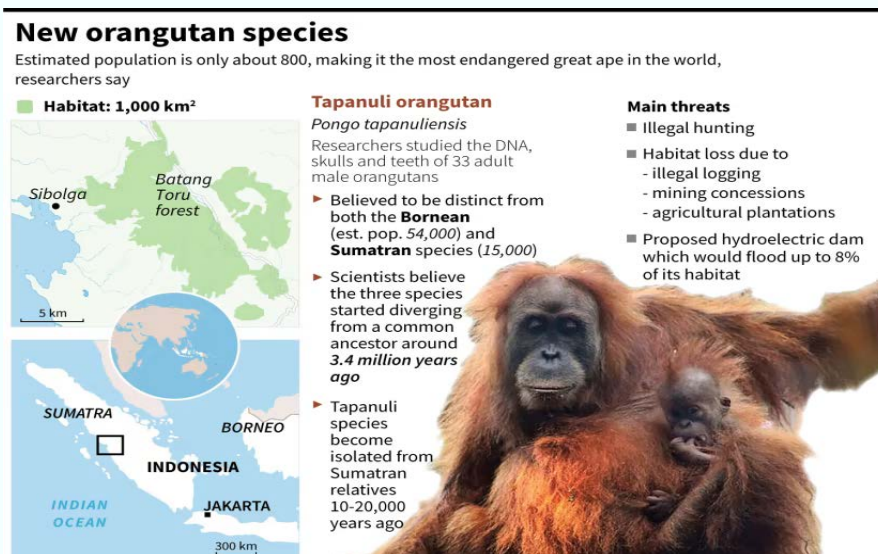
Statement 2 is not correct: Millets are also gluten-free; **low in Glycemic Index (GI)**; and rich in dietary fibre and micronutrients, including calcium, iron, phosphorus etc.

Statement 3 is correct: In order to enhance awareness and promote millets, in 2018, millets were rebranded as “**Nutri Cereals**” and “2018” was designated as the **National Year of Millets**.

3. (a)

Tapanuli orangutan

- Tapanuli orangutan:
 - A third species of orangutan was announced in November, 2017. With no more than 800 individuals in existence, the Tapanuli orangutan is the most endangered of all great apes.
 - The Tapanuli orangutan is a species restricted to South Tapanuli in the island of Sumatra in Indonesia.



4. (c)

Both statements 1 and 2 are correct - The GBBC was **launched in 1998** by the Cornell Lab of Ornithology and National Audubon Society and was the **first online citizen-science project** (also referred to as community science) to collect data on wild birds **and to display results in near real-time**. **Bird Count India** organises the GBBC in the country.

5. (d)

Both statements are not correct: Pangolins are **scaly mammals that eat ants, termites and larvae**. They are one of the most trafficked mammals in Asia. Pangolins are in high demand in countries like China and Vietnam. Their **meat is considered a delicacy** and pangolin scales are used in **traditional medicine** and folk remedies.

- Out of the eight species of pangolin, the Indian Pangolin and the Chinese Pangolin are found in India.
- **Habitat:**
 - Indian Pangolin is widely distributed in India, except in the arid region, high Himalayas and the North-East. The species is also found in Bangladesh, Pakistan, Nepal and Sri Lanka.
 - Chinese Pangolin is found in the Himalayan foothills in Eastern Nepal, Bhutan, Northern India, North-East Bangladesh and through Southern China.
- **Protection Status:**
 - IUCN Red List
 - Indian Pangolin: Endangered
 - Chinese Pangolin: Critically Endangered
 - Both these species are listed under Schedule I, Part I of the Wildlife (Protection) Act, 1972.
 - Appendix I of the International Convention of Trade in Endangered Species (CITES)

6. (a)

Statement 1 is correct: River Cities Alliance (RCA) was launched in 2021 as a **dedicated platform** for river cities across India to discuss & exchange information for sustainable management of urban rivers.

Statement 2 is not correct: It includes cities from both the **Ganga basin and non-Ganga basin states**. River Cities Alliance is a first-of-its-kind Alliance in the world, symbolising the successful partnership of the two Ministries i.e., the Ministry of Jal Shakti and the Ministry of Housing and Urban Affairs. The Alliance focuses on **three broad themes- Networking, Capacity Building and Technical Support**.

7. (a)

Senna spectabilis

- About:
 - Senna spectabilis is a plant species of the legume family. Hence option (a) is correct.
- Characteristics:
 - It is a **shrub or deciduous tree** that can grow anywhere from 15 to 20 ft in height and 15–20 ft in width.
 - They are **also known as the golden wonder trees**. Hence option(b) is correct

- Introduction in forests:
 - o The specie was initially introduced for resources such as firewood as well as to help combat deteriorating ecosystems affected by deforestation and desertification.
- Invasive alien species:
 - o Currently, *S. spectabilis* is **overtaking native tree species of forestry ecosystems** around the world because of its ability to grow quickly.
 - o The plant has become an invasive alien species in **parts of Africa** such as Kenya, Malawi, Tanzania and Uganda along with **South India**.
 - o The rapid growth of *Senna spectabilis* has recently posed a serious threat to Nilgiri Biosphere Reserve (NBR). **Hence option (c) is correct and (d) is incorrect.**

8. (a)

Statements 1 is correct: India is a power surplus nation with a total installed electricity capacity of over Four lakh MW.

Statement 2 is not correct: Today, India is the world's third largest producer of renewable energy, with 40 percent of its installed electricity capacity coming from non-fossil fuel sources.

9. (d)

In News: A seven-km undersea tunnel will be constructed for the bullet train project to save mangrove forests in Maharashtra.

West Bengal, the home to Sundarbans, has the highest percentage of mangrove cover in India. Spread over India and Bangladesh the Sundarbans is also the single largest mangrove forest in the world.

Gujarat and Andaman, and Nicobar islands, Maharashtra, Odisha, Andhra Pradesh, Tamil Nadu, Goa, and Kerala too have mangrove forests.

10. (b)

Statement 1 is not correct: Ethyl alcohol or Ethanol (C_2H_5OH) is a biofuel that is naturally made by fermenting sugar. While it is mostly derived by extracting sugar from sugarcane, other organic matter like foodgrains can also be used for its production.

Statement 2 is correct: As part of its carbon reduction commitments, India has launched the Ethanol Blended Petrol (EBP) programme to mix this biofuel with petrol to reduce the consumption of fossil fuel. Earlier, the government announced the achievement of E10 target, that is, the petrol used in the country has 10% ethanol in it. Later on, the **"Roadmap for Ethanol Blending in India 2020-25"** laid out an annual plan to increase domestic ethanol production in line with target of the **amended National Policy on Biofuels (2018)** and it's Ethanol Blended Petrol (EBP) Programme to reach a blending of **20% of ethanol in petrol (E20) by 2025/26.**

11. (b)

In News: Based on observations and climate projections, the Team from IIT Gandhinagar studied the hydroclimatic changes in the catchment areas and their implications for hydropower generation in 46 major dams located in the north, central, and south India.

Statement 1 is not correct: India stands **4th globally in Renewable Energy Installed Capacity (including Large Hydro)** 4th in Wind Power capacity & 4th in Solar Power capacity (as per REN21 Renewables 2022 Global Status Report).

Statement 2 is correct: India ranked among the top five in the Global Climate Change Performance Index and **has reached the 2030 target of ensuring 40%** installed capacity in non-fossil sources by 2021.

The current capacity of non-fossil sources is 42%

12. (b)

Pair 1 is not correct: Kanjirankulam Bird Sanctuary is a Protected area near Mudukulathur Ramanathapuram District, Tamil Nadu. The wetland supports IUCN RedList vulnerable avian species like River Tern.

Pair 2 is correct: Shallabug Wetland Conservation Reserve is located in the District Srinagar, UT of J&K. As a major natural floodplain system it serves as an abode to more than four lakh resident and migratory birds of at least 21 species.

Pair 3 is correct: Koonthankulam Bird Sanctuary in Tamilnadu is the largest reserve for breeding resident and migratory waterbirds in South India.

13. (b)

MISHTI, 'Mangrove Initiative for Shoreline Habitats & Tangible Incomes'

The MISHTI, 'Mangrove Initiative for Shoreline Habitats & Tangible Incomes,' comes after India joined the Mangrove Alliance for Climate launched during the 27th Conference of Parties (COP27) to the United Nations Framework Convention on Climate Change held in Egypt in November 2022. Under the initiative, mangrove plantation will be taken up along the country's coastline and salt pan lands.

14. (c)

In News: Union Home and Cooperation Minister will reach Deoghar in Jharkhand to lay the foundation stone of the IFFCO nano urea liquid fertiliser plant in Jasidih.

Statements 1 and 2 are correct: IFFCO Nano Urea is the only **Nano fertilizer** approved by the Government of India and included in the **Fertilizer Control Order (FCO)**.

- It is developed and Patented by IFFCO.
- It is a **nanotechnology**-based revolutionary Agri-input that provides nitrogen to plants. Nano Urea is a sustainable option for farmers towards smart agriculture and combats climate change.
- Nano urea is non-toxic, safe for the user; safe for flora and fauna but it is recommended to use a face mask and gloves while spraying on the crop.

15. (a)

PM-PRANAM:

"PM Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth" (PM-PRANAM) to be launched to incentivize States and Union Territories **to promote alternative fertilizers and balanced use of chemical fertilizers.**

MISCELLANEOUS

1. Consider the following statements:
 1. FSSAI has been established under Food Safety and Standards , 2006.
 2. The Ministry of Food Processing Industries, Government of India is the Administrative Ministry for the implementation of FSSAI.Which of the statements given above is/are correct?
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
2. Which of the following statements is/are correct about reforms regarding Aero India Show 2023?
 1. The Aero India show is held every 2 years.
 2. Theme of Aero India 2023 was “The runway to a billion opportunities”.Choose the correct answer from options given below
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
3. Consider the following statements regarding “Startup20 Engagement Group”:
 1. The group is India's innovation to the G20 movement.
 2. It is proposed under India’s presidency at G20.
 3. It will replace the existing B20 Engagement Group.Select the correct answer using the code given below:
 - (a) 1 and 2 only
 - (b) 2 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3
4. WHO’s GLASS initiative primarily addresses which of the following?
 - (a) Transparency in COVID Vaccination
 - (b) Sexually transmitted diseases (STDs)
 - (c) Antimicrobial Resistance
 - (d) Tuberculosis
5. In the context of BIMARU states, consider the following statements:
 1. The BIMARU acronym has been used to refer to Bihar, Meghalaya, Assam, Rajasthan, and Uttar Pradesh.
 2. In 2010, the average Total Fertility Rate (TFR) of BIMARU states was more than 3.0.

Which of the given above statements is/are correct?

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

6. Which of the following statements is/are correct regarding the Global Quality Infrastructure Index (GQII)?

- 1. It is a joint initiative of the World Economic Forum and the World Trade Organization.
- 2. It ranks the 184 economies in the world on the basis of quality infrastructure (QI).
- 3. Its' rankings are published and presented post-facto for each year based on the data collected till the end of that year.

Select the correct answer using the codes given below.

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

7. With reference to Particularly Vulnerable Tribal Groups (PVTGs), consider the following statements:

- 1. They were constituted on the recommendation of the Dhebar Committee in 1975.
- 2. Madhya Pradesh has the highest number of PVTGs.
- 3. They have the Pre-agricultural level of technology.
- 4. They have a declining or stagnant population.

Which of the statements given above are correct?

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

8. Which of the following are Publications of The International Monetary Fund (IMF) ?

- 1. Global Financial Stability Report
- 2. Regional Economic Outlook
- 3. Global Economic Prospects
- 4. Poverty and Shared Prosperity Report

Select the correct answer using the code given below:

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

9. Which of the following organisations publish the 'World Social Protection Report?

- (a) The United Nations Development Programme
- (b) International Labour Organization

- (c) Institute for Economics and Peace
- (d) Global Entrepreneurship and Development Institute

- 10.** Which of the following statements is/are correct regarding the Railway Protection Force (RPF)?
1. Constituted as a federal Force in the year 1957, RPF is responsible for security of railway property, passenger and passenger zones.
 2. RPF has the distinction of being the federal force of India with the largest share of women in its ranks.

Choose the correct answer from options given below

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

EXPLANATIONS

1. (a)

Statement 1 is correct: FSSAI has been established under **Food Safety and Standards , 2006** which **consolidates various acts & orders** that have hitherto handled food related issues in various Ministries and Departments.

Statement 2 is not correct: **The Ministry of Health & Family Welfare**, Government of India is the **Administrative Ministry** for the implementation of FSSAI.

2. (c)

Statements 1 is correct: Aero India is a premier global aviation trade fair, which provides an opportunity for the Indian aviation-defence industry, including the aerospace industry, to showcase its products, technologies and solutions to the national decision makers. The Aero India show is held every 2 years. It was held by Hindustan Aeronautics Limited (HAL) this year on behalf of the Department of Defence Production of the Ministry of Defence. The first edition of the air show was held in 1996.

Statement 2 is correct: Theme of Aero India 2023 was “The runway to a billion opportunities”.

3. (a)

Startup20 Engagement Group

- **About:**

- The Startup 20 Engagement Group is a new addition to the G20 engagement groups proposed under India’s presidency. **Hence statement 2 is correct.**
 - The group is India's innovation to the G20 movement, it's the first engagement group which drives **technology, innovation, and the start of movement**. **Hence statement 1 is correct.**

- **Aim:**

- The group aims to create a global narrative for supporting startups and enabling synergies between startups, corporates, investors, innovation agencies and other key ecosystem stakeholders.

- **Functioning along the B20 Engagement Group:**

- In the new architecture, while the existing **B20 Engagement Group** continues its focus on corporations, the **Startup20** takes on the policy issues concerning the global startup ecosystem, with the necessary linkages between the two groups. **Hence statement 3 is incorrect.**

4. (c)

Option c is correct: WHO Global Antimicrobial Resistance and Use Surveillance System (GLASS)

- Antimicrobial resistance (AMR) represents a major threat to human health with significant global economic and security implications.
- GLASS provides a standardized approach to the collection, analysis, interpretation and sharing of data by countries and seeks to actively support capacity building and monitor the status of existing and new national surveillance systems.

- Furthermore, GLASS promotes a shift from surveillance approaches based solely on laboratory data to a system that includes epidemiological, clinical, and population-level data.

5. (b)

Statement 1 is not correct: The 'BIMARU' acronym has been used to refer to **Bihar, Madhya Pradesh, Rajasthan, and Uttar Pradesh**, to imply they have lagged in terms of economic growth, healthcare, and education.

Statement 2 is correct: The BIMARU states have some of the highest fertility rates in India. In 2010, the total fertility rate was 3.9 for Bihar, 3.5 for Uttar Pradesh, 3.2 for Madhya Pradesh, and 3.1 for Rajasthan **averaging 3.42 for BIMARU states, compared to 2.5 for India as a whole**. This leads to higher population growth in these states than the rest of India.

6. (c)

Statement 1 is not correct: The GQII program is an initiative of the independent consulting firms **Mesopartner and Analytical** to research and disseminate data on Quality Infrastructure.

- Quality Infrastructure means the international system of metrology, standardization, accreditation, and quality-related services (testing, calibration, inspection, verification, training, and awareness building).
- It creates confidence in international trade and contributes to the protection of consumers and the environment.

Statements 2 and 3 are correct: The GQII ranks the 184 economies in the world on the basis of quality infrastructure (QI).

- **GQII rankings** are published and presented post-facto for each year based on the data collected till the end of that year.
- The GQII is a database and ranking that allows interested persons to compare the quality infrastructure of different countries worldwide.

7. (c)

Statement 1 is correct: Particularly Vulnerable Tribal Groups or PVTG, as identified by the Centre, are those that depend on hunting for food, have pre-agriculture level technologies, zero or negative population growth, and extremely low levels of literacy. On the recommendation of the Dhebar Commission, the Central government began to identify the most vulnerable tribal groups as a separate category in 1975, establishing 52 such groups. The list was expanded in 1993, when another 23 groups were added, for a total of 75 PVTGs out of 705 Scheduled Tribes spread across 17 states and one Union Territory (UT) in the country (2011 census).

Statement 2 is not correct: For a total of 75 PVTGs out of 705 Scheduled Tribes spread across 17 states and one Union Territory (UT) in the country (2011 census), **the highest number being found in Odisha**.

Statement 3 and 4 is correct: The Particularly Vulnerable Tribal Groups (PVTGs) are those that depend on hunting for food, have pre-agriculture level technologies, zero or negative population growth, and extremely low levels of literacy and are in need of greater support and development.

Following is the criteria for the identification of PVTGs:

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

8. (a)

In News: The International Monetary Fund (IMF) released the January update of its World Economic Outlook. The International Monetary Fund (IMF) works to achieve sustainable growth and prosperity for all of its 190 member countries.

- It does so by supporting economic policies that promote financial stability and monetary cooperation, which are essential to increase productivity, job creation, and economic well-being.

Major Publications

- World Economic Outlook
- **Global Financial Stability Report**
- Fiscal Monitor
- **Regional Economic Outlook**
- Annual Report of the Executive Board

9. (b)

Option b is correct: ILO is a specialized agency of the United Nations. It is the only tripartite UN agency, bringing together governments, employers and workers of 187 member States. It sets labour standards, develops policies and devises programmes promoting decent work.

- ILO releases the following reports
 - World Employment and Social Outlook
 - Global Wage Report
 - World Social Protection Report.

10. (c)

Statement 1 is correct: RPF is the prime security and law- enforcement organization in the field of Railway Security in India.

- Constituted as a federal Force in the year 1957, RPF is responsible for security of railway property, passenger and passenger zones.
- RPF motto: “**SEWA HI SANKALP**”- “A PROMISE TO SERVE”.
- It has been implementing innovative solutions suited to the typical needs at the ground-zero level.

Statement 2 is correct: RPF has the distinction of being the federal force of India with the largest share of women in its ranks.