

DAILY MCQs COMPILATION with EXPLANATIONS

June 2024

NEXT IAS



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History, Art & Culture

1. Consider the following description:

'She established her own capital at Maheshwar in Madhya Pradesh and refurbished and reconsecrated several jyotirlingas across India. The word Punyashlok (ruler who frees the people from all kinds of deprivations) is used behind her name.'

Which one of the following is best suited for the above description?

- (a) Jijabai
- (b) Ahilyabai Holkar
- (c) Abbakka Chowta
- (d) Rani Durgavati

2. Consider the following statements with respect to the Asur tribes of India:

- 1. These tribes are mostly prevalent in Himalayan regions and states associated with Himalaya.
- 2. They are among the Particularly Vulnerable Tribal Groups (PVTGs) and use radio for transmitting news and songs.
- 3. The Asur language figures in the list of UNESCO Interactive Atlas of the World's Languages in Danger.

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

3. With reference to *Koya Tribes of India*, consider the following:

- 1. They are one of the Particularly Vulnerable Tribal Groups (PVTGs) residing in Himachal Pradesh.
- 2. They are known as Dorla and Madia in the adjacent Bastar region of Chhattisgarh.

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. With reference to the Vedas, consider the following statements:

- 1. The Rigveda is the oldest known Vedic Sanskrit text.
- 2. Yajurveda is a collection of verses mostly taken from the Rigveda but arranged in a poetic form to facilitate singing.

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. Consider the following statements:

1. Fire worship is mentioned in Rigvedic texts.
2. Rigvedic texts mention the use of Iron.
3. The Atharvaveda is a collection of magic spells and charms to ward off the evil spirits and diseases.

How many of the statements given above are correct?

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

6. With reference to the Chhatrapati Shivaji Maharaj, consider the following statements:

1. His administration was characterized by a centralized system with the king as the head, assisted by the Ashtapradhan council.
2. He reformed the revenue system and abolished the Ryotwari system.

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. With reference to the history of India, who was referred to as '*Dharti Abba or Father of Earth*' by his followers?

- (a) Tirot Sing
- (b) Birsa Munda
- (c) Veer Narayan Singh
- (d) Alluri Sitarama Raju

8. Consider the following statements about the Bhil tribe in India:

1. The Bhils are the largest tribal group in India and are primarily concentrated in the western and central states.
2. They are known for their rich oral tradition, including folklore, songs, and dances, and are skilled in archery and agriculture.
3. The Bhil language belongs to the Indo-Aryan family of languages.

Which of the given above statements is/are correct?

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

9. With reference to the Sarod, consider the following statements:

1. It is a stringed instrument made of coconut shell, tun wood, and ivory.
2. It is prominently used in South Indian classical music for solo concerts.

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. He was involved in the Mainpuri Conspiracy of 1918 and the Kakori Conspiracy of 1925. He founded the Hindustan Republican Association and was hanged for his revolutionary activities in 1927. Which of the following personalities has been described above?
(a) Ram Prasad Bismil
(b) Bhagat Singh
(c) Alluri Seetharama Raju
(d) Udham Singh
11. The festival is associated with the farmers and is also one of the few festivals in India which celebrates menstruation and conveys the message of empowerment against the societal taboos. It is
(a) Magha Saptami
(b) Budi Thakurani Yatra
(c) Chhau Festival
(d) Raja Parba
12. Which of the following statements about festivals in Odisha are correct?
1. Ratha Yatra is the most popular festival in Odisha in terms of footfall and following.
2. Dola Purnima is a festival associated with the worship of Radha and Krishna.
3. Magha Saptami is the biggest festival in Odisha.
Select the correct answer using the code given below:
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3
13. With reference to Indian temples, Consider the following pairs :
- | Temple | : | Region |
|-------------------------|---|-------------------|
| 1. Kheer Bhawani temple | : | Jammu and Kashmir |
| 2. Kamakhya Temple | : | Assam |
| 3. Lingaraj Temple | : | Tamil Nadu |
- How many of the above pairs are correctly matched?
(a) Only one pair
(b) Only two pairs
(c) All three pairs
(d) None of the pairs
14. With reference to the ancient Nalanda University, which of the following statements is/are correct?
1. It was established in the 5th century by the Gupta ruler Skandagupta I.
2. The site after its decline was first discovered by Sir Francis Buchanan.
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

15. Stonehenge, the prehistoric UNESCO World Heritage Site, recently seen in the news is located in
- Italy
 - Germany
 - Denmark
 - England

16. Consider the following statements regarding Mata ni Pachedi:
- It is a traditional art form from Gujarat, inspired by the Kalamkari style of painting.
 - It is practiced exclusively by women of the Vaghari community.
 - The paintings are primarily used for decoration in homes and temples.
 - The central figure in these paintings is usually a male deity.

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

- 1 and 3 only
 - 2 and 4 only
 - 2, 3 and 4 only
 - 1, 2, 3 and 4
17. Consider the following tribes in India:
- Great Andamanese of Strait Island
 - Onges of Little Andaman
 - Jarawas of South and Middle Andaman
 - Sentinelese of Sentinel Islands
 - Shompens of Great Nicobar

How many of the above are the *Particularly Vulnerable Tribal Groups (PVTGs)*?

- Only two
 - Only three
 - Only four
 - All five
18. Who founded All India Bharatiya Jana Sangh?
- V.D Savarkar
 - Madan Mohan Malviya
 - Bipin Chandra Pal
 - Shyama Prasad Mookerjee

19. He was a 15th-century Indian mystic, social reformer and poet. He was one of the most influential saints. He was best known for his two-line couplets. His teachings openly ridiculed all forms of external worship of both Brahmanical Hinduism and Islam. According to him, every life has a relationship with two spiritual principles (Jivatma and Paramatma). His view about the moksha is that it is the process of uniting these two divine principles. He was
- Chaitanya Mahaprabhu
 - Namadeva
 - Tukaram
 - Kabir Das

20. Consider the following statements about Srikakulam:
- It was formerly known as Chicacole during British rule.
 - Salihundam, a Buddhist site in Srikakulam, played a role in the spread of Buddhism to Sumatra.

3. Srikakulam was never a part of the Vijayanagara Empire.

Which of the above statements is/are correct?

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

21. Consider the following Indian cities:

- 1. Kolkata
- 2. Mumbai
- 3. Chennai
- 4. New Delhi
- 5. Varanasi

How many of the above cities are included under the *Creative Cities Network of UNESCO (UCCN)*?

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

22. With reference to the Kamakhya Temple, consider the following statements:

- 1. Kamakhya Temple is one of 51 Shaktipeeths in India that is located atop Nilachal Hills in Assam.
- 2. The Ambubachi Mela is an annual Hindu fair organised at Kamakhya Temple.
- 3. It had been modelled in Dravidian styles of temple architecture.

How many of the statements given above are correct?

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

23. Recently, which of the following Indian cities have been recognised as a 'World Craft City' by the World Craft Council (WCC)?

- (a) Vadodara
- (b) Lucknow
- (c) Chennai
- (d) Srinagar

24. With reference to the Sengol, consider the following statements:

- 1. It is a royal sceptre, signifying kingship, righteousness, justice, and authority.
- 2. Its origins lie in Odisha, and it served as a kingly emblem.

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

25. It was constructed by a famous king of Ganga Dynasty Ananta Varman Chodaganga Deva dating back to the 12th century. The main temple's structure was constructed in Kalinga architecture. Rath Yatra (Car Festival) & Bahuda Yatra festivals are celebrated here. It is one of the Dhamas (Holiest of the holy place) out of four Dhamas.

Which of the following is described above ?

- (a) Kedarnath Temple
- (b) Badrinath Temple
- (c) Jagannath Temple
- (d) Somnath Temple

26. Recently, India achieved an '*Outstanding Outcome*' in Mutual Evaluation of which of the following international organisations?

- (a) United Nations Educational, Scientific and Cultural Organization (UNESCO)
- (b) Financial Action Task Force (FATF)
- (c) International Labour Organization (ILO)
- (d) World Health Organization (WHO)

27. With reference to the Keshava temple at Somanathapura, which of the following statements is/are correct?

1. The temple was constructed by Somanatha Dandanayaka, a general of the Hoysala King Narasimha III.
2. It is a Trikota Temple dedicated to Lord Krishna.

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 (History, Art & Culture)

1. (b)

In News: Recently, the birth anniversary of revolutionary queen Ahilyabai Ahilyabai Holkar was observed.

Development of Indore and Maheshwar

- Under Ahilyabai's reign, **Indore** transformed into a prosperous **trading town**.
- She established **her own capital at Maheshwar (in Madhya Pradesh)**, situated on the **banks of the Narmada River**.
 - Under Holkar, the city of Maheshwar became a **literary, musical, artistic and industrial centre**.
 - She helped establish a textile industry there, which is now home to the famous **Maheshwari sarees**.

Architectural Contributions

- Her devotion led to the **restoration of jyotirlingas (sacred Shiva shrines)** across India, leaving a lasting impact on the architectural expression of Hinduism.

- She **refurbished** and reconsecrated several sacred pilgrimage sites, including **Kashi (Varanasi), Gaya, and Somnath.**

- The word Punyashlok is behind her name. Punyashlok is the ruler who frees the people from all kinds of deprivations.

2. (c)

Statement 1 is not correct: As per the 2011 census, the tribe has a population of around 23,000 in **Latehar and Gumla districts.** “In the community, 50% of the population could barely speak in Asur language. Using mobile radio, the Asur community has been spreading the popularity of the language within their geographical limits.

Statement 2 is correct: Asur is among the nine PVTGs found in **Jharkhand.** The Asur tribe has been using **mobile radio to transmit local news and songs.** PVTGs are more vulnerable among the tribal groups. Due to this factor, more developed and assertive tribal groups take a major chunk of the tribal development funds, because of which PVTGs need more funds directed for their development.

Statement 3 is correct: The Asur language figures in the list of **UNESCO** Interactive Atlas of the World’s Languages in Danger.

3. (b)

In News: The **Koya tribe** recently faced a cultural crisis that threatened over the sacred Mahua flower in **Godavari valley of Andhra Pradesh.**

Statement 1 is not correct

- **Geographical Distribution:** The Koyas primarily reside in the **Malkangiri district in south Odisha.** They are also found in **Andhra Pradesh and Chhattisgarh.**
 - They are **not listed as the Particularly Vulnerable Tribal Groups (PVTGs).**

Statement 2 is correct

- Traditionally, the Koyas are **pastoralists and shifting cultivators.** They own large herds of cows and bullocks.
- According to their traditional system, **Chom (or wealth) means cattle,** because a Koya without cattle has no status in the society.
- In the **adjacent Bastar region of Chhattisgarh,** the Koyas are known as **Dorla and Madia.**

4. (a)

Statement 1 is correct: The Rigveda is a collection of 1,028 hymns divided into 10 mandalas. **They are the earliest compositions** and hence depict the life of the early Vedic people in India.

Statement 2 is not correct: The **Samaveda** is a collection of verses mostly taken from the Rigveda but arranged in a poetic form to facilitate singing.

- The Yajurveda is found in two recensions, Black and White, and are full of rituals to be performed publicly or individually.

5. (b)

Statement 1 is correct: Worship Rituals: While excavating the site of Rakhigarhi, evidence of ritual platforms and fire altars were found. Parallely, **fire worship is mentioned in Rigvedic texts.**

Statement 2 is not correct: Rigvedic texts do not mention the use of iron, so co-relation with early historic settlements which came much later and are 2,400-year-old ones (near the Ganga Basin and the Deccan region) is not possible.

Statement 3 is correct: The Atharvaveda is a collection of magic spells and charms to ward off the evil spirits and diseases.

6. (a)

Statement 1 is correct: Shivaji's administration was characterized by a **centralized system** with the king as the head, assisted by the **Ashtapradhan council**.

Statement 2 is not correct: He reformed the revenue system, **abolishing the Jagirdari system** in favor of the Ryotwari system, and implemented measures to monitor land rights.

7. (b)

In News: Recently, it is observed the 124th death anniversary of revolutionary tribal leader Birsa Munda.

- **Birsa Munda** believed in **One God** and encouraged them to revert to their original religious beliefs.
- People of the **Munda and Oraon community** joined the sect and posed a challenge to British conversion activities of tribals.
- Through the religion, Munda preached a strong Anti – British sentiment and mobilised thousands of tribal folk to form guerrilla armies to attack the Raj.
- He was referred to as **'Dharti Abba or Father of Earth'** by his followers.
- In March 1900, while fighting the British alongside his guerilla army, Munda was arrested in Jamkopai forest in Chakradharpur.

8. (d)

Statement 1 is correct: Bhils are indeed the largest tribal group in India, residing mainly in states like Madhya Pradesh, Rajasthan, Gujarat, Maharashtra, and Chhattisgarh.

Statement 2 is correct: The Bhils have a vibrant cultural heritage, known for their oral traditions, music, dance, and expertise in archery and agriculture.

Statement 3 is correct: The Bhil languages are a subgroup of the Western Zone of the Indo-Aryan languages.

9. (a)

Context: Pandit Rajeev Taranath, a sarod maestro who mesmerised audiences worldwide, passes away at 92.

About (Sarod)

- It is a **stringed instrument** made of coconut shell, tun wood, drone, shikri, and ivory.
- A popular plucked instrument, it is used in **North Indian classical music** for solo concerts.

10. (a)

News: Recently, the birth anniversary of Ram Prasad Bismil was celebrated.

About

- Ram Prasad Bismil was born on June 11, 1897 in the United Provinces' (now Uttar Pradesh).
- He was involved in the **Mainpuri Conspiracy** of 1918 and the **Kakori Conspiracy** of 1925.
- He founded the Hindustan Republican Association (HRA, later Hindustan Socialist Republican Association) and was hanged for his revolutionary activities in 1927.

11. (d)

News: The President of India attended the Raja Parba celebration at Rashtrapati Bhavan.

Raja Parba (festival)

- Celebrated at the onset of the rainy season, it is an important festival with a strong social message.

- The festival is **associated with the farmers** as the onset of the rains moistens the parched soil making it ready for sowing.
- It is also one of the few festivals in the country **which celebrates menstruation** and conveys the message of empowerment against the societal taboos.

12. (a)

Statement 1 is correct: Ratha Yatra, also known as the Chariot Festival, is indeed the most popular festival in Odisha in terms of footfall and following. It is celebrated with great enthusiasm and attracts a large number of devotees.

Statement 2 is correct: Dola Purnima is a festival associated with the worship of Radha and Krishna and involves playing with colors.

Statement 3 is not correct: Magha Saptami, also known as Ratha Saptami, is one of the major Hindu festivals that falls on the seventh day in the Shukla Paksha or waxing period of the Hindu month of Magha (January-February). The festival is dedicated to Lord Sun. It is not considered the biggest festival in Odisha. Ratha Yatra holds that distinction.

13. (b)

Kheer Bhawani temple

- It is **located** in Tulmulla area of Ganderbal district in **Jammu and Kashmir**, amid chinar trees.
- The temple is constructed above a **sacred spring**, which is said to change its colors.
- Goddess **Ragnya Devi** – an incarnation of Goddess Durga – is the **presiding deity** of this temple.
- **Maharaja Pratap Singh** built this temple in **1912**, which was later renovated by Maharaja Hari Singh.

Lingaraj Temple

- Lingaraj Temple is a Hindu temple dedicated to **Shiva** and is one of the oldest temples in Bhubaneswar, Odisha.
- The temple represents the quintessence of the **Kalinga architecture**.
- It is believed to be built by the kings from the **Somavamsi dynasty**, with later additions from the **Ganga rulers**.

Kamakhya Temple

- The Kamakhya Temple at **Nilachal hills in Guwahati, Assam** is one of the oldest and most revered centers of Tantric practices, dedicated to the goddess Kamakhya.
- The temple is the center of the Kulachara Tantra Marga and the site of the **Ambubachi Mela**, an annual festival that celebrates the **menstruation of the goddess**.

14. (b)

Ancient Nalanda University

- The ancient **Nalanda University** was established in the **5th century** by the Gupta ruler **Kumaragupta I**.
- It includes **stupas, shrines, viharas** (residential and educational buildings) and important art works in stucco, stone and metal.

- It was patronized by various rulers including King **Harshavardhana of Kannauj** (7th century CE) and the **Pala rulers** (8th – 12th century CE).
- It flourished for 800 years before it was burnt down by **Bakhtiar Khilji** in the **12th century**.
- The site after its decline was first discovered by **Sir Francis Buchanan** and was systematically excavated and consolidated by the Archaeological Survey of India.

15. (d)

News: Recently, climate activists of the 'Just Stop Oil' group sprayed orange powder on Stonehenge, the renowned prehistoric UNESCO World Heritage Site in **England**.

About:

- Stonehenge was built in several stages: the first monument was an early henge monument, built about 5,000 years ago, and the unique stone circle was erected in the late Neolithic period about 2500 BC.
- In the early Bronze Age many burial mounds were built nearby.



16. (c)

Statement 1 is correct: Mata ni Pachedi is indeed a traditional art form from Gujarat that draws inspiration from Kalamkari.

Statement 2 is not correct: Mata ni Pachedi is painted by men of the Vaghari community.

Statement 3 is not correct: These paintings are primarily used for rituals.

Statement 4 is not correct: The central figure in these paintings is the divine feminine.

17. (d)

In News: Recently, the Union Tribal Affairs Ministry promised to look into forest clearances for a ₹72,000-crore infrastructure project on Great Nicobar Island.

- **Particularly Vulnerable Tribal Groups (PVTGs)** are the most marginalised and extreme backward sections among Scheduled Tribes (STs).
- **The criteria** for identifying Particularly Vulnerable Tribal Groups are Pre-agricultural level of technology, Low level of literacy, Economic backwardness, and a declining or stagnant population.
- **PVTGs in Andaman and Nicobars Island:**
 - Great Andamanese of Strait Island;
 - Onges of Little Andaman;
 - Jarawas of South and Middle Andaman;
 - Sentinelese of Sentinel Islands;
 - Shompens of Great Nicobar;

Particularly Vulnerable Tribal Groups (PVTGs)

- Great Andamanese of Strait Island;
- Onges of Little Andaman;
- Jarawas of South and Middle Andaman;
- Sentinelese of Sentinel Islands;
- Shompens of Great Nicobar.

18. (d)

Shyama Prasad Mookerjee formed All India Bharatiya Jana Sangh which was formally launched in October 1950. He was elected to lead the new organisation as its first All-India President.

19. (d)

He was a 15th-century Indian mystic, social reformer, poet and saint who had a significant role among the people in India.

- He was one of the most influential saints.
- He was best known for his two-line couplets, known as '**Kabir Ke Dohe**'
- He is a widely revered poet whose works had a tremendous influence on the **Bhakti movement**.
- Kabir's legacy is still going on through a sect known as Panth of Kabir, a religious community that considers him as the founder.
- His teachings openly ridiculed all forms of **external worship** of both **Brahmanical** Hinduism and Islam, the pre-eminence of the priestly classes and the caste system.
 - Kabir believed in a **formless Supreme God** and preached that the only path to salvation was through bhakti or devotion. Kabir drew his followers from among both Hindus and Muslims
- Kabir Das' writings had a great influence on the Bhakti movement and includes titles like Kabir Granthawali, Anurag Sagar, Bijak, and Sakhi Granth, Panch Vani

20. (a)

Statement 1 is correct: Srikakulam was indeed known as Chicacole during the British colonial period.

Statement 2 is correct: Salihundam, an important Buddhist site in Srikakulam, is believed to have played a role in the spread of Buddhism to Sumatra.

Statement 3 is not correct: Srikakulam was a part of the Vijayanagara Empire during its peak.

21. (b)

In News: Recently, **Kozhikode** in north Kerala, known for its rich cultural heritage, was officially declared as **India's first UNESCO 'City of Literature'**.

UNESCO Creative Cities Network (UCCN)

- It was created in 2004 **to promote cooperation among cities** that have identified creativity as a strategic factor for sustainable urban development.
 - It now includes 350 cities in over a hundred countries.
 - **Prague was the first city** to be honoured with the title of 'City of Literature' by UNESCO in 2014.
 - Before Kozhikode, UNESCO listed Gwalior, **Mumbai, Chennai, Hyderabad, Varanasi, Jaipur, and Srinagar** to the **Creative Cities Network (UCCN)**.
 - Currently, **Kolkata and New Delhi** are **not** listed as the UCCN.
- It was launched to promote UNESCO's goals of cultural diversity and strengthen resilience to threats such as climate change, rising inequality, and rapid urbanisation.

22. (b)

Statement 1 and 2 are correct: Kamakhya Temple is **one of 51 Shaktipeeths** in India that is located atop **Nilachal Hills in Assam**.

- The temple is dedicated to **Mother Goddess Kamakhya**, who is another form of Goddess Parvati.
- The **Ambubachi Mela** is an annual Hindu fair organised at Kamakhya Temple. This fest marks the celebration of the yearly menstruation course of goddess Maa Kamakhya.

Statement 3 is not correct: Architecture: It had been modelled out of a combination of two different styles, namely, the traditional nagara or North Indian and saracenic or Mughal.

- Thus, being an unusual combination which came into its existence on this famous sakti shrine of India, it has been named as the **Nilachala Style** of Architecture.

23. (d)

Context

- Srinagar has become the **fourth Indian city** to be recognised as a 'World Craft City' by the World Craft Council (WCC).
 - Previously **Jaipur, Malappuram and Mysore** have been recognised as **World Craft Cities from India**.

24. (a)

Statement 1 is correct: A sengol — or chenkol — is a **royal sceptre**, signifying **kingship, righteousness, justice, and authority**.

Statement 2 is not correct: Its origins lie in **Tamil Nadu**, and it served as a **kingly emblem**.

- Among the **Madurai Nayakas**, for example, the sengol was placed before the goddess Meenakshi in the great temple on important occasions, and then transferred to the throne room, representing the **king's role as a divine agent**.

25. (c)

National Botanical Research Institute has undertaken scientific research to preserve and produce flowers used in rituals of **12th century Shree Jagannath Temple, Puri, Odisha**.

Shree Jagannath Temple was constructed by a famous king of Ganga Dynasty Ananta Varman Chodaganga Deva dating back to the 12th century at the seashore Puri.

- The main temple of Shri Jagannath is an impressive and amazing structure constructed in Kalinga architecture, with a height of 65 meters placed on an elevated platform. There are so many festivals of Sri Jagannath during the year observed in Puri.
- The most important festivals are the World famous Rath Yatra (Car Festival) & Bahuda Yatra.
- It is one of the Dhamas (Holiest of the holy place) out of four Dhamas i.e. Puri, Dwarika, Badrinath & Rameswar, in India.

26. (b)

In News: Recently, India achieved an '**Outstanding Outcome**' in FATF Mutual Evaluation conducted during 2023-24 by the Financial Action Task Force (FATF).

- **The Mutual Evaluation Report of India** was adopted in the **FATF Plenary Session** held in Singapore placing India in the '**regular follow-up**' category, a distinction **shared by only four other G-20 countries**.
- It marks a significant milestone in **India's efforts** to combat **money laundering** and **terrorist financing**.

27. (c)

Keshava temple at Somanathapura

- **Location:** The Keshava Temple is part of the **Hoysala monument**, located in Somanathapura town, on the banks of **River Kaveri**, in Mysore district, Karnataka.
- The construction of the temple was completed and consecrated in **1268 AD**, by **Somanatha Dandanayaka**, a general of the **Hoysala King Narasimha III**.
- The main temple in the center is on a **high star-shaped platform** with three symmetrical sanctums (garbha-griha).
- This is a **Trikuta Temple** dedicated to Lord Krishna in three forms – **Janardhana, Keshava and Venugopala**.

Economy

1. The Reserve Bank of India (RBI) uses Variable Rate Repo (VRR) auctions primarily to:
 - (a) Control inflation by reducing money supply
 - (b) Manage the exchange rate of the Indian Rupee
 - (c) Provide long-term financing to priority sectors
 - (d) Inject short-term liquidity into the banking system
2. Which of the following statements about Foreign Direct Investment (FDI) in India is **not correct**?
 - (a) Singapore was the top source of FDI equity inflows in FY24.
 - (b) Total FDI, including equity and other forms, contracted by 3.5% in FY24.
 - (c) The decline in FDI equity inflows was partly due to a decrease in investment in the services sector.
 - (d) Karnataka surpassed Maharashtra as the top recipient of FDI in FY24.
3. Consider the following statements:
 1. A currency can be termed "international" if it is widely accepted worldwide as a medium of exchange.
 2. Currency internationalization is the use of a currency outside the borders of its country of issue.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. With reference to the *Gold Reserves in India*, consider the following statements:
 1. It is the gold held by the Reserve Bank of India (RBI).
 2. India's gold reserves are primarily stored in the Bank of England.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. Which committee envisaged a specific debt-to-GDP ratio for the central and state governments in India?
 - (a) Rangarajan Committee
 - (b) NK Singh Committee
 - (c) Kelkar Committee
 - (d) Gadgil Committee
6. The Central Board of Indirect Taxes & Customs (CBIC), is under which of the following ministries?
 - (a) Ministry of Home Affairs
 - (b) Ministry of Finance
 - (c) Ministry of Commerce and Industry
 - (d) Ministry of Law and Justice

7. With reference to Public debt, which of the following statements is/are correct?
1. India's public debt-to-GDP ratio has been 21% in 2022-23.
 2. The sources of public debt are dated government securities (G-Secs), treasury bills, and external assistance.

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
8. Which of the following statements is correct about *Preston curve*?
- (a) It states that inflation and unemployment have an inverse relationship.
 - (b) It measures the inequality among the values of a frequency distribution.
 - (c) It is an empirical relationship that is witnessed between life expectancy and per capita income.
 - (d) It shows the relationship between tax rates and total tax revenue.
9. Which of the following is NOT a primary function of a Clearing Corporation (CC)?
- (a) Facilitating the transfer of securities and funds between buyers and sellers.
 - (b) Managing counterparty risk by acting as a central counterparty.
 - (c) Setting interest rates for loans extended by commercial banks.
 - (d) Enforcing market rules and regulations to ensure fair trading practices.
10. Consider the following statements
1. The interest rate that the RBI pays to commercial banks when they park their excess cash with the central bank is called the repo rate.
 2. The interest rate that the RBI charges when commercial banks borrow money from it is called the reverse repo rate.

Which of the statements given above is/are Incorrect?

- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
11. With respect to the Insolvency and Bankruptcy Board of India (IBBI), consider the following statements:
1. It is a regulatory body established under the Companies Act, 2013.
 2. It has regulatory oversight over insolvency professionals, insolvency professional agencies, and information utilities.
 3. The chairman of IBBI is appointed by the Reserve Bank of India.

Which of the statements given above is/are correct?

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

- 12.** With respect to Base Erosion and Profit Shifting (BEPS), consider the following statements:
1. BEPS refers to tax planning strategies used by multinational enterprises (MNEs) that exploit gaps and mismatches in tax rules to artificially shift profits to low or no-tax locations.
 2. The BEPS initiative is led by the World Trade Organization (WTO) to address the issue of tax avoidance by MNEs.
 3. India is a member of the Inclusive Framework on BEPS, which is a collaboration of over 140 countries and jurisdictions to implement BEPS measures.

Which of the above statements is/are correct?

- (a) 1 only
 - (b) 1 and 3 only
 - (c) 2 and 3 only
 - (d) 1, 2, and 3
- 13.** Which of the following statements about GAAR is correct?
- (a) GAAR can be invoked at the discretion of the taxpayer.
 - (b) GAAR is primarily designed to provide tax benefits to foreign investors.
 - (c) GAAR is a provision of last resort used to address unacceptable tax avoidance practices.
 - (d) None of the above.
- 14.** Consider the following statements regarding the GST Council:
1. It is a constitutional body established under Article 279A of the Indian Constitution.
 2. The Union Finance Minister is the Chairperson of the GST Council.
 3. Decisions in the GST Council are made by a simple majority of members present and voting.

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
- 15.** With reference to the Agricultural and Processed Food Products Export Development Authority (APEDA), consider the following statements:
1. It works under the Ministry of Food Processing Industries.
 2. It promotes exports of agricultural and processed food items including GI products.
- 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
- 16.** With reference to the 'Social Stock Exchanges (SSEs) in India', consider the following statements:
1. Companies in India can donate to non-profit organizations outside of SSEs under their Corporate Social Responsibility (CSR) activities.
 2. Currently, there are more than hundred non-profit organizations listed in SSEs.

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

17. With reference to the Angel Tax, consider the following statements:

1. It was first introduced in 2012.
2. It is levied when an unlisted company issues shares to an investor at a price lower than its fair market value.

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. With reference to the Minimum Support Price (MSP), consider the following statements:

1. It is the minimum rate at which farmers sell their crops to the government.
2. The Cabinet Committee on Economic Affairs, headed by the Finance Minister, takes the final call on the MSP.

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

19. Which of the following is correct regarding the Cooperative Banks?

- (a) They belong to their members who are both the owners and customers of the bank.
- (b) It operates on the principle of “one person, one vote” in decision-making.
- (c) Along with lending, these banks also accept deposits.
- (d) All of the above.

20. Consider the following statements about the Nord Stream pipelines:

1. Nord Stream 1, completed in 2011, runs from Vyborg in Russia to Lubmin near Greifswald, Germany.
2. Nord Stream 2 is a fully operational pipeline, carrying a significant amount of natural gas from Russia to Germany.
3. Both Nord Stream pipelines cross the Exclusive Economic Zones (EEZs) of several countries including Finland, Sweden, and Denmark.
4. The majority ownership of Nord Stream 1 lies with the German state-owned energy company, E.ON.

Which of the above statements are correct?

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

- 21.** Consider the following statements regarding Priority Sector Lending (PSL) in India:
1. The Reserve Bank of India (RBI) mandates PSL to ensure adequate credit flow to vulnerable sectors.
 2. The PSL targets are the same for all types of banks in India.
 3. PSL promotes inclusive development by directing funds to sectors like agriculture, MSMEs, education, and housing.
 4. The PSL target for scheduled commercial banks is higher than that for Regional Rural Banks.
- Which of the above statements are correct?
- (a) 1 and 3 only
 - (b) 2 and 4 only
 - (c) 1, 3, and 4 only
 - (d) 1, 2, and 3 only
- 22.** Which of the following statements is the most accurate definition of front-running in the context of financial markets?
- (a) It is the legal practice of a broker executing their own trades before executing client orders to maximize profits.
 - (b) It is the illegal practice of trading based on non-public information about a large order, aiming to profit from the subsequent price movement.
 - (c) It is a strategy used by mutual funds to adjust their portfolios in anticipation of market trends.
 - (d) It is a legitimate trading tactic used to hedge against market volatility.
- 23.** 'Ratle Power Project, recently seen in the news, is located on which of the following rivers?
- (a) Chenab
 - (b) Jhelum
 - (c) Sutlej
 - (d) Beas
- 24.** It refers to a situation where some sectors of the economy revive after a slowdown or recession while others don't. It is known as
- (a) V-shaped recovery
 - (b) L-shaped recovery
 - (c) K-shaped recovery
 - (d) U-shaped recovery
- 25.** With reference to the Gross non-performing assets (GNPA) ratio, consider the following statements:
1. It is a financial metric used to assess the health of a bank or financial institution.
 2. Higher GNPA ratio indicates a healthier loan portfolio.
- 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 (Economy)

1. (d)

VRR (Variable Rate Repo) and VRRR (Variable Rate Reverse Repo)

- The RBI conducts auctions where banks can bid for funds. The interest rate is determined by the market, i.e., the rate at which banks are willing to borrow. This is different from the fixed repo rate, which is the rate at which banks can borrow directly from the RBI.
- Typically lasting up to 14 days, VRR serves as a means to **inject short-term liquidity** into the banking system.
- Similar to VRR, the RBI conducts auctions where banks can invest their surplus funds. The interest rate is also determined by the market called VRRR (Variable Rate Reverse Repo).

2. (d)

FDI equity inflows into India declined to a five-year low of \$44.42 billion in FY24, a **3.5%** decrease compared to the previous year.

Key Points

- **Top Sources of FDI:** Singapore remained the top investor with \$11.77 billion, followed by Mauritius (\$7.97 billion), the United States (\$4.99 billion), and the Netherlands (\$4.92 billion).
- **Leading Sectors:** The computer software and hardware sector was the highest recipient of FDI.
- **Geographical Distribution:** Maharashtra continued to attract the most FDI, with \$15.11 billion.
- **Reason for Decline in FDI Inflows:** High interest rates in advanced economies made investments in India less attractive.
 - Some sectors in India, like IT and startups, have reached a saturation point in terms of investment.

Impacts

- Reduced FDI can impact economic growth as it is a crucial source of capital and technology transfer.
- The decline may signal a decrease in investor confidence in the Indian market.

3. (c)

Both the statements are correct: A currency can be termed "international" if it is **widely accepted worldwide as a medium of exchange.**

- Just like a domestic currency, an international currency performs the three functions of money – **as a medium of exchange, a unit of account, and a store of value.**
- Currency internationalization is the **use of a currency outside the borders of its country of issue.**
- The level of currency internationalization for a currency is determined by the **demand that users in other countries have for that currency.**

4. (c)

In News: Recently, the Reserve Bank of India (RBI) has transferred 100 metric tonnes of gold from the United Kingdom to domestic vaults in FY24.

Statement 1 is correct

- **Gold Reserve** is the **gold held by a country's central bank (RBI in case of India)**, acting as a backup for financial promises and a store of value.
- India, like other nations, stores some of its gold reserves in foreign vaults to spread out risk and facilitate international trading.

Statement 2 is correct

- India's gold reserves are primarily stored in the Bank of England, which is known for its stringent security protocols.
 - The RBI stores a portion of its gold reserves at the Bank for International Settlements (BIS) in Basel, Switzerland, and the Federal Reserve Bank of New York in the United States.

5. (b)

The NK Singh Committee, also known as the Fiscal Responsibility and Budget Management (FRBM) Review Committee, was tasked with reviewing the FRBM Act and suggesting reforms. It recommended specific debt-to-GDP targets for the central government (40%) and state governments (20%) aiming for a total of 60% general government debt-to-GDP ratio.

6. (b)

Ministry of Finance

About

- The Central Board of Indirect Taxes & Customs (CBIC), has invited suggestions on the draft 'Central Excise Bill, 2024' from stakeholders.
- The Central Board of Indirect Taxes & Customs (CBIC), is under the Department of Revenue, Ministry of Finance.

7. (b)

Statement 1 is not correct and Statement 2 is correct.

What is Public debt?

- Public debt is the total amount, including total liabilities, borrowed by the government to meet its development budget.
- The term is also used to refer to **overall liabilities of central and state governments**, but the Union government clearly distinguishes its debt liabilities from the states'.
- In India, the central government broadly classifies its liabilities into two categories — debt contracted against the **Consolidated Fund of India, and public account**.
- The sources of public debt are **dated government securities (G-Secs), treasury bills, external assistance, and short-term borrowings**.

Public debt of India

- India's public debt-to-GDP ratio has barely increased from 81% in 2005-06 to **84% in 2021-22**, and is back to **81% in 2022-23**.
- As per the **Fiscal Responsibility and Budget Management (FRBM) Act 2003**, the general government debt was supposed to be brought down to **60% of GDP by 2024-25**.
- The IMF states that India's general government debt, including the Centre and States, could be **100% of GDP** under adverse circumstances by fiscal 2028.
- It has projected the ratio at **82.4% for 2024-25**.

8. (c)

Preston curve refers to a certain empirical relationship that is witnessed **between life expectancy and per capita income in a country**.

- It was first proposed by **American sociologist Samuel H. Preston** in his 1975 paper “The changing relation between mortality and level of economic development”.

9. (c)

Clearing Corporations (CCs) play a vital role in the **smooth functioning of stock exchanges by handling the clearing and settlement of trades** in securities and other financial instruments. They ensure that transactions are completed efficiently and securely, minimizing risks for market participants.

- The **Securities Contracts (Regulation) (Stock Exchanges and Clearing Corporations) Regulations, 2018**, govern the ownership and governance framework of CCs in India. These regulations aim to ensure the independence and neutrality of CCs, which is essential for their role as risk managers and regulators.

10. (c)

Context: The **monetary policy committee (MPC) of the RBI** has decided to keep the policy repo rate unchanged at 6.5 per cent.

About

- The interest rate that the RBI charges when commercial banks borrow money from it is called the **repo rate**.
- The interest rate that the RBI pays to commercial banks when they park their excess cash with the central bank is called the **reverse repo rate**.

Monetary Policy Committee

- The Monetary Policy Committee or the MPC is a **6 member committee** that is led by the **RBI governor**.
- The first such MPC was constituted in **2016**.
- The MPC determines the **policy repo rate** required to achieve the **inflation target**.
- The MPC is required to meet at least **four times in a year**. The quorum for the meeting of the MPC is four members.
- Each member of the MPC has **one vote**, and in the event of an **equality of votes**, the **Governor has a second or casting vote**.
- Each Member of the Monetary Policy Committee writes a statement specifying the reasons for voting in favour of, or against the proposed resolution.

11. (b)

Statement 1 is not correct: The IBBI was established on 1st October 2016 under the Insolvency and Bankruptcy Code (IBC), 2016, not the Companies Act.

Statement 2 is correct: The IBBI has regulatory oversight over insolvency professionals, insolvency professional agencies, and information utilities.

Statement 3 is not correct: The Chairman of IBBI is appointed by the Central Government in consultation with the Reserve Bank of India.

12. (b)

Statement 1 is correct: BEPS does indeed refer to the tax avoidance strategies used by MNEs.

Statement 2 is not correct: The BEPS initiative is led by the Organisation for Economic Co-operation and Development (OECD) and the G20, not the WTO.

Statement 3 is correct: India is an active member of the Inclusive Framework on BEPS, participating in the development and implementation of measures to tackle BEPS.

13. (c)

Context

- Recently, the **Telangana High Court** has ruled against a taxpayer in the matter of the General Anti-avoidance Rule (GAAR).

About the General Anti-Avoidance Rule (GAAR)

- It is an **anti-tax avoidance law** in India, that was introduced **to address tax avoidance** and ensure that those in different tax brackets are taxed the correct amount.

Gaar
Rules to prevent tax avoidance will be rolled out as planned from

ON TARGET

Gaar not to be invoked if tax treaty with a country has anti-avoidance rule	Gaar not to be invoked just because investor located in tax efficient jurisdiction	Rules will not apply to investment before April 1, 2017
Taxpayer free to select method of implementation	Gaar not to apply if investor is not located in place just for tax reasons	Gaar not to apply in court-sanctioned arrangements

ADEQUATE SAFEGUARDS

Gaar proposals to be vetted by commissioner/principal commissioner

In second stage, it will go to approving panel headed by a high court judge

The GAAR regulations are **based on the Income Tax Act of 1961**, and it was first introduced in the **Direct Taxes Code Bill 2010**.

- It is a **provision of last resort** that is capable of being invoked by a tax authority to strike down **unacceptable tax avoidance practices** that would otherwise comply with the terms and statutory interpretation of the ordinary tax law.

14. (a)

Statement 1 is correct: The GST Council was established under Article 279A after the 101st Constitutional Amendment Act.

Statement 2 is correct: The Union Finance Minister chairs the GST Council.

Statement 3 is not correct: Decisions in the GST Council are made by a majority of not less than three-fourths of the weighted votes of the members present and voting.

15. (b)

Context: APEDA has facilitated the first Consignment of 'MD 2 Pineapples' from India to UAE.

MD 2 Pineapples

- It is a hybrid pineapple, can be easily processed and has a much longer shelf life than the normal varieties.
- The MD 2 pineapple, also known as "Golden Ripe" or "Super Sweet," has become the gold standard in the pineapple industry, with significant cultivation in countries like Costa Rica, the Philippines, and Thailand.

APEDA

- The Government in 1986 had set up APEDA through an Act of Parliament under the **Ministry of Commerce and Industry**, Government of India.

- Headquarters: New Delhi
- It **promotes exports** of agricultural & processed food items (including GI products) by providing assistance to the exporters.

16. (a)

In News:

- **Social Stock Exchanges (SSEs)** was proposed by the Union Finance Minister in the **FY20 Budget Speech**, as a **segment under stock exchanges** where **non-profit organisations that work for social welfare** can be registered and listed to raise funds.
- Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE) both run Social Stock Exchanges (SSEs).

Statement 1 is correct

- **Currently**, companies can donate to non-profit organisations **outside of SSEs under their CSR activities**.
- They **cannot**, however, fund non-profit organisations through SSEs to fulfil their CSR mandate.
- For the above, **an amendment in Schedule VII of the Companies Act (2013)** is required.
 - **Schedule VII of the Act** lists the activities that companies undertake for CSR.

Statement 2 is not correct

- **Currently, as many as eight non-profit organizations** are listed on the SSE, and it is believed that the SSEs would have more than **100 listings by the end of FY25**.

17. (a)

Context: Amid a sharp decline in funding for startups and consequent job losses, Indian Inc has sought the removal of Angel Tax.

About (Angel Tax)

- It was first introduced in **2012**.
- Angel tax – which is income tax at the rate of 30.6 percent – is levied when an unlisted company issues shares to an investor at a price **higher than its fair market value**.
- Earlier, it was imposed only on investments made by a resident investor. However the Finance Act 2023 proposed to extend Angel Tax even to non-resident investors from April 1, 2024.

18. (a)

Context: The Union Cabinet gave its nod to raise the minimum support price (MSP) for paddy by 5.35% to ₹2,300 a quintal for the 2024-25 kharif marketing season.

Minimum Support Price (MSP)

- It is the **minimum rate** at which farmers sell their crops to the government. This price prevents farmers from market fluctuation and offers stability and income security.
- Established in 1965, the CACP or Commission for Agricultural Costs and Prices, recommends the MSP based on various factors. The Cabinet Committee on Economic Affairs, **headed by the Prime Minister**, takes the final call on the MSP.

19. (d)

Context: The Reserve Bank of India canceled the licence of the City Co-operative Bank, Maharashtra for lacking adequate capital and earning prospects.

What are Cooperative Banks?

- Cooperative Banks refer to those financial institutions under the Banking System in India that operate on the **principles of cooperation and mutual benefit** for their members.
- They belong to their members who are **both the owners and customers** of the bank.
- They operate on the principle of **“one person, one vote”** in decision-making. **Along with lending**, these banks also accept deposits.

20. (a)

Statement 1 is correct: Nord Stream 1 does indeed run from Vyborg in Russia to Lubmin near Greifswald, Germany.

Statement 2 is not correct: Nord Stream 2 was completed but never became operational due to geopolitical tensions and the Russia-Ukraine war.

Statement 3 is correct: Both pipelines cross the EEZs of several countries, including Finland, Sweden, and Denmark, along with Russia and Germany.

Statement 4 is not correct: The majority ownership of Nord Stream 1 lies with the Russian state-owned gas company, Gazprom, not the German company E.ON.

21. (a)

Statement 1 is correct: The Reserve Bank of India (RBI) mandates Priority Sector Lending (PSL) to ensure an adequate credit flow to vulnerable and underserved sectors.

Statement 2 is not correct: PSL targets vary for different types of banks in India. For example, the targets for scheduled commercial banks, regional rural banks, and small finance banks are not the same.

Statement 3 is correct: PSL promotes inclusive development by directing funds to sectors like agriculture, micro, small and medium enterprises (MSMEs), education, and housing.

Statement 4 is not correct: The PSL target for scheduled commercial banks is not necessarily higher than that for Regional Rural Banks (RRBs). In some cases, they might have similar or different targets depending on specific guidelines issued by the RBI.

22. (b)

About front running

- It is the illegal practice of using non-public information to trade in securities (buy or sell) or derivatives (options or futures) before a substantial order is placed. This gives the front-runner an unfair advantage as they can profit from the expected price movement caused by the large order.
- In 2022, the Securities and Exchange Board of India (SEBI) amended the Securities and Exchange Board of India (Mutual Funds) Regulations, 1996 to include provisions specifically aimed at curbing front running.

Why is Front Running Illegal?

- It undermines investor confidence in the fairness and integrity of financial markets.
- It creates an uneven playing field, favoring those with access to privileged information over regular investors.

23. (a)

A five-member Pakistan delegation and neutral experts of the World Bank toured the **Ratle power project**.

- It is a **run-of-the-river hydroelectric power project on the River Chenab in Jammu and Kashmir**.
- Pakistan has been **raising technical objections** in different forums since 2006 regarding power projects in Jammu and Kashmir.

- Pakistan demanded an **arbitration** by different international forums, which was **rejected by India**.
- India has the **right over the run-of-the-river water under the Indus Water Treaty** over the three rivers flowing through J&K and complete rights over the waters flowing through the three rivers in Punjab.
 - India has been maintaining that it abides by the IWT.

24. (c)

Context: According to a report by Hong Kong and Shanghai Banking Corporation (HSBC), **India's inflation trajectory is following a K-shape recovery**, hurting the consumers more living in rural areas.

About

- **'K-shaped recovery'** refers to a situation where some sectors of the economy revive after a slowdown or recession while others don't.
- A K-shaped recovery **leads to changes in the structure of the economy** or the broader society as economic outcomes and relations are fundamentally changed before and after the recession.

25. (a)

Statement 1 is correct: The Gross Non-Performing Assets (GNPA) ratio is a financial metric used to **assess the health of a bank or financial institution** by measuring the proportion of its total loan assets that are classified as non-performing.

- **Non-performing assets (NPAs)** are loans or advances where the borrower has stopped paying interest or principal repayments.

Statement 2 is not correct: Higher GNPA ratio: Indicates a higher proportion of loans at risk of default, which can be a sign of **financial distress for the bank**.

- It suggests that a larger portion of the bank's loan portfolio is not generating income as expected.
- **Lower GNPA ratio:** Indicates a **healthier loan portfolio** with fewer loans at risk of default, implying better asset quality and financial stability for the bank.

Indian Polity & Constitution

1. With reference to the *Statutory Bail in India*, consider the following:
 1. It is a legal provision that allows an undertrial to be released from custody.
 2. If the court denies statutory bail, it must provide written reasons for the refusal.
 3. It does not apply to offences where the death penalty is a potential punishment.How many of the statements given above are correct?
 - (a) Only one
 - (b) Only two
 - (c) All three
 - (d) None
2. With reference to Exit polls, which of the following statements is/are correct?
 1. It gives estimates about how people voted in an election.
 2. It began back in 1957 during the second Lok Sabha elections.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
3. Consider the following statements
 1. The first coalition government in India was formed in 1977 with VP Singh as the Prime Minister.
 2. Atal Bihari Vajpayee was the first Indian Prime Minister to complete his full term during the coalition government.Which of the statements given above is/are correct?
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
4. Which one of the following is **not correct** regarding the "None of the Above" (NOTA) option?
 - (a) It allows voters to formally express their rejection of all running candidates.
 - (b) If NOTA gets the most number of votes in a constituency, the next candidate with the second-most number of votes is declared the winner.
 - (c) It was first used in 2013 in the Kerala legislative assembly elections.
 - (d) None of the above.
5. With reference to the National Human Rights Commission (NHRC), which of the following statements is/are correct?
 1. It is a constitutional body.
 2. It was established in 1993, in accordance with the Paris Principles.

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

6. With reference to the Article 3 of the Indian Constitution, consider the following statements:

1. It authorizes the Parliament to form a new state by separation of territory from any state or by uniting two or more states.
2. The President is not required to refer the bill to the State Legislature under Article 3.

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 statements:

1. The Fourth Schedule of the Indian Constitution prescribes the "Forms of Oaths or Affirmations".
2. The total number of Ministers, including the Prime Minister, in the Council of Ministers shall not exceed 15% of the total number of members of the House of the People.

Which of the statements given above is/are Incorrect?

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

8. Consider the following statements:

1. The President's oath of office is mentioned in the Article 59 of the Indian Constitution.
2. The oath of office to the President is administered by the Chief Justice of India.

Which of the statements given above is/are correct?

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

9. Which among the following countries **does not** use the First Past the Post System (FPTP) as an electoral system?

- (a) United States of America
- (b) India
- (c) Canada
- (d) Israel

10. Which one of the following is **not correct** regarding the post of Speaker?

- (a) Article 93 of the Indian Constitution provides for the office of Speaker.
- (b) The Speaker is elected by a special majority in the House
- (c) There are no specific qualifications for becoming Speaker.
- (d) None of the above.

- 11.** With reference to the Special Category Status (SCS), consider the following statements:
1. The concept of SCS was first brought into existence through the recommendations made by the First Finance Commission.
 2. At present, Mizoram, Nagaland, Sikkim, Tripura, and Uttarakhand are the only states that have the Special Category Status.

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.** Which of the following statements is/are correct regarding cooperative societies in India?

1. The 97th Constitutional Amendment of India primarily deals with cooperative societies.
2. The right to form cooperative societies is a fundamental right in India.
3. The state government has primary legislative control over cooperative societies.

Select the correct answer using the code given below:

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

- 13.** Consider the following statements:

1. Election Commissioners have tenure of six years, or up to the age of 65 years, whichever is earlier.
2. The Union Ministry of Home Affairs decides the election schedule for the conduct of both general elections and bye-elections.
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) 1 and 3 only
- (d) 3 only

- 14.** With reference to the *Disaster Management Act (2005)*, consider the following statements:

1. The States need to utilise the funds available in the State Disaster Response Fund (SDRF) before seeking the money from the National counterpart.
2. The entire money of the National Disaster Response Fund (NDRF) comes from the Central Government only.

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. The principle of 'Collective Responsibility' as enshrined in the Indian Constitution implies that:
- All ministers are individually answerable to the President for their actions.
 - The Council of Ministers is collectively responsible to the Rajya Sabha.
 - Ministers must publicly support all decisions taken by the Cabinet, even if they disagree privately.
 - The Prime Minister can dismiss any minister without the approval of the Lok Sabha.
16. Consider the following statements
- The Constitution of India explicitly prohibits children under the age of 14 from working in mines, factories, or hazardous occupations.
 - The theme for the World Day Against Child Labour 2024 is "Let's act on our commitments: End Child Labour".
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
17. Freedom of artistic expression in India is primarily guaranteed under:
- Article 14 of the Constitution
 - Article 19(1)(a) of the Constitution
 - Article 21 of the Constitution
 - Article 25 of the Constitution
18. Tax devolution in India is primarily governed by:
- Article 265 of the Constitution
 - Article 270 of the Constitution
 - Article 280 of the Constitution
 - Article 301 of the Constitution
19. With reference to mercy petitions in India, consider the following statements:
- A mercy petition can only be filed by a person sentenced to death.
 - The President has the power to pardon sentences for offenses under both Union and State laws.
 - The power to grant mercy petitions is a discretionary power vested in the President and Governors.
 - The Supreme Court has the authority to review and overturn decisions on mercy petitions.
- Which of the above statements are correct?
- 1 and 2 only
 - 3 and 4 only
 - 1, 3 and 4 only
 - 2, 3 and 4 only
20. With reference to the national anthem, consider the following statements:
- Showing respect to the national anthem is a fundamental duty.
 - It was first sung in 1929 at the Lahore Session of the Indian National Congress.
- Which of the statements given above is/are **Incorrect**?
- 1 only
 - 2 only

- (c) Both 1 and 2
(d) Neither 1 nor 2
- 21.** With reference to the Pro-tem Speaker of Lok Sabha, consider the following statements:
1. The post of the Pro-tem Speaker of Lok Sabha is mentioned in the constitution.
 2. Administering oaths to the new MPs is the pro-tem Speaker's primary duty.
- 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
- 22.** With reference to the '*Postal Services in India*', consider the following statements:
1. It comes under the Union List (Schedule VII) of the Constitution of India.
 2. It provides financial inclusion 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
- 23.** With reference to the Oath or affirmation of the Member of Parliament, consider the following statements:
1. Oath or affirmation can be taken only in the 22 languages that are specified in the Indian Constitution.
 2. If an MP fails to take the oath or affirmation within the prescribed time, their seat may be declared vacant.
- 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
- 24.** With reference to the Census in India, consider the following statements:
1. The first complete Census was conducted in 1871.
 2. It is conducted under the provisions of the Census Act of 1948.
- 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
- 25.** With reference to Telecommunications Act 2023, consider the following statements:
1. It seeks to repeal the Telegraph Act, 1885 and Indian Wireless Telegraph Act, 1933.
 2. Messages between two or more persons may be intercepted, monitored, or blocked on certain grounds.

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

26. Which of the following Article of the Indian Constitution, empowers the Parliament to alter the name of any State?

- (a) Article 1
- (b) Article 2
- (c) Article 3
- (d) Article 4

27. How many times has the National Emergency been declared in India so far?

- (a) One
- (b) Two
- (c) Three
- (d) Four

28. Consider the following statements:

1. Article 3 of Indian Constitution authorizes the Parliament to form a new state by separation of territory from any state.
2. A bill relating to Article 3 can be introduced in the Parliament only with the prior recommendation of the President.

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

29. With reference to the Deputy Speaker, which of the following statements is/are correct?

1. According to the Indian Constitution the Deputy Speaker of Lok Sabha must be from the opposition party only.
2. There was no Deputy Speaker for the entire duration of the 17th Lok Sabha.

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

30. With reference to the Panchayats (Extension to Scheduled Areas) Act, 1996, which of the following statements is/are correct?

1. It extends the provisions of the Panchayats mentioned in Part IX of Constitution to the 5th Scheduled Areas.
2. The Act grants tribal communities control over the management and utilization of natural resources.

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

31. With reference to the *Presidential Address to the Joint Session of Indian Parliament*, consider the following statements:

- 1. The practice was established after the promulgation of the Indian Independence Act 1947.
- 2. The Constitution of India gives the President the power to address a sitting of the legislature.

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

32. With reference to the Emergency in India, consider the following statements:

- 1. Part XVIII of the Constitution speaks of emergency provisions.
- 2. India has witnessed two instances where a national emergency was declared under Article 360 of the Constitution.
- 3. Financial emergency has never been declared in India.

How many of the statements given above are correct?

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

33. With reference to the Lok Sabha Speaker, which of the following statements is/are correct?

- 1. According to the Indian Constitution the Speaker of Lok Sabha must be from the ruling party only.
- 2. In the absence of the Speaker, the Deputy Speaker discharges his/her functions.

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

34. With reference to the Committee of Privileges of the Rajya Sabha, consider the following statements:

- 1. It consists of 15 members nominated by the Chairman of Rajya Sabha.
- 2. The Chairman of the committee is appointed by the Speaker of Lok Sabha.
- 3. Parliamentary privileges are special rights granted only to the members of the Rajya Sabha.

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

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

35. Consider the following statements regarding the President's Address to the Parliament:
1. Article 86 of the Indian Constitution allows the President to address either House of Parliament or both Houses together.
 2. Prior to the First Amendment of the Constitution, the President was required to address both Houses of Parliament at the commencement of every session.

Which of the above statements is/are correct?

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

36. With reference to the Panchayati Raj Institutions (PRIs) in India, consider the following statements:

1. Balwant Rai Mehta Committee report recommended the formation of a democratic system of governance at the grassroots level.
2. It came into force with the 74th Constitutional Amendment.

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 (Indian Polity & Constitution)

1. (c)

In News: Recently, the Delhi High Court granted statutory bail to Sharjeel Imam in connection with a communal riots case involving allegations of sedition.

Statement 1 is correct

- **Statutory Bail** is a legal provision that **allows an undertrial to be released from custody** based on specific conditions.
 - It is a right granted to an accused, **regardless of the nature of the crime.**
- The provision of **statutory bail** is outlined in **Section 436A of the Code of Criminal Procedure (CrPC).**

Statement 2 is correct

- The undertrial can be released on bail upon their **personal bond, with or without sureties.**
- If the court denies statutory bail, it must provide **written reasons for the refusal.**

Statement 3 is correct

- Statutory bail **does not apply** to offences where the **death penalty** is a potential punishment.
- Any delay caused by the undertrial themselves in legal proceedings is excluded from the detention period calculation.
- The calculation excludes cases where the death penalty is a possible punishment.

2. (c)

Both the Statements are correct.

What are Exit polls?

- Exit polls give **estimates about how people voted** in an election.
- They are arrived at on the basis of interviews with **voters right after they exit** the polling stations, as well as other calculations related to voter data.
- Normally, exit polls are **released on the last day of voting**, as agencies conducting such polls are mandated by the **Election Commission of India (ECI)** to wait until polling has been completed in all phases.
 - This is to avoid influencing voters who are yet to vote.
- It began back in **1957** during the second Lok Sabha elections when the Indian Institute of Public Opinion conducted a poll.

3. (b)

News: The Lok Sabha 2024 elections saw the return of the coalition era with the ruling BJP falling short of the majority but forming the government with the National Democratic Alliance.

What is a coalition government?

- A coalition government is one in which multiple political parties come together and often reduce the dominance of the party that has won the highest number of seats.
- Minority coalition and surplus majority coalition are the two main forms of a coalition government.
 - A surplus majority coalition government is when one political party controls more than the absolute majority of seats in the parliament, which is necessary to have a majority in the government.
 - On the other hand, minority coalition governments do not hold the majority of parliament seats.

What is the history of coalition governments in India?

- The first coalition government in India was formed way back in 1977 with **Morarji Desai** as the Prime Minister.
- The 1980s and the 1990s era saw a number of coalition governments in India with VP Singh, Chandra Shekhar, Inder Kumar Gujral and HD Deve Gowda assuming the role of India's Prime Minister at various points in time.
- In India, the first coalition government to complete its full-term was the **Atal Bihari Vajpayee**-led National Democratic Alliance from 1999 to 2004.

4. (c)

Context: NOTA creates new record in Madhya Pradesh, crosses 1 lakh figure in the recent Lok Sabha elections.

None of the Above (NOTA)

- The NOTA option was first implemented in the 2013 legislative assembly elections held in **four States**- Chhattisgarh, Mizoram, Rajasthan, and Madhya Pradesh and the **union territory of Delhi**.
- The NOTA option allows voters to formally express their rejection of all running candidates.
- If NOTA votes get the most number of votes in a constituency, the next candidate with the second-most number of votes is declared the winner.

- The NOTA button is located at the bottom of the list of candidates on Indian electronic voting machines (EVMs). In the past, voters had to approach the polling officer at the poll in order to cast a negative ballot. However, NOTA has eliminated the necessity.

5. (b)

News: The National Human Rights Commission (NHRC) has expressed serious concern over a practice known as 'Nata Pratha'.

What is Nata Pratha?

- It is a social evil comparable to modern forms of prostitution.
- Under 'Nata Pratha' practice, girls in some communities are sold by their own families either on a stamp paper or otherwise in the name of marriage, having no legal sanctity, in rural areas of Rajasthan, Madhya Pradesh, Uttar Pradesh and Gujarat.
- This practice undermines the well-being, rights, and potential of minors & could lead to gender-based violence and discrimination.

NHRC

- It is a **statutory body**, established under the Protection of Human Rights Act (PHRA), 1993. Its primary function is to promote and protect human rights in the country.
- **Establishment:** The NHRC was established in 1993, in accordance with the **Paris Principles**.

6. (a)

Statement 1 is correct: Article 3 authorizes the Parliament to:

- form a new state by separation of territory from any state or by uniting two or more states or parts of states or by uniting any territory to a part of any state;
- increase the area of any state;
- diminish the area of any state;
- alter the boundaries of any state; and
- alter the name of any state.

Statement 2 is not correct: However, **Article 3** lays down two conditions in this regard: a bill contemplating the above changes can be introduced in the Parliament only with the prior recommendation of the President; and before recommending the bill, **the President has to refer the same to the state legislature concerned for expressing its views within a specified period.**

- The **President (or Parliament) is not bound** by the views of the state legislature and may either accept or reject them.

7. (b)

Context: Recently, Narendra Modi took oath as India's Prime Minister for the third straight term, along with his 71 ministers.

About

- He is the second Indian leader after Jawarharlal Nehru to achieve a third consecutive term as Prime Minister.
- Top leaders from India's neighbourhood and the Indian Ocean region, including Nepal, Bhutan, Bangladesh, Sri Lanka, Mauritius, Seychelles, and Maldives attended the Oath ceremony.

Constitutional Provisions

- The **Third Schedule** of the Indian Constitution prescribes the "Forms of Oaths or Affirmations".
- Article 75(1) says "The Prime Minister shall be appointed by the President and the other Ministers shall be appointed by the President on the advice of the Prime Minister".

How many Ministers can be appointed?

- The total number of Ministers, including the Prime Minister, in the Council of Ministers shall **not exceed 15%** of the total number of members of the House of the People.
- This provision was added by the 91st Constitutional Amendment Act, 2003.

8. (b)

Statement 1 is not correct: The President's oath of office is mentioned in **Article 60** of the Constitution.

Statement 2 is correct: The oath of **office to the President** is administered by the Chief Justice of India.

9. (d)

FPTP is a simple electoral system used in many countries, including the **United States, Canada, the United Kingdom, and India**.

- In this system, the **candidate who receives the most votes** in a constituency or district wins the seat, regardless of whether they have an absolute majority (more than 50% of the votes).
- **Israel** uses the **Proportional Representation (PR) system**: It is an electoral system where the distribution of seats in a legislative body is closely aligned with the **proportion of votes received** by each participating political party or group.
 - Unlike First Past the Post (FPTP), where the candidate with the most votes in each constituency wins, PR aims to ensure that the overall composition of the legislative body reflects the overall distribution of voter preferences.

10. (b)

Context: The Speaker has a key role in parliamentary democracy.

About

- The Constitution of India provides for the offices of the Speaker and Deputy Speaker who, according to **Article 93**, are to be elected "as soon as may be" after the commencement of the House.
- The Speaker is elected by a **simple majority in the House**. The term ends with the dissolution of the House, unless the Speaker resigns or is removed from office before that.
- A motion of no-confidence can be moved against the Speaker with notice of 14 days as per Article 94 of the Constitution. Separately, the Speaker, like any other member of the House, can face disqualification.
- There are **no specific qualifications** for becoming Speaker, which means any member is entitled to be considered. However, the post of Speaker is distinct from other members in the House.
- The salary of the Speaker is drawn from the Consolidated Fund of India unlike for other MPs, which flow from a statute voted on by the House itself.

11. (d)

Context: With the completion of the 2024 Lok Sabha elections, the demand for Special Category Status (SCS) to Andhra is gaining attention again.

About

- The concept of SCS was first brought into existence through the recommendations made by the **Fifth Finance Commission** in 1969.
- It was done to benefit a few States through special grants from the Centre. The focus was on States that had socio-economic issues and geographical disadvantages, such as hilly States.
- Five factors stood as the qualifying benchmark for the granting of SCS — States that comprise a majority tribal population, low density of population, hilly States and close to international borders, States that have socio-economic and industrial backwardness, and lack of adequate State finances.

Which states have special category status?

- In 1969, three states — Jammu & Kashmir (now a Union Territory after revocation of Article 370), Assam and Nagaland — were granted the special category status.
- Subsequently, 8 more states have been granted such a status. It includes Arunachal Pradesh, Manipur, Meghalaya, Mizoram, Sikkim, Tripura, Himachal Pradesh and Uttarakhand.
- Telangana was granted a special status tag after it was carved out of Andhra Pradesh in 2014.

12. (d)

Statement 1 is correct: Cooperative societies are voluntary associations of individuals, usually with a common economic purpose, who come together to pool resources and engage in mutually beneficial economic activities. The 97th Constitutional Amendment of India, passed in 2011, primarily focused on the restructuring and strengthening of cooperative societies in India.

Statement 2 is correct: The 97th Constitutional Amendment made the right to form cooperative societies a fundamental right under Article 19(1)(c).

Statement 3 is correct: Cooperative societies fall under the State List in the Constitution, granting state governments the primary authority to legislate and regulate them.

13. (c)

Statement 1 is correct: The President appoints Chief Election Commissioner and Election Commissioners. They have tenure of six years, or up to the age of 65 years, whichever is earlier. They enjoy the same status and receive salary and perks as available to Judges of the Supreme Court of India.

Statement 2 is not correct: The Union Ministry of Home Affairs does not decide the election schedule. The Election Commission of India is responsible for deciding the election schedule for both general elections and bye-elections.

Statement 3 is correct: The Election Commission of India does resolve disputes relating to splits/mergers of recognized political parties.

14. (c)

In News: There have been calls for heat waves to be declared a notified disaster under the Disaster Management Act, 2005.

Statement 1 is correct

- **Disaster Management Act (2005)** allows states to draw money from the **two funds**, namely the **National Disaster Response Fund (NDRF)** and **State Disaster Response Fund (SDRF)** at the national and state level respectively.
 - The **states first utilise the funds** available in the SDRF, and only if the magnitude of the disaster is unmanageable with the SDRF, states seek the money from the NDRF.

Statement 2 is correct

- While the **entire money of the NDRF** comes from the Central Government, States contribute **25% of the money in the SDRF (10% in case of special category states)**, the rest comes from the Centre.
 - The money in these funds **cannot be used for any purpose** other than response and management of notified disasters.

15. (c)

The principle of Collective Responsibility is a cornerstone of the parliamentary system of government in India. Decisions are taken collectively by the Cabinet, the inner core of the Council of Ministers.

Ministers are individually responsible to the Prime Minister, who can recommend their dismissal to the President.

The Council of Ministers is collectively responsible to the Lok Sabha, not the Rajya Sabha.

The Prime Minister can recommend the dismissal of a minister, but the final decision rests with the President.

16. (c)

Context: The World Day Against Child Labour was observed on June 12.

What is Child labour?

- It is defined as any work that is inappropriate for a child's age, physical, or mental capacity, and its far-reaching consequences can have devastating effects on their development and future.
- In India, the **Constitution explicitly prohibits** children under the age of 14 from working in mines, factories, or hazardous occupations.
- Similarly, the International Labour Organisation (ILO) defines a child as anyone below the age of 18 who should not be involved in hazardous work.

World Day Against Child Labour

- The day is observed on June 12 every year aimed at raising awareness and mobilising efforts to end child labour in all its forms.
- According to United Nations, about sixteen crore children worldwide are victims of child labour, which deprives them of their right to an education and threatens their well-being and future.
- The theme for the World Day Against Child Labour 2024 is "**Let's act on our commitments: End Child Labour**".

17. (b)

Article 19(1)(a) of the Constitution of India guarantees the right to freedom of speech and expression, which includes artistic expression. This article is a fundamental right that allows individuals to express their views and creativity freely, subject to reasonable restrictions.

Article 14 provides the right to equality before the law and equal protection of the laws within the territory of India.

Article 21 guarantees the right to life and personal liberty, but it does not specifically address freedom of artistic expression.

Article 25 guarantees freedom of conscience and free profession, practice, and propagation of religion.

18. (b)

Article 270 of the Indian Constitution specifically deals with the distribution of taxes collected by the Union between the Union and the States. It lays down the framework for tax devolution, outlining the taxes to be shared and the general principles for their distribution.

Article 265 deals with the prohibition of taxes on supply of goods or services or both except by authority of law.

Article 280 provides for the establishment of a Finance Commission to recommend the principles and methodology for tax devolution and grants-in-aid to states.

Article 301 deals with the freedom of trade, commerce and intercourse within the territory of India.

19. (b)

Statement 1 is not correct: Mercy petitions can be filed by persons sentenced to death or imprisonment.

Statement 2 is not correct: The President can only pardon sentences for offenses under Union laws, while Governors have the power for offenses under State laws.

Statement 3 is correct: The power to grant mercy petitions is discretionary, meaning the President or Governor can choose to grant or reject it based on their judgment.

Statement 4 is correct: The Supreme Court can review decisions on mercy petitions and has the power to overturn them in certain circumstances, such as if there are procedural irregularities or violations of fundamental rights.

20. (b)

News: The Jammu and Kashmir administration has made the national anthem mandatory during morning assemblies across all the schools of the union territory.

About

- The directions are aimed at boosting nationalist conscience and culture of patriotism.
- In 2016, the Supreme Court (SC) made it compulsory to play the national anthem before a film. However, two years later SC modified its order and made it optional.

Rules & Regulations related to National anthem

- Showing respect to the National anthem is a **fundamental duty** under Article 51A.
- Under the National Honour Act, 1971 anyone who intentionally obstructs the singing of the national anthem would face a sentence of up to 3 years or fine or both.

Do you know?

- 'Jana Gana Mana', composed originally in Bengali by Rabindranath Tagore, was adopted in its Hindi version as our National Anthem by the Constituent Assembly on 24 Jan 1950.
- It was first sung in 1911 at the **Calcutta Session** of the Indian National Congress (INC).

21. (b)

Statement 1 is not correct: The **Constitution does not mention the post**. However, the official 'Handbook on the Working of Ministry of Parliamentary Affairs' speaks about the 'Appointment and Swearing in of Speaker pro tem'.

Statement 2 is correct: **Administering oaths to the new MPs** is the pro-tem Speaker's primary duty.

22. (c)

In News: Recently, the Post Office Act (2023) received the assent of the President of India and was published in the Gazette of India.

Statement 1 is correct

- **Postal Services in India:** These come under the **Union List (Schedule VII)** of the Constitution of India.
- The Indian Post Office Act, 1898 regulates the postal services offered by the Union government through India Post, a departmental undertaking.
 - It grants the Union government exclusive privilege over conveying letters.

Statement 2 is correct

- Post offices are now **not just an office to distribute letters**, but they are hubs of various **financial and other services, promoting financial inclusion in India**.

23. (b)

Context: The first session of the 18th Lok Sabha began with newly elected MPs taking oaths as members of the House.

About

- Article 99 states that every member of either House of Parliament shall, before taking their seat, subscribe to an oath or affirmation according to the Third Schedule of the Constitution.
- Oath or affirmation is taken in **English or any of the 22 languages** specified in the Indian Constitution.

Enforcement

- If an MP fails to take the oath or affirmation within the prescribed time, their seat may be **declared vacant**.
- The Constitution under Article 104, also specifies a financial penalty of Rs 500 if a person participates or votes in House proceedings without taking an oath.

24. (b)

Statement 1 is not correct: The Census in India has been conducted **regularly since 1871. The first complete Census was conducted in 1881.**

- Initially, the Census was **primarily aimed at assessing revenue and taxation** needs under British colonial rule.

Statement 2 is correct: Constitutional Mandate: The Census of India is conducted under the **provisions of the Census Act of 1948**, which empowers the Government of India to conduct periodic population surveys.

25. (c)

Both the statements are correct: The Telecommunications Act, 2023 **aims to amend and consolidate the law** relating to development, expansion and operation of telecommunication services and telecommunication networks; assignment of spectrum.

- It also seeks to **repeal existing legislative frameworks** like **Indian Telegraph Act, 1885 and Indian Wireless Telegraph Act, 1933** owing to huge technical advancements in the telecom sector and technologies.
- **Powers of interception and search:** Messages between two or more persons may be intercepted, monitored, or blocked on certain grounds.
 - Such actions must be necessary or expedient in the interest of public safety or public emergency.

26. (c)

News: Kerala Assembly unanimously passed a resolution urging the Centre to rename the state as “Keralam” in the Constitution.

Why Keralam?

- The State is generally referred to as 'Kerala' in official records, Kerala is the English word for the Malayali Keralam.
- The move aims to align the official name (Kerala) with the Malayalam pronunciation (Keralam).
- There are several theories regarding its etymological roots. The earliest mention of the word can be found in Emperor Ashoka’s Rock Edict II, dated to 257 BCE.

Feasibility?

- Over a hundred cities and several states have changed their names in India since independence.
- **Article 3** of the Indian Constitution says, Parliament can alter the name of any State.
- For example: Uttaranchal became Uttarakhand in 2007, and Orissa was renamed Odisha in 2011.
- Interestingly, West Bengal has also been seeking a name change to Bangla, which would move it up in the alphabetical listing of Indian states.

27. (c)

Context: On 25 June 1975, the then-President, Fakhruddin Ali Ahmed, declared a state of emergency in India on the "advice" of then-PM Indira Gandhi.

Declarations Made So Far

- This type of Emergency has been proclaimed **three times** so far– in 1962, 1971 and 1975.
- The first proclamation of National Emergency was issued in October 1962 on account of Chinese aggression in the NEFA (North-East Frontier Agency–now Arunachal Pradesh), and was in force till January 1968. Hence, a fresh proclamation was not needed at the time of war against Pakistan in 1965.
- The second proclamation of national emergency was made in December 1971 in the wake of attack by Pakistan. Even when this Emergency was in operation, a third proclamation of National Emergency was made in June 1975. Both the second and third proclamations were revoked in March 1977.
- The first two proclamations (1962 and 1971) were made on the ground of ‘external aggression’, while the third proclamation (1975) was made on the ground of ‘internal disturbance’.

28. (c)

Both the statements are correct: Process to rename a state in India

- **Article 3** authorizes the Parliament to:
 - form a new state by separation of territory from any state or by uniting two or more states or parts of states or by uniting any territory to a part of any state;
 - increase the area of any state;
 - diminish the area of any state;
 - alter the boundaries of any state; and
 - **alter the name of any state.**
- However, **Article 3** lays down two conditions in this regard:
 - a bill contemplating the above changes can be introduced in the Parliament **only with the prior recommendation of the President;**
 - and before recommending the bill, the President has to refer the same to the state legislature concerned for expressing its views within a specified period.

29. (b)

Election of Deputy Speaker

- The Deputy Speaker of Lok Sabha is elected by the Lok Sabha itself from amongst its members.
- **Article 93** states that “The House of the People shall, as soon as may be, choose two members of the House to be respectively Speaker and Deputy Speaker”.
- The election of Deputy Speaker is governed by **Rule 8 of the Rules of Procedure and Conduct of Business in Lok Sabha**. According to Rule 8, the election “shall be held on such date as the Speaker may fix”.
- Usually, the **Speaker is chosen from the ruling party** or ruling alliance, while the **Deputy Speaker is selected from the opposition party** or opposition alliance.
 - However, there have been exceptions to this convention.
 - The first four Deputy Speakers, from 1952 to 1969, were from the ruling Congress.
 - There was no Deputy Speaker for the entire duration of the **17th Lok Sabha (2019-24)**.

30. (c)

What is the PESA Act, 1996?

- PESA Act, 1996 stands for the Provisions of the **Panchayats (Extension to Scheduled Areas) Act, 1996**.
- It is a law enacted by the Parliament to extend the provisions of **Part IX** of the Constitution relating to the **Panchayats to the 5th Scheduled Areas** in a slightly modified form.
- The Act grants tribal communities control over the management and utilization of natural resources, such as land, water, and forests.

31. (b)

In News: Recently, the President of India addressed the Joint Sitting of Lok Sabha and Rajya Sabha in Parliament.

Statement 1 is not correct

- In India, the practice of the President addressing Parliament was established after the promulgation of the **Government of India Act in 1919**.
- Between 1947 and 1950, there was no address to the Constituent Assembly (Legislative).
- After the Constitution of India came into force, President Rajendra Prasad addressed members of Lok Sabha and Rajya Sabha for the first time on January 31, 1950.

Statement 2 is correct

- The **Constitution of India** gives the President and the Governor the power to address a sitting of the legislature.
- **Article 87** 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.

32. (b)

Statement 1 is correct: Part XVIII of the Constitution speaks of emergency provisions.

Statement 2 is not correct: India has witnessed **three instances** where a national emergency was declared **under Article 352 of the Constitution**.

- **First National Emergency (1962):** This was declared during the Indo-China war.
- **Second National Emergency (1971):** Declared during the Indo-Pakistan war that led to the liberation of Bangladesh.
- **Third National Emergency (1975-1977):** It was declared by then Prime Minister Indira Gandhi and lasted for 21 months. It was primarily declared on grounds of internal disturbance.

Statement 3 is correct: Financial emergency under Article 360 has never been declared in India.

33. (b)

Context

- The ruling BJP-led NDA nominee, **Om Birla**, was elected as the Speaker of the **18th Lok Sabha** for a second consecutive term.

Speaker of Lok Sabha

- The presiding officer of **India's Lower House of Parliament**, the Lok Sabha Speaker, is the constitutional and ceremonial head of the House.
- In the absence of the Speaker, the Deputy Speaker discharges his/her functions.
- **Article 93** of the Indian Constitution provides for the election of both the Speaker and the Deputy Speaker.
- Generally, a member belonging to the **ruling party** is elected as Speaker. However, it is not a Constitutional provision.

34. (b)

Statement 1 is correct: The Committee of Privileges of the Rajya Sabha consists of 15 members nominated by the Chairman of the Rajya Sabha.

Statement 2 is not correct: The Chairman of the Committee of Privileges in the Rajya Sabha is appointed by the Chairman of the Rajya Sabha, not the Speaker of the Lok Sabha.

Statement 3 is not correct: Parliamentary privileges are special rights and immunities granted to both Houses of Parliament (Lok Sabha and Rajya Sabha) and their members. They are not exclusive to the members of the Rajya Sabha.

35. (c)

Statement 1 is correct: Article 86 does allow the President to address either or both Houses.

Statement 2 is correct: Prior to the First Amendment of the Constitution, Article 87(1) mandated the President to address both Houses at the commencement of every session. However, this was amended to specify the address at the beginning of the first session after each general election and the first session of each year.

36. (a)

Statement 1 is correct: In the early 1950s, the **first National Development Council (Balwant Rai Mehta Committee report)** recommended the **formation of a democratic system of governance** at the **grassroot level**.

Statement 2 is not correct: In **1993**, by the **73rd Constitutional Amendment Act**, the Panchayat system came to be implemented in the rural areas to allow for development to happen at grassroot level.

Geography

1. Which of the following countries shares borders with Kenya?

1. Ethiopia
2. Somalia
3. Uganda
4. Tanzania

Select the correct answer using the code given below:

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

2. Which of the following are neighbouring countries of Papua New Guinea?

1. Indonesia
2. Australia
3. Sierra Leone
4. Djibouti

Select the correct answer using the code given below:

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

3. Mount Ibu, recently seen in the news, is located in

- (a) Malaysia
- (b) Philippines
- (c) Indonesia
- (d) Iceland

4. With reference to the Millets which of the following statements is/are correct?

1. It is grown in tropical as well as subtropical climate with a mean temperature range of 26-29°C.
2. They have wide adaptability to different soil along with loamy and sandy soil.

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. 'Senkaku Islands' often seen in the news, are disputes among which of the following Nations?

- (a) Japan - China
- (b) Russia - USA
- (c) Japan - Russia
- (d) France - China

6. Which of the following countries share borders with the Netherlands?

1. Germany
2. Belgium
3. Switzerland
4. Ukraine

Select the correct answer using the code given below:

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

7. Consider the following statements regarding the Siang Valley in Arunachal Pradesh:

1. The Siang River, which flows through the valley, is known as the Yarlung Tsangpo in Tibet.
2. The valley is home to the Adi tribe, known for their rich cultural heritage and unique traditions.

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

8. Which among the following countries share a border with Norway?

1. Switzerland
2. Sweden
3. Finland
4. Germany

Select the correct answer using the code given below:

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

9. Consider the following statements:

1. The High Seas are those areas of the world's oceans that are outside national jurisdictions.
2. The High Seas Treaty will become international law only when it is signed and ratified by at least 60 countries.
3. India has signed and ratified the treaty in 2023.

Which of the following statements is/are correct?

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

10. Which of the following statements about the Subansiri River is/are correct?

1. It is a left-bank tributary of the Brahmaputra River.
2. It originates in the Eastern Ghats mountain range.
3. The river is known for its gold deposits.

Select the correct answer using the code given below:

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

11. The terms like *Lal and Mursan*, sometime appeared in the news, are related to:

- (a) Fish varieties
- (b) Volcanic craters
- (c) Local winds
- (d) Water harvesting

12. With reference to the Alaknanda River, which of the following statements is/are correct?

1. It is one of the two headstreams of the river Ganga.
2. At Karanprayag, it meets with the Pindar River.

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

13. Which of the following countries shares borders with Tanzania?

1. Kenya
2. Djibouti
3. Burundi
4. Malawi
5. Ethiopia

Select the correct answer using the code given below:

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

14. With reference to the Andaman and Nicobar Islands, which of the following statements is/are correct?

1. Eight Degree Channel separates the Andaman Islands from the Nicobar Islands.
2. Port Blair, the capital city, is located in the North Andaman.

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

15. Consider the following statements about the Eastern and Western Ghats:

1. Anamudi is the highest peak in the Eastern Ghats.
2. The Western Ghats are comparatively lower in elevation and less continuous than the Eastern Ghats.

3. Most of the Peninsular rivers have their origin in the Western Ghats.

Which of the above statements is/are correct?

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

16. Which among the following countries come under the Hindu Kush Himalaya?

- 1. Bangladesh
- 2. Vietnam
- 3. China
- 4. Myanmar

Select the correct answer using the code given below:

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

17. Consider the following River Systems:

- 1. Amu Darya
- 2. Brahmaputra
- 3. Mekong
- 4. Yellow River
- 5. Salween

How many of the above mentioned rivers originate from the Hindu Kush Himalaya?

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

18. Which of the following states of India shares a border with Bangladesh?

- 1. Assam
- 2. Meghalaya
- 3. Tripura
- 4. Mizoram

Select the correct answer using the code given below:

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

19. Which of the following countries shares borders with Estonia ?

- 1. Germany
- 2. Latvia
- 3. Russia

4. Belarus

Select the correct answer using the code given below:

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

20. The principal inhabited islands Saipan, Guguan, Rota and Tinian are associated with which of the following ?

- (a) Mariana Islands Archipelago
- (b) Japanese Archipelago
- (c) Lucayan Archipelago
- (d) Svalbard Archipelago

21. Consider the following countries:

- 1. Pakistan
- 2. Thailand
- 3. Laos
- 4. Afghanistan
- 5. Myanmar

How many of the above-mentioned countries make the region of Golden Triangle?

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

22. Which of the following statements is true about Lake Natron which was recently seen in the news?

- (a) It is a freshwater lake located in northern Kenya, famous for its flamingo population.
- (b) It is an alkaline lake in Tanzania, providing a critical breeding ground for lesser flamingos.
- (c) It is a saline lake in Ethiopia, known for its diverse fish species and birdlife.
- (d) It is a volcanic lake in Uganda, with unique geological formations and hot springs.

EXPLANATIONS (Geography)

1. (d)

In News : The Republic of Kenya is a country in Eastern Africa.

- It lies on the equator and is bordered by **Ethiopia** to the north, **Somalia** to the east, **Tanzania** to the south, **Uganda** to the west, and **Sudan** to the northwest, with the Indian Ocean running along the southeast border.
- The country is named after Mount Kenya, a very significant landmark.



2. (a)

In News : The Government of India has granted \$1 million as immediate assistance for Papua New Guinea, which has been hit by a devastating flood and landslide that has so far killed 2,000 people.

- Papua New Guinea is an island country that lies in the south-western Pacific.
- It includes the eastern half of New Guinea and many small offshore islands. Its neighbours include **Indonesia** to the west, **Australia** to the south and Solomon Islands to the south-east.
- It is mainly mountainous but has low-lying plains in southern New Guinea. The country has several active volcanoes.



3. (c)

Context: Recently, Indonesia's Mount Ibu volcano erupted, spewing thick columns of grey ash several kilometres into the sky.

About

- Mount Ibu is an active stratovolcano located along the NW coast of Halmahera Island in **Indonesia**.
- Indonesia, an archipelago of 270 million people, has more than 100 active volcanoes. It is prone to volcanic activity because it sits along the “Ring of Fire,” a horseshoe-shaped series of seismic fault lines around the Pacific Ocean.

4. (c)

Both the statements are correct.

What are Millets?

- Millets are a group of small grained cereal food crops popularly known as Nutri-cereals.
- **Varieties:** Multiple varieties of millets are produced such as **Pearl Millets, Sorghum, Finger Millet, Foxtail, Kodo, Barnyard, Proso, Little Millet** and **Pseudo Millets** like Buckwheat and Amaranths.

Condition for Millets Cultivation

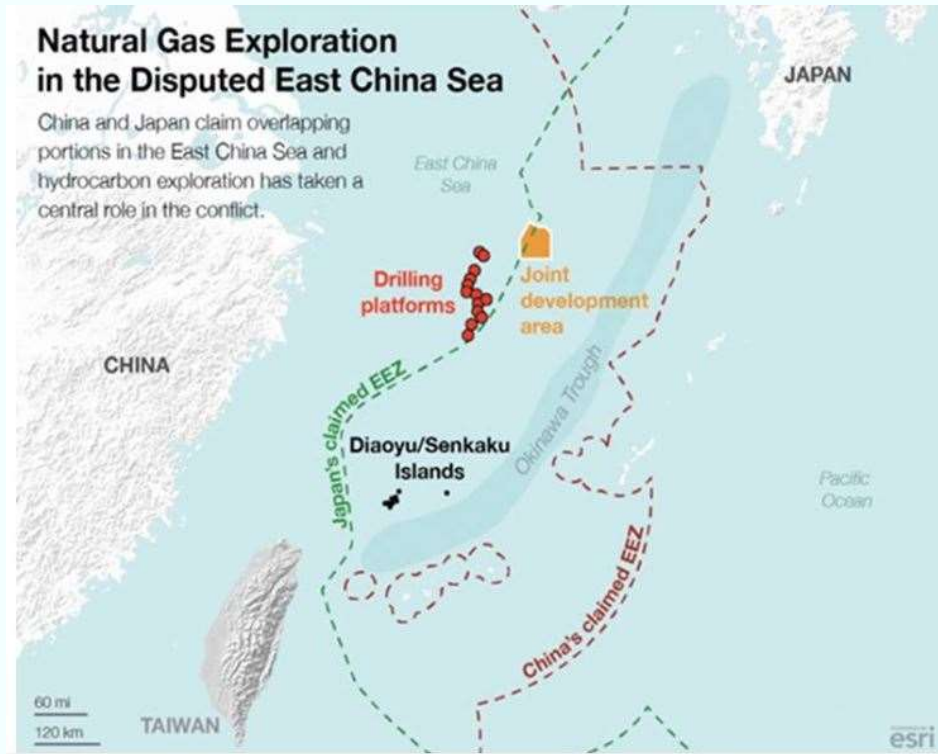
- **Climate:** The Millets are grown in **tropical as well as subtropical** up to an altitude of 2,100 m.
 - A mean temperature range of **26-29°C** during the growth is best for proper development and good crop yield.
- **Soil:** Millet has wide adaptability to different soil from very poor to very fertile and can tolerate a certain degree of alkalinity.

- The best soils are alluvial, **loamy and sandy soil** with good drainage.

5. (a)

The Senkaku Islands have long been a **contentious issue in Japan-China relations**, with both nations asserting historical claims over the uninhabited rocky chain.

- It is located just 205 miles from China’s east coast and 1,200 miles southwest of Tokyo.
- Tensions escalated in 2012 when Beijing perceived Tokyo’s purchase of some of the islands from a private Japanese owner as a direct threat to its sovereignty claims, prompting China to regularly dispatch its Coast Guard and other government vessels to the surrounding waters to bolster its territorial assertions.



6. (a)

In News : The Netherlands has emerged as **India’s third- largest export destination** after the U.S. and UAE during 2023-24, even as the country’s merchandise shipments dipped by more than 3%

Netherlands

- Netherlands, country located in northwestern Europe



The Netherlands is bounded by the North Sea to the north and west, **Germany** to the east, and **Belgium** to the south

7. (c)

Statement 1 is correct: The Brahmaputra River (Alo called Siang River in Arunachal Pradesh) is indeed the lower course of the Yarlung Tsangpo River, which originates in Tibet. It enters India in Arunachal Pradesh and is then called the Siang.

Statement 2 is correct: The Siang Valley is primarily inhabited by the Adi tribe, known for their distinct culture, which includes traditional practices, festivals, and handicrafts.

8. (b)

Context

- Norwegian businesses are showing a lot of interest in India and a manifold increase in cooperation between the two countries is expected in the next 10 years.



9. (a)

In News: The director general of the International Union for Conservation of Nature (IUCN), urged countries worldwide “to strive for a fully functional **High Seas Biodiversity Treaty**” on **World Oceans Day 2024**.

Statements 1 and 2 are correct : High seas are defined by international law as all parts of the ocean that aren't included in the exclusive economic zone, the territorial sea, or the internal waters of a country, or in the archipelagic waters of an archipelagic country.

- This essentially means that the high seas and associated resources are not directly owned or regulated by any country
- **The treaty will become international law only** when it is signed and ratified by at least **60 countries**.

Statement 3 is not correct : Only seven countries — Belize, Chile, Mauritius, Federated States of Micronesia, Monaco, Palau and the Seychelles — have ratified the treaty. **India has neither signed nor ratified the treaty.**

10. (b)

In News: The Department of Fisheries (Arunachal Pradesh) and NHPC Ltd. have formally agreed to implement a fisheries management plan at the 2000 MW Subansiri Lower Hydro Electric Project (SLP) in Assam through a Memorandum of Agreement (MoA).

About Subansiri River

The Subansiri River, also known as the Gold River, is a major **right bank tributary** of the Brahmaputra River that flows through Tibet, Arunachal Pradesh, and Assam in India.

- It flows through the **eastern Himalayas**, entering India through the Miri hills in Arunachal Pradesh.
- Its major tributaries include Laro, Nye, Yume, Tsari, and Kamla.
- The river is known for its **gold deposits**, hence the name "Gold River."

11. (b)

Scientists of the **Physical Research Laboratory, located in Ahmedabad**, have discovered **three new craters** on Mars situated in the Tharsis volcanic region on the planet.

- These are:
 - **Lal Crater:** It was named after **Prof. Devendra Lal**, a renowned Indian geophysicist and former director of PRL from 1972-1983.
 - **Mursan Crater:** It was named after **a town in Uttar Pradesh**, India, that was superimposed on the eastern side of the rim of the Lal crater.
 - **Hilsa Crater:** It was named after **a town in Bihar**, superimposed on the western side of the rim of the Lal crater.

12. (c)

Both the statements are correct.

Alaknanda River

- It rises at the confluence and foot of the Satopanth and Bhagirath Kharak glaciers in Uttarakhand.
 - It is one of the two headstreams of the river Ganga.
- **At Vishnuprayag** it meets **Dhauliganga**, a left bank tributary, and travels west to the town of Joshimath.
- **At Karanprayag**, the Pindar River, a left bank tributary, meets with the Alaknanda River.

13. (b)

The European Commission (EC) has removed Tanzania from the list of countries eligible for its 18 million Euro conservation grant to be launched in East Africa as part of its NaturAfrica initiative.



Tanzania is located in Eastern Africa.

- It is bordered by **Kenya** and Uganda to the North, Rwanda, **Burundi** and the Democratic Republic of Congo to the West and Zambia, **Malawi** and Mozambique to the South.
- The country's eastern border lies in the Indian Ocean which has a coastline of 1,424 km.

14. (d)

Andaman and Nicobar Islands

- **Location:** The islands are located 1,300 km southeast of the Indian mainland in the Bay of Bengal.
 - It extends from 6° 45' N to 13° 41' N and from 92° 12' E to 93° 57' E.
- This archipelago is composed of more than 500 big and small islands, which are divided into two distinct groups of islands – **The Andaman Islands and the Nicobar Islands**.
 - **'Ten Degree Channel'** separates the Andaman Islands in the north from the Nicobar Islands in the south.

The Andaman Islands

- These islands are divided into three major sub-groups – **North Andaman, Middle Andaman, and South Andaman**.
- The capital city of the Andaman & Nicobar Islands **Port Blair** is located in **South Andaman**.

15. (c)

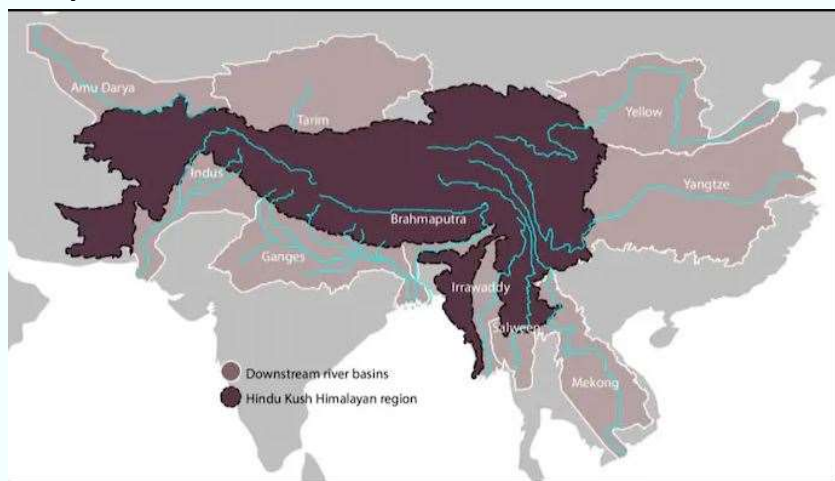
Statement 1 is not correct: Anamudi is the highest peak in the Western Ghats, not the Eastern Ghats. Jindhagada Peak is the highest peak in the Eastern Ghats. The Eastern and Western Ghats meet at the Nilgiri Hills in southern India.

Statement 2 is not correct: The Western Ghats are higher in elevation and more continuous than the Eastern Ghats.

Statement 3 is correct: Most of the Peninsular rivers, including major ones like Godavari, Krishna, and Kaveri, originate in the Western Ghats.

16. (b)

The HKH mountains extend around 3,500 km over eight countries — Afghanistan, Bangladesh, Bhutan, China, India, Nepal, Myanmar, and Pakistan.



17. (d)

The Hindu Kush Himalaya (HKH) mountains extend around 3,500 km over eight countries — Afghanistan, Bangladesh, Bhutan, China, India, Nepal, Myanmar, and Pakistan.

- These mountains are also called the “**water towers of Asia**” because they are the origins of **10 crucial river systems on the continent** — **Amu Darya**, Indus, Ganga, **Brahmaputra**, Irrawaddy, **Salween**, **Mekong**, Yangtze, **Yellow river**, and Tarim.
- These river basins provide water to almost **one-fourth of the world’s population** and are a significant freshwater source for 240 million people in the HKH region.

18. (d)

Context: Recently, the Bangladesh Prime Minister Sheikh Hasina arrived on a two-day visit to India.

Indo-Bangladesh Border

- India has a 4097 km border with Bangladesh.
- The Indo-Bangladesh border passes through West Bengal (2216.7 km), **Assam** (263 km), **Meghalaya** (443 km), **Tripura** (856 km) and **Mizoram** (318 km).
- The entire stretch consists of plain, riverine belts, hills and jungles, with hardly any natural obstacles.

19. (b)

In News : Estonia is looking to partner with India to collaborate on strengthening cybersecurity infrastructure.

Estonia is a Baltic country in Northern Europe.

- The Baltic countries are Estonia, Latvia and Lithuania
- Estonia is located between **Latvia and Russia**.
 - It is also bounded by the Gulf of Finland in the north, the Baltic Sea in the west and Lake Peipus in the east.

20. (a)

In News WikiLeaks founder Julian Assange declared ‘free man’ in Saipan having pleaded guilty to violating US espionage laws in a landmark deal.

- **Saipan** is located in the **Mariana Islands archipelago** in the western Pacific Ocean.



It is the **capital** of the **Northern Mariana Islands (NMI)**

- It is a US commonwealth in the western Pacific which begins roughly 70 km (44 miles) north of Guam and stretches across 14 islands.
- **The principal inhabited islands are Saipan, Guguan, Rota and Tinian.**

21. (b)

Golden Triangle

- It includes the regions of **Myanmar, Laos, and Thailand.**
- It is Southeast Asia's main opium-producing region and one of the oldest narcotics supply routes to Europe and North America.

Golden Crescent

- It includes Afghanistan, Iran, and Pakistan.
- It is a principal global site for opium production and distribution.



22. (b)

Lake Natron, a salt or alkaline lake located in northern Tanzania. It is situated in the East African Rift Valley.

- It is a crucial breeding ground for lesser flamingos. It is a Ramsar Site of international significance.

GOVERNMENT SCHEMES/INITIATIVES

- With reference to the Agnipath Scheme, consider the following statements:
 - It was introduced in 2022, and is also called the Tour of Duty scheme.
 - Candidates between the age of 18 years to 23 years are eligible for enrolling in the Agnipath scheme.
 - Only 50 percent of recruits from a batch are retained for regular service of 15 years.How many of the statements given above are correct?
 - Only one
 - Only two
 - All three
 - None
- Consider the following pairs:

List-I	:	List-II
Operation Blue Star	:	Golden Temple complex
Operation Smiling Buddha	:	Pokhran
Operation Meghdoot	:	Siachen Glacier

How many pairs given above are correctly matched?
 - None of the pairs
 - Only one pair
 - Only two pairs
 - All three pairs
- Consider the following statements about the 'Air of the Anthropocene' initiative:
 - It is a global project that aims to document air pollution levels using traditional photography techniques.
 - It employs light painting techniques and air quality sensors to visualize pollution levels.
 - The initiative has been implemented in several countries, including India.Which of the following statements is/are correct?
 - 1 only
 - 2 and 3 only
 - 1 and 3 only
 - 1, 2 and 3
- Consider the following statements with reference to Pradhan Mantri Awas Yojana (PMAY):
 - Under PMAY-Gramin, beneficiaries are provided financial Assistance of Rs.1.20 lakh in plain and hilly states.
 - Under PMAY-Urban, 3 lakh is provided under Affordable Housing in Partnership (AHP) vertical.Which of the statements given above is/are Incorrect?
 - 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2

5. With reference to the GREAT scheme of the Ministry of Textiles, consider the following statements:
1. It aims to promote innovation and entrepreneurship in the technical textiles sector.
 2. It provides grant-in-aid of up to ₹20 lakhs for a period of 24 months.
 3. It is exclusively open to individual entrepreneurs and excludes startups and companies.
- Which of the statements given above is/are correct?
- (a) 1 only
 - (b) 1 and 2 only
 - (c) 2 and 3 only
 - (d) 1, 2 and 3
6. With reference to the Digital Health Incentive Scheme (DHIS), consider the following statements:
1. It was meant for digitising patients' health records and linking them with the Ayushman Bharat Digital Health Account (ABHA ID).
 2. The scheme is applicable to public hospitals only.
- 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. With reference to the Krishi Sakhi, consider the following statements:
1. Krishi Sakhi is one dimension under the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN).
 2. Krishi Sakhis are trained by professionals on various agriculture related extension services for 56 days on various activities.
- 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
8. 'Viability Gap Funding (VGF) Scheme' is related to which of the following?
- (a) Dam Construction
 - (b) Education of Girl Child
 - (c) Prevention of Road Accidents
 - (d) Offshore Wind Energy Projects
9. Consider the following statements regarding the "School in a Box" initiative:
1. It is designed to cater to children aged 6-18, providing them with educational materials during displacement due to disasters.
 2. The initiative is a collaboration between UNICEF and state governments in India.
- Which of the above statements is/are correct?
- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2

10. Which of the following has recently launched the 'skin bank facility' to treat severe burn injuries and other skin conditions?
- Indian Army
 - All India Institute of Medical Science
 - Indian Council of Medical Research
 - Serum Institute of India
11. 'eSakshya App' recently seen in the news, is related to which of the following?
- Blue Economy in India
 - Recording scene of crime in criminal case
 - Education for Women in Rural India
 - None of the Above
12. Consider the following statements regarding ULLAS-Nav Bharat Saaksharta Karyakram (ULLAS-NILP):
- It is a state-sponsored scheme aimed at achieving 100% literacy in primary schools.
 - Ladakh has become the first Union Territory to achieve full functional literacy under this program.
 - ULLAS-NILP focuses on foundational literacy, critical life skills, and vocational skills for adults aged 15 and above.
 - The program primarily relies on traditional classroom teaching methods.
- Which of the above statements are correct?
- 1 and 4 only
 - 2 and 3 only
 - 1, 2 and 3 only
 - 1, 2, 3 and 4

EXPLANATIONS (Government Schemes/Initiatives)

1. (a)

Statement 1 is correct: It was introduced in **2022**, and is also called the **Tour of Duty scheme**.

Statement 2 and 3 are not correct: Age Limit : Candidates between the **age of 17.5 years to 21 years** are eligible for enrolling in the Agnipath scheme.

- Under the policy, soldiers — called '**Agniveers**' — are recruited for **four years**, at the end of which **only 25 percent** of recruits from a batch are retained for regular service of 15 years.

2. (d)

All three pairs are correctly matched.

Operation Blue Star

- In 1984, Indira Gandhi government ordered a military action, known as 'Operation Blue Star' into the Golden temple in order to remove militants from the **Golden Temple complex**.

Operation Smiling Buddha

- In 1974, India conducted its first nuclear test, code-named "Smiling Buddha," at the **Pokhran** test range in Rajasthan.
- With Smiling Buddha, India became the first nation to conduct a nuclear test apart from the five permanent members of the United Nations Security Council.

Operation Meghdoot

- Due to Pakistan's mountaineering expeditions in **Siachen**, India launched Operation Meghdoot in 1984.
- The operation involved a series of military maneuvers, including airlifting of troops to high-altitude areas, establishing bases, and conducting combat operations on glacial peaks.

3. (b)

Recently, researchers and artists joined forces for a so-called '**painting with light**' international project to **make invisible air pollution in India visible**, demonstrating the health risks posed to the population.

About the 'Air of the Anthropocene' Initiative

- Created by **artist Robin Price** and an environmental scientist at the University of Birmingham to document air pollution levels around the world through photography.
- It employs a **unique method known as 'light painting'** to make the invisible visible. Hence **statement 1 is not correct** as it does not use traditional photography.
- **Statements 2 and 3 are correct:** By using **digital light painting techniques** and **low-cost air pollution sensors**, researchers and artists have collaborated to produce **photographic evidence of pollution levels**.
 - It has been successful in **capturing pollution levels** in cities across three countries – **India, Ethiopia, and the UK**.
 - Particulate matter (PM), including PM10 and PM2.5, is a key focus of the project, with PM concentrations measured in real-time using sensors and visualized through a moving LED array.

4. (d)

In News : The Cabinet has decided to further expand the Pradhan Mantri Awas Yojana and construct 3 crore additional rural and urban houses.

Statements 1 and 2 are not correct : Government of India has been implementing Pradhan Mantri Awas Yojana since **2015-16** to provide assistance to the eligible rural and urban households for construction of houses with basic amenities.

- It has two components, PMAY-U for the urban poor and PMAY-G and PMAY-R for the rural poor.
- **PMAY-U: Ministry of Housing and Urban Affairs** has been implementing PMAY-U under 'Housing for All' Mission since June, 2015.
- The scheme is being implemented through four verticals i.e., Beneficiary Led Construction (BLC), Affordable Housing in Partnership (AHP), In-Situ Slum Redevelopment (ISSR) and Credit Linked Subsidy Scheme (CLSS).
 - Government of India is providing its fixed share as Central Assistance of ₹1.0 lakh under ISSR, **₹1.5 lakh for AHP** and BLC verticals of PMAY-U.
- **PMAY-G:** In order to achieve the target of "Housing for All" in rural areas, the Ministry of Rural Development is implementing PMAY-G with effect from 1st April 2016 to provide assistance to eligible rural households
- Under **PMAY-G, beneficiaries are provided financial Assistance of Rs.1.20 lakh in plain areas and Rs.1.30 lakh in hilly States (including North-eastern States and UTs of Jammu & Kashmir and Ladakh)**, difficult areas and Integrated Action Plan (IAP) districts. Additional assistance of Rs. 12,000/- is extended for construction of toilets.

5. (a)

Statement 1 is correct: The GREAT scheme is indeed designed to foster innovation and entrepreneurship in the technical textiles sector.

Statement 2 is not correct: The scheme does offer grant-in-aid of up to ₹50 lakhs for a period of 18 months to eligible applicants.

Statement 3 is not correct: The GREAT scheme is open to individual entrepreneurs, startups, and companies working on innovative technical textiles projects.

6. (a)

Statement 1 is correct: The scheme was launched by the **National Health Authority (NHA)** in **2023** and will now remain in effect till June 30, 2025.

- It was meant for **digitising patients' health records** and linking them with the **Ayushman Bharat Digital Health Account (ABHA ID)**.

Statement 2 is not correct: Under the scheme, government and private hospitals, clinics, nursing homes, diagnostic labs, and pharmacies are paid Rs 20 for each additional record they digitise, over and above the threshold of 100 transactions a month.

- The scheme is **applicable to both public and private hospitals** and **digital solution companies (DSCs)** creating digital health records.

7. (b)

Statement 1 is not correct: Krishi Sakhi is one dimension under the '**Lakshpati Didi**' program which aims to create 3 crore Lakshpati Didis.

Statement 2 is correct: **Krishi Sakhis are trained by professionals** on various agriculture related extension services for **56 days on various activities**.

- **The Krishi Sakhi convergence program (KSCP)** aims to transform rural India through the empowerment of rural Women as Krishi Sakhis, by imparting training and certification of Krishi Sakhis as Para-extension Workers.

8. (d)

The Union Cabinet approved the **Viability Gap Funding (VGF) scheme** for **offshore wind energy projects**.

- The VGF scheme is a major step towards implementation of the **National Offshore Wind Energy Policy notified in 2015** with an aim to **exploit the vast offshore wind energy potential** that exists within the exclusive economic zone of India.

- **Nodal Agency: Ministry of New and Renewable Energy**, as the nodal ministry, will coordinate with various Ministries/Departments to ensure successful implementation of the scheme.

- **Implementation:** It includes installation and commissioning of 1 GW of offshore wind energy projects (500 MW each off the coast of Gujarat and Tamil Nadu), and upgradation of two ports to meet logistics requirements for offshore wind energy projects.

9. (c)

Statement 1 is correct: The initiative caters to children aged 6-18 to provide portable, comprehensive educational resources to students in remote or underserved areas. The primary goal is to ensure educational continuity during disasters. These kits contain essential educational materials such as textbooks, notebooks, pencils, and other learning aids. They may also include digital resources like tablets or laptops pre-loaded with educational content.

Statement 2 is correct: The initiative is a collaboration between UNICEF and state governments.

10. (a)

News: The Indian Army has established a new skin bank facility to treat severe burn injuries and other skin conditions.

What is a skin bank?

- A skin bank is a facility where the skin of deceased persons is donated.
- After being collected from a donor, the skin is tested for infections, processed, and frozen until it's needed. In a skin bank, the donated skin can be preserved for up to 5 years.
- When a burn victim requires skin for their injuries, a surgical procedure called skin grafting is conducted.

11. (b)

The Union Ministry of Home Affairs (MHA) is testing **eSakshya (e-evidence)**, a mobile-based application.

- The app is to help police **record the scene of crime, search and seizure** in a criminal case and upload the file on the cloud-based platform.
- The police official will have to upload a selfie after the procedure is complete.
- Each recording could be a **maximum four minutes long** and several such files could be uploaded for each First Information Report (FIR).

12. (b)

Statement 1 is not correct: ULLAS-NILP is a centrally sponsored scheme, not a state-sponsored one. It targets adults aged 15 and above, not primary school children.

Statement 2 is correct: Ladakh has indeed achieved full functional literacy under this program.

Statement 3 is correct: The program focuses on foundational literacy, critical life skills, and vocational skills for adults.

Statement 4 is not correct: The program utilizes volunteerism and online modes for implementation, not just traditional classroom teaching.

DEFENSE/INTERNAL SECURITY

1. It has the unique distinction of having been launched from India's first private launch pad. It is also India's first semi-cryogenic engine-powered rocket launch.

Which of the following has been described above?

- (a) Agnibaan
 - (b) Vikram-S
 - (c) Pushpak
 - (d) Falcon 9
2. The term "kamikaze" used in the context of Nagastra-1 refers to:
- (a) A type of GPS technology used for navigation.
 - (b) The ability to abort a mission mid-flight.
 - (c) A Japanese World War II tactic involving suicide attacks.
 - (d) A type of high-explosive warhead.
3. Consider the following statements regarding the Javelin anti-tank missile system:
- 1. The Javelin is a single-man-portable, medium-range missile system known for its "fire-and-forget" capability.
 - 2. The United States has recently offered to co-produce Javelin missiles with India to meet the Indian military's requirements.
 - 3. The use of the Javelin system is limited to target and destroy light armored vehicles only.

Which of the above statements are correct?

- (a) 1 only
 - (b) 1 and 2 only
 - (c) 2 and 3 only
 - (d) 1, 2, and 3
4. Consider the following pairs:

Exercise	:	Participating Countries
1. Exercise HOPEX	:	India and Egypt
2. Exercise Red Flag	:	India and United Arab Emirates
3. Exercise Desert Flag	:	India and United States

How many of the above are correctly matched?

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

EXPLANATIONS (Defense/ Internal Security)

1. (a)

Context: Recently, Chennai-based private space company, **Agnikul Cosmos**, carried out the successful launch of **Agnibaan rocket**.

About

- Agnibaan is a two-stage launch vehicle capable of carrying up to 100 kilograms of payload to an extent of around 700 km to low earth orbit.

Uniqueness of Agnibaan lies in the fact that

- It was powered by the world's first 3D-printed rocket engine;
- It was India's **first semi-cryogenic rocket** engine, flying on a kerosene-liquid oxygen (LOX) fuel-oxidiser mixture; and
- It was launched from **India's first private space launch pad**, Agnikul's own 'Dhanush' pad, and monitored from the company's own mission control centre.

Significance

- Using 3D-printing to make rocket engines speeds up the process of building rockets and lowers the cost of space launches.
- Kerosene fuel (Aviation Turbine Fuel) is widely available and easy to handle.
- Dhanush is a mobile launch pad, which allows flexibility in terms of launch location.

2. (c)

In the context of Nagastra-1, the term "kamikaze" refers to the concept of a weapon or system that is designed to carry out a mission by destroying itself in the process, similar to the Japanese World War II tactic involving suicide attacks. This term is often used to describe drones or missiles that are intended to impact and destroy a target by crashing into it.

3. (b)

Statement 1 is correct: The Javelin is indeed a single-man-portable, medium-range missile system, and its "fire-and-forget" capability is a key feature.

Statement 2 is correct: India and the US have recently discussed the possibility of co-producing Javelin missiles in India.

Statement 3 is not correct: The Javelin system is designed to defeat a variety of targets, including heavily armored vehicles like main battle tanks, as well as other targets like fortifications, bunkers, and helicopters. It is not limited to light armored vehicles and infantry positions.

4. (a)

Exercise HOPEX: India and Egypt

Exercise Red Flag: India and United States

Exercise Desert Flag: India and United Arab Emirates

INTERNATIONAL RELATIONS

1. With reference to the The Organisation for Economic Cooperation and Development (OECD), consider the following statements:

1. It is an international organization that came into force in 1961.
2. India is a member of the organization.

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 countries are a part of the Minerals Security Partnership?

1. Australia
2. India
3. Argentina
4. Norway

Select the correct answer using the code given below:

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

3. Consider the following countries:

1. Oman
2. Nigeria
3. Malaysia
4. Gabon
5. Algeria

How many of the above countries are part of the 'Organization of the Petroleum Exporting Countries (OPEC)?

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

4. Consider the following countries:

1. India
2. United States
3. New Zealand
4. Japan
5. United Kingdom
6. Philippines

How many of the above are partner countries of 'Five Eyes Intelligence Sharing Alliance'?

- (a) Only two
- (b) Only three
- (c) Only four
- (d) Only five

5. With reference to Codex Alimentarius Commission (CAC), which of the following statements is/are correct?

- 1. It was set up in 1963 to protect consumer's health and ensure fair practices in the food trade.
- 2. It is Headquartered in Geneva, Switzerland.

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

6. Which of the following countries is **not** a part of the recently launched '*Biopharmaceutical Alliance*'?

- (a) Japan
- (b) India
- (c) Australia
- (d) South Korea

7. With reference to the China-Pakistan Economic Corridor (CPEC), which of the following statements is/are correct?

- 1. CPEC was launched in 2015 and is part of China's Belt and Road Initiative (BRI).
- 2. It links China's Xinjiang region to Pakistan's Gwadar Port in Balochistan.

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

8. Which of the following are member countries of the ASEAN grouping?

- 1. Thailand
- 2. Japan
- 3. Malaysia
- 4. South Korea
- 5. Philippines

Select the correct answer using the code given below:

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

9. Which of the following countries are the members of Group of Seven (G7)?

1. Turkiye
2. United States
3. United Kingdom
4. Canada

Select the correct answer using the code given below:

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

10. Consider the following countries:

1. South Korea
2. Vietnam
3. New Zealand

How many of the above countries are part of the 'Quad Plus'?

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

11. Which of the following countries has recently signed a defence pact, vowing to assist each other if attacked?

- (a) Israel-United States
- (b) United States-Ukraine
- (c) Russia-China
- (d) North Korea-Russia

12. It is an all-weather, greenfield, deep draft major port of India, an integral part of the India-Middle East-Economic-Corridor (IMEEEEC), enhancing connectivity between India, the Middle East, and Europe. It also aligns with the objectives of the PM Gati Shakti Program, promoting economic activity and employment opportunities.

Which one of the following Indian Ports describes the above features?

- (a) Nhava Sheva of Maharashtra
- (b) Vadhavan of Maharashtra
- (c) V.O. Chidambaranar of Tamil Nadu
- (d) Mormugao of Goa

13. Which among the following countries are a part of the Gulf Cooperation Council (GCC)?

1. Saudi Arabia
2. Iran
3. Oman
4. Jordan

Select the correct answer using the code given below:

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

14. Consider the following countries:

- 1. Afghanistan
- 2. Vietnam
- 3. India
- 4. Bangladesh
- 5. Pakistan

How many of the above-mentioned countries are regional members of the International Centre for Integrated Mountain Development (ICIMOD)?

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

15. With reference to the Indus Water Treaty, which of the following statements is/are correct?

- 1. It was signed between India and Pakistan with the World Bank as a signatory of the pact.
- 2. India got control over the three eastern rivers Indus, Jhelum, and the Chenab.

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

16. With reference to the '*International Hydrographic Organisation (IHO)*', consider the following statements:

- 1. It is the United Nations agency that connects several nations to protect the marine environment.
- 2. India is an active member of it.

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

17. With reference to the United Nations Security Council (UNSC), consider the following statements:

- 1. It was established in 1945 after World War II.
- 2. It has five permanent members and 8 non- permanent members.

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. Recently, which one of the following has become the 100th member of the International Solar Alliance?
- (a) Panama
 - (b) Italy
 - (c) Spain
 - (d) Paraguay
19. Which of the following countries are members of the South Asian Association for Regional Cooperation (SAARC)?
- (a) Afghanistan, India, and Myanmar
 - (b) Bangladesh, Bhutan, and India
 - (c) Afghanistan, China, and Pakistan
 - (d) Bangladesh, Bhutan, and Myanmar

EXPLANATIONS (International Relations)

1. (a)

Statement 1 is correct: The Organisation for Economic Cooperation and Development (OECD) is an international organization that came into force in **1961**, and currently has **38 member countries**.

Statement 2 is not correct: India is not a member.

- **Objective:** To promote policies that improve economic and social well-being, fostering economic growth, contributing to world trade, and enhancing the living standards of people in member countries.

2. (c)

Minerals Security Partnership (MSP) is a strategic grouping of **15 member** states including **Australia**, Canada, Finland, France, Germany, Japan, the Republic of Korea, Sweden, the United Kingdom, US, the European Union, Italy, **Norway**, Estonia and **India**.

- It aims to **catalyse public and private investment** in critical mineral supply chains globally.
- India is already a member of the **Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development**, which supports the advancement of good mining governance.

3. (b)

In News: Recently, OPEC+ extended voluntary oil production cuts until the end of 2025.

About

- **OPEC Plus** refers to a **group of 23 oil-producing countries** that includes:
 - **13 members of OPEC:** Saudi Arabia, the UAE, Iran, Iraq, Kuwait, **Algeria**, Angola, Equatorial Guinea, **Gabon**, Libya, **Nigeria**, the Republic of the Congo, and Venezuela; and
 - **10 other oil-producing countries:** Russia, Azerbaijan, Bahrain, Brunei, Kazakhstan, **Malaysia**, Mexico, **Oman**, South Sudan and Sudan.

4. (b)

In News: Recently, the Australian military announced to start recruiting certain non-citizens to increase its troop numbers.

- Citizens from **the United Kingdom, Canada, New Zealand, and the United States** are being favoured for recruitment.

- These countries are part of the **Five Eyes intelligence-sharing alliance**.
- The focus on Five Eyes partners underscores the importance of international cooperation in defence matters.
- However, the *Philippines, Japan and India* are **not** part of the **Five Eyes intelligence-sharing alliance**.

5. (a)

Codex Alimentarius Commission (CAC)

- It is an intergovernmental food standards body, set up in **1963**.
- It was established jointly by the **UN's Food and Agriculture Organisation (FAO)** and the **World Health Organisation (WHO)**, within the framework of the Joint Food Standards Programme.
- **Objective:** To protect consumer's health and ensure fair practices in the food trade.
- **Members:** Currently, **189** members (188 UN member countries and the European Union).
- **India** became a member in **1964**.
- **Headquarter:** Rome, Italy

6. (c)

In News: Recently, the **Biopharmaceutical Alliance** was launched during the Bio International Convention 2024 held in San Diego, US.

- **Biopharmaceutical Alliance** was launched in response to the **drug supply shortages** experienced during the Covid-19 pandemic by **India, South Korea, US, Japan, and European Union (EU)**.
 - **Australia** is **not** part of the Alliance.
- It aims to put **joint efforts** into building a **resilient supply chain** and to address the challenges of **drug supply shortages** in the bio-pharmaceutical sector.
- The **participants** emphasised the importance of a reliable and sustainable supply chain and agreed to coordinate the respective **countries' bio policies, regulations, and research and development support measures**.

7. (c)

Both the statements are correct.

Context

- The second phase of the China-Pakistan Economic Corridor (CPEC) is expected to be formally announced during the visit of Pakistan's Prime Minister to China.

China-Pakistan Economic Corridor (CPEC)

- The China-Pakistan Economic Corridor (CPEC) is a **3,000-kilometer-long network** of infrastructure projects that **links China's Xinjiang region to Pakistan's Gwadar Port** in Balochistan.
- The **\$62-billion** CPEC, which was **launched in 2015**, is part of China's **Belt and Road Initiative (BRI)**, aimed at expanding its geopolitical influence through investments in infrastructure projects in more than 100 countries.

8. (b)

Context: The India-ASEAN FTA has resulted in disproportionate gains for the ASEAN countries which India wants to correct through the review.

ASEAN

- 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 Fathers of ASEAN: Indonesia, Malaysia, Philippines, Singapore and Thailand.
- Currently, ASEAN has 10 member states. These are : Indonesia, **Malaysia**, the **Philippines**, Singapore, **Thailand**, Brunei, Vietnam, Laos, Myanmar and Cambodia.

9. (b)

News: Italy has invited India to participate in the 50th G7 summit.

About

- This is the 11th time that India has been invited to the G-7 Summit.

What is the G7 Summit?

- It is an international forum held annually for the leaders of the G7 member states of France, **the United States, the United Kingdom**, Germany, Japan, Italy, and **Canada** (in order of rotating presidency), and the European Union (EU).

10. (c)

In News: The **Quad (formerly known as the Quadrilateral Security Dialogue)** has emerged as a strategic group conducting security, diplomatic, and public goods cooperation among its members and within the Indo-Pacific region over the past two decades.

- **Quad** comprises **India, Japan, Australia, and the United States**, has emerged as a significant diplomatic platform aimed at ensuring a **free, open, and inclusive Indo-Pacific region**, along with upholding international law, freedom of navigation, and promoting democratic values in the region.
- **Quad Health Security Partnership:** Health security stands at the forefront of the Quad's collective agenda.
 - They met virtually for the first time in 2021 alongside three new partners — **South Korea, Vietnam, and New Zealand** — informally dubbed the Quad-Plus, and established a range of new initiatives, including the Quad Vaccine Partnership.

11. (d)

News: Recently, Russia and North Korea signed a defence pact, vowing to assist each other if attacked.

About

- The pledge is seen as the revival of a mutual defence agreement under a 1961 treaty adopted by the Cold War allies that was annulled in 1990 when the Soviet Union established diplomatic ties with South Korea.

12. (b)

In News: Recently, the Union Cabinet approved the development of an **all-weather, greenfield**, deep draft **Major Port at Vadhavan in Palghar District of Maharashtra**.

Strategic Significance Vadhavan Port

- **IMEEEEC Integration:** The Vadhavan port will be an integral part of the India-Middle East-Economic Corridor (IMEEEEC), enhancing **connectivity between India, the Middle East, and Europe**.
 - It aligns with the objectives of the **PM Gati Shakti Program**, promoting economic activity and employment opportunities.

- **Global Competitiveness:** The port's world-class facilities will attract mainline mega vessels from international shipping lines.
 - Leveraging **Public-Private Partnerships (PPP)**, it will utilise modern technologies for efficient operations.
- **Trade Flow Enhancement:** Capacities created will facilitate EXIM trade flow through the IMEEEC and the International North South Transportation Corridor (INSTC).

13. (b)

GCC is a political and economic alliance of six Middle Eastern countries—**Saudi Arabia**, Kuwait, the United Arab Emirates, Qatar, Bahrain, and **Oman**.

- It was established in 1981.
- It aims to achieve unity among its members based on their common objectives and their similar political and cultural identities, which are rooted in Arab and Islamic cultures.

14. (c)

ICIMOD is an **intergovernmental knowledge and learning centre** working on behalf of the people of the Hindu Kush Himalaya (HKH).

- It was established in **1983**.
- It is based in **Kathmandu, Nepal** and works in and for **eight regional member countries – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan**.
- Activities range from hands-on research and piloting of solutions, to policy implementation with governments, to mountain advocacy on the global stage.

15. (a)

What is the Indus Water Treaty?

- In **1960**, India and Pakistan signed the Indus Waters Treaty with the **World Bank** as a signatory of the pact.
- Under the treaty, **India got control** over the three eastern rivers **Beas, Ravi, and Sutlej** while **Pakistan got control** of the western rivers **Indus, Jhelum, and the Chenab**.
- According to the treaty, India has the right to generate hydroelectricity through the **run-of-the-river (RoR) projects on the western rivers** which are subject to specific criteria for design and operation.

16. (b)

In News: Recently, the **International Hydrographic Organisation (IHO)** celebrated 'World Hydrography Day' to raise awareness about **hydrography**.

Statement 1 is not correct

- **International Hydrographic Organization (IHO)** (founded in 1921) is an **intergovernmental organisation (not the United Nations (UN) agency)** that plays a crucial role in ensuring the safety of navigation and the protection of the marine environment.
- Its primary aim is to ensure that all the world's seas, oceans, and navigable waters are **accurately surveyed and charted**.

Statement 2 is correct

- **India** has been an **active member of the IHO** since 1955.
- The **Indian Naval Hydrographic Office (INHD)** plays a crucial role in hydrography and navigational safety, and **functions under the Indian Navy** as the **nodal agency** for Hydrographic surveys and nautical charting in India.

17. (a)

Statement 1 is correct: The United Nations Security Council (UNSC) is **one of the principal organs** of the United Nations, responsible for **maintaining international peace and security**.

- It was established in **1945** as part of the UN Charter after the World War II.

Statement 2 is not correct: It is composed of **15 member states**, including **five permanent members** with veto power—China, France, Russia, the United Kingdom, and the United States—and **ten non-permanent members** elected for **two-year terms** by the General Assembly.

18. (d)

Paraguay

Context

- Paraguay has become the **100th member** of the International Solar Alliance.

About

- **India and France jointly launched** the International Solar Alliance (ISA) during 21st Conference of Parties (COP21) to the **United Nations Framework Convention on Climate Change (UNFCCC)** held in Paris in 2015.
- **The ISA aims** to contribute to the implementation of the Paris Climate Agreement through the rapid and massive deployment of solar energy.
- **Members:** At present, **119 countries** are signatories to the ISA Framework Agreement, of which **100 countries** have submitted the necessary instruments of ratification to become full members of the ISA.
 - **Spain** has joined as the **99th** member of the International Solar Alliance.

19. (b)

South Asian Association for Regional Cooperation (SAARC)

- **SAARC was established** in 1985.
- **Secretariat:** It was set up in **Kathmandu, Nepal**, in 1987.
- **It aims** to accelerate the process of economic and social development in its member states through increased intra-regional cooperation.
- **SAARC has eight member countries:** Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri-Lanka.

SCIENCE & TECHNOLOGY

1. Which one of the following is **not correct** regarding the Nipah virus?
 - (a) It is a zoonotic virus.
 - (b) It was first recognized in 1999 during an outbreak among pig farmers in Malaysia.
 - (c) Its symptoms include fever, headaches, muscle pain, vomiting and sore throat.
 - (d) None of the above.
2. With reference to the sickle cell disease, consider the following statements
 1. It is a non-hereditary disease.
 2. India has the highest prevalence of sickle cell disease in South Asia.Which of the statements given above is/are **Incorrect**?
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
3. PraVaHa, developed by ISRO, is used for which of the following purposes?
 - (a) Predicting weather patterns
 - (b) Aerodynamic and aerothermal analysis of aerospace vehicles
 - (c) Monitoring satellite health
 - (d) Mapping terrestrial terrains
4. With reference to the Council of Scientific and Industrial Research (CSIR) which of the following statements is/are correct?
 1. It was established as an autonomous body in 1942 and Headquartered in Mumbai.
 2. It has a dynamic network of 37 national laboratories 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
5. What did the discovery of Reverse Transcriptase demonstrate about the flow of genetic information?
 - (a) It can only flow from DNA to RNA to protein
 - (b) RNA can give rise to DNA
 - (c) Proteins can be directly synthesized from DNA
 - (d) RNA is unnecessary for protein synthesis
6. Which of the following statements accurately describes the "Phenome India" project?
 - (a) A project aimed at collecting genetic data from Indian individuals to develop new drugs.
 - (b) A longitudinal health monitoring initiative to assess risk factors for non-communicable diseases in India.
 - (c) A program to promote traditional medicine practices among Indian communities.

- (d) A study on the impact of climate change on public health in India.
7. Which one of the following is **not correct** regarding Tuberculosis (TB)?
- It is an infectious disease caused by a virus.
 - It spreads through the air when infected people cough, sneeze or spit.
 - Its symptoms include prolonged cough, chest pain, fatigue, weight loss, fever and night sweats.
 - None of the above.
8. Which of the following statements are correct regarding the gene therapy?
- It can replace a disease-causing gene with a healthy copy of the gene.
 - It can inactivate a disease-causing gene that is not functioning properly.
 - It can introduce a new or modified gene into the body to help treat a disease.
 - All of the above.
9. Hawking radiation is a theoretical phenomenon associated with:
- The accretion disk of a black hole
 - The singularity at the center of a black hole
 - The event horizon of a black hole
 - The gravitational lensing effect of a black hole
10. Consider the following statements regarding hydroxyurea:
- It is a myelosuppressive agent.
 - It is used to treat sickle cell disease and thalassemia.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - None of the above
11. With reference to the Black Hole, consider the following statements:
- A black hole does not have a surface, like a planet or star.
 - The centre of a black hole is a gravitational singularity, a point where the general theory of relativity breaks down.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
12. Hydroxyurea, recently seen in the news, is used in which of the following?
- Food preservatives
 - Fruit ripening substances
 - Herbicides
 - drug for treating sickle cell disease
13. With reference to the Hawking Radiation, consider the following the statements:
- The theory was proposed by Stephen Hawking in 1974.
 - The particles that escape the black hole's gravitational pull are called Hawking radiation.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2

- (d) Neither 1 nor 2
- 14.** Consider the following statements regarding nanoparticles:
1. Nanoparticles exhibit unique properties due to their high surface-area-to-volume ratio.
 2. The synthesis of nanoparticles can be achieved through both top-down and bottom-up approaches.
- Which of the statements given above are correct?
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
- 15.** Which of the following best describes the Milgromian Dynamics (MOND) Theory?
- (a) It is a theory that describes the formation of black holes.
(b) It is a theory that modifies Newtonian dynamics to explain the rotation curves of galaxies without invoking dark matter.
(c) It is a theory that explains the origin of cosmic microwave background radiation.
(d) It is a theory that predicts the existence of gravitational waves.
- 16.** Term '*Carnot Cycle*' sometimes appeared in the new, is in context of:
- (a) Poetry and Unemployment
(b) Heat and Engine
(c) Government Budgeting
(d) Socio-cultural advancement
- 17.** What is the primary advantage of placing the Aditya-L1 spacecraft in a halo orbit around the L1 Lagrange point?
- (a) Minimizing the impact of Earth's gravity on the spacecraft
(b) Enabling the spacecraft to capture high-resolution images of the Sun's surface
(c) Allowing continuous and unobstructed observation of the Sun
(d) Reducing the travel time for the spacecraft to reach its destination
- 18.** With reference to the '*Portable Optical Atomic Clocks*', consider the following statements:
1. It is based on Caesium-133 operating at microwave frequencies.
 2. Currently, India's NAVIC Satellite Navigation System is using it.
- 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
- 19.** Consider the following statements:
1. Donanemab is a monoclonal antibody that targets amyloid beta protein plaques in the brain.
 2. Donanemab is the only amyloid-fighting drug approved by the FDA for Alzheimer's treatment.
- 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
20. Which of the following options is correct regarding nitrous oxide (N₂O)?
- (a) It is a greenhouse gas that heats up the atmosphere far more than carbon dioxide.
 - (b) It is also known as "laughing gas".
 - (c) Its vapors are heavier than air.
 - (d) All of the above.
21. Which of the following statements about the Prevention of an Arms Race in Outer Space (PAROS) Treaty is correct?
- (a) The PAROS Treaty was submitted to the United Nations Security Council in 2008.
 - (b) The PAROS Treaty aims to prevent State Parties from placing any type of weapon into orbit or installing weapons on celestial bodies.
 - (c) The PAROS Treaty would replace the 1967 Outer Space Treaty.
 - (d) The PAROS Treaty prohibits the use of any type of satellite for military purposes.
22. With reference to the 'Truenat Platform', consider the following statements:
1. It was developed by the World Health Organisation (WHO) molecular diagnostics.
 2. It is a portable, battery-operated machine that can be deployed at labs, health centres, and even in the field.

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
23. With reference to the Council of Scientific and Industrial Research (CSIR) which of the following statements is/are correct?
1. It was established as an autonomous body in 1942 and Headquartered in New Delhi.
 2. It has a dynamic network of 37 national laboratories 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
24. Consider the following statements with reference to "KAVACH System":
1. It is indigenously developed by Defence Research and Development Organisation (DRDO) for ensuring safety in train operations.
 2. It activates the train braking system automatically if the driver fails to control the train as per the speed restrictions.

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

25. With reference to the Initiative on Critical and Emerging Technology (iCET), consider the following statements:
1. It was announced by India and Japan on the sidelines of the Quad Summit in Tokyo in 2022.
 2. It comprises key technology sectors such as space, semiconductors, advanced telecommunications, artificial intelligence etc.
- 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
26. Mifepristone, recently seen in the news, is related to which of the following?
- (a) Food preservatives
 - (b) Mosquito Repellent
 - (c) Herbicides
 - (d) Abortion pill
27. The terms like *Casgevy* and *Lyfgenia*, sometimes appeared in the new, are related to:
- (a) Tuberculosis
 - (b) Sickle Cell Disease
 - (c) Malaria
 - (d) Neglected Tropical Diseases
28. The term '*Claude 3.5 Sonnet*', recently seen in the news is in context of:
- (a) Fifth Generation Aircraft
 - (b) Large Language Model
 - (c) Cloud Formation in Stratosphere
 - (d) Asteroid Belt
29. Which of the following statements is **NOT** true about Methanol?
- (a) It is also known as wood alcohol.
 - (b) It is a colorless, volatile liquid with a pungent odor.
 - (c) It is used as a solvent in paints and varnishes.
 - (d) The Food Safety and Standards (Alcoholic Beverages) Regulations, 2018 completely prohibit the use of methanol in any liquor.
30. 'Pushpak' recently seen in the news, is related to which of the following?
- (a) Evacuation Operation by India
 - (b) Newly discovered plant species
 - (c) Launch Vehicle by Indian Space Research Organisation (ISRO)
 - (d) None of the above
31. Which one of the following countries along with India, set to launch the '*Space MAITRI Mission*'?
- (a) United States
 - (b) Japan
 - (c) Australia
 - (d) France

32. Which one of the following countries has recently collaborated on the 'TRISHNA Mission' along with India?
- Bangladesh
 - France
 - Israel
 - Qatar
33. Consider the following statements about the Darknet:
- The Darknet is a part of the Deep Web that is not indexed by search engines and requires special software to access.
 - The Darknet is exclusively used for illegal activities such as drug trafficking and cybercrime.
 - Tor (The Onion Router) is a browser commonly used to access the Darknet due to its anonymity features.
 - Law enforcement agencies are unable to monitor or investigate activities on the Darknet.
- Which of the above statements is/are correct?
- 1 and 3 only
 - 2 and 4 only
 - 1, 2 and 3 only
 - 1, 2, 3 and 4
34. The term 'Ozempic' recently seen in the news is a
- Bronze Age Burial Site
 - Diabetes Medication
 - Fruit Ripening Agent
 - Newly Discovered Butterfly Species

EXPLANATIONS (Science & Technology)

1. (d)

Context: Scientists at the Institute of Advanced Virology (IAV) have developed a novel way of generating non-infectious Nipah virus-like particles (VLPs) in the laboratory, which mimic the wild type Nipah virus (NiV).

Nipah virus

- It is a **zoonotic virus** (it is transmitted from animals to humans) and can also be transmitted through contaminated food or directly between people.
- Nipah virus was **first recognized in 1999** during an outbreak among pig farmers in Malaysia.
- Its **symptoms** include fever, headaches, myalgia (muscle pain), vomiting and sore throat.
- Fruit bats** of the family Pteropodidae – particularly species belonging to the Pteropus genus – are the natural hosts for Nipah virus.

2. (a)

Context: The ICMR has invited Expressions of Interest (Eoi) from eligible organisations for the “joint development and commercialisation” of a low dose or paediatric oral formulation of hydroxyurea to treat sickle cell disease in India.

About

- Sickle cell disease is a **hereditary disease** caused by mutations in one of the genes that encode the hemoglobin protein, the disease is inherited as an autosomal recessive trait.
- India has the **highest prevalence** of sickle cell disease in South Asia. Over 20 million people with the disease live in the country.
- Hydroxyurea, a myelosuppressive agent, is an effective drug for treating patients of sickle cell disease, and thalassemia.

3. (b)

The Indian Space Research Organisation (ISRO) has developed Computational Fluid Dynamics (CFD) software named **Parallel RANS Solver for Aerospace Vehicle Aero-thermo-dynamic Analysis (PraVaHa)**.

About

- It can **simulate external and internal flows on launch vehicles**, winged and non winged re-entry vehicles.
- Any aerospace vehicle while moving through the Earth's atmosphere during launch or re-entry is subjected to **severe aerodynamic and aerothermal loads** in terms of external pressure and heat flux.
- PraVaHa has been used extensively in the **Gaganyaan program for aerodynamic analysis** of human-rated launch vehicles, viz, HLVM3, Crew Escape System (CES), and CM.
- Currently, the PraVaHa code is **operational to simulate airflow for Perfect Gas & Real Gas conditions**.

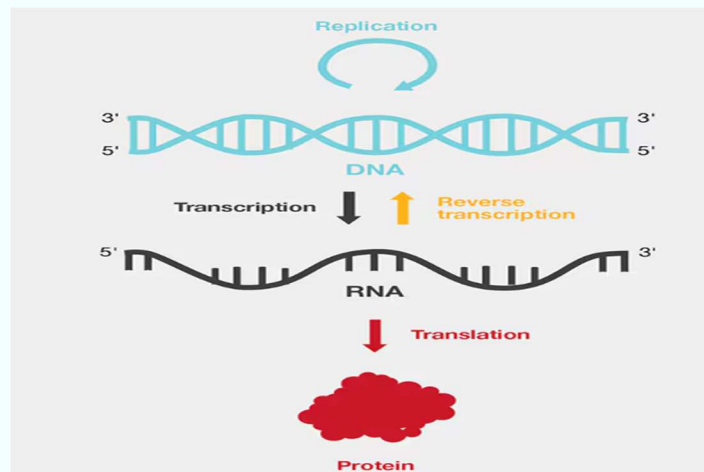
4. (b)

Council of Scientific and Industrial Research(CSIR)

- **CSIR is a R&D organization** known for its cutting edge R&D knowledge base in diverse S&T areas.
- **It was established** as an autonomous body in **1942** and Headquartered in **New Delhi**.
- CSIR has a dynamic network of **37 national laboratories, 39 outreach centers, 1 Innovation Complexes**, and three units with a pan-India presence.
- **The CSIR laboratories** specialize in topics ranging from the genome to geology, food to fuel, minerals to materials, and so on.

5. (b)

- **About Reverse Transcriptase Enzyme (aka RNA-dependent DNA Polymerase)**



It is a **DNA polymerase enzyme** that transcribes **single-stranded RNA into DNA**.

- It is able to synthesise a double helix DNA once the RNA has been reverse transcribed in a first step into a single-strand DNA.
- In the 1970s, the **Reverse Transcriptase enzyme** challenged the '**Central Dogma**' which stated that hereditary information flowed only from DNA to RNA and then to protein, and showed that **RNA could give 'rise' to DNA**.
- Clinicians use reverse transcriptase to convert RNA to DNA, allowing them to estimate the amount of viral material in a given sample.

Applications: Molecular Biology Research

- Cells can create DNA copies from RNA using reverse transcriptase.
- Researchers could now **reverse-transcribe messenger RNAs into DNA fragments**, clone that DNA into bacterial vectors, and study the function of corresponding genes.

6. (b)

The "Phenome India" project is a longitudinal study focused on understanding risk factors for non-communicable diseases like diabetes, heart disease, and liver disease in the Indian population. The Phenome India-CSIR Health Cohort Knowledgebase (PI-CHeCK) project was launched in 2023 by the Council of Scientific and Industrial Research (CSIR). Recently, CSIR's 'Phenome India' project has achieved its target of collecting 10,000 samples, marking a significant step towards precision medicine in India.

7. (a)

Context: India has been engaged in Tuberculosis (TB) control activities for more than 50 years, yet the disease continues to be the country's severest health crisis.

Tuberculosis (TB)

- It is an infectious disease caused by **bacteria (Mycobacterium tuberculosis)** and it most often affects the lungs.
- It **spreads** through the air when infected people cough, sneeze or spit.
- Its **symptoms** include prolonged cough, chest pain, weakness or fatigue, weight loss, fever and night sweats.
- TB kills an estimated 4,80,000 Indians every year or over 1,400 patients every day.
- TB disease is curable, common drugs include rifampicin and isoniazid.

8. (d)

Context: Gene therapy is a technique that modifies a person's genes to treat or cure disease.

About

- Gene therapies can work by several mechanisms:
 - replacing a disease-causing gene with a healthy copy of the gene.
 - inactivating a disease-causing gene that is not functioning properly.
 - introducing a new or modified gene into the body to help treat a disease.

9. (c)

Hawking radiation has never been directly observed, but a research group suggests that it may be observable by **existing telescopes**.

About Hawking Radiation

- The theory proposed by **Stephen Hawking in 1974** describes a phenomenon where black holes emit radiation due to quantum effects near their event horizons.

- In the Universe, pairs of particles constantly appear and disappear. When this happens near a **black hole's event horizon**, one particle might get trapped inside while the other escapes.
- The particles that escape the **black hole's gravitational pull** are called Hawking radiation.

10. (c)

Statement 1 is correct: It is a myelosuppressive agent. Hydroxyurea suppresses bone marrow activity, reducing the production of blood cells.

Statement 2 is correct: It is used to treat sickle cell disease and thalassemia. Hydroxyurea is an effective treatment for both conditions.

- There is a need for pediatric formulation of HU (hydroxyurea), in view of the launch of the **National Mission to eliminate Sickle Cell Anaemia/SCD (by 2047)**.

Sickle Cell disease

- Sickle cell disease is an **inherited blood disorder** that affects hemoglobin, the protein that carries oxygen through the body.
- The genetic error in sickle cell disease leads to red blood cells assuming a **crescent shape**.
 - Unlike the disc-shaped normal cells, the sickle-like cells **cannot move around easily** in the vessels, resulting in blocked blood flow.
- **India has the highest prevalence** of sickle cell disease in South Asia, and over **20 million** sickle cell affected individuals reside in the country.

11. (c)

Both the statements are correct: A black hole **does not have a surface**, like a planet or star. Instead, it is a region of space where **matter has collapsed in on itself**.

- A black hole is formed when a **really massive star runs out of fuel** to fuse, blows up, leaving its core to implode under its weight to form a black hole.
- The centre of a black hole is a **gravitational singularity**, a point where the general theory of relativity breaks down, i.e. where its predictions don't apply.

12. (d)

Context

- The Indian Council of Medical Research (ICMR) has invited Expressions of Interest (EoI) for the "joint development and commercialisation" of pediatric oral formulation of hydroxyurea to treat sickle cell disease in India.

About

- **Hydroxyurea**, a myelosuppressive agent, is an effective drug for treating patients of sickle cell disease, and thalassemia.
- There is a need for pediatric formulation of HU (hydroxyurea), in view of the launch of the **National Mission to eliminate Sickle Cell Anaemia/SCD (by 2047)**.

Sickle Cell disease

- Sickle cell disease is an **inherited blood disorder** that affects hemoglobin, the protein that carries oxygen through the body.
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- **India has the highest prevalence** of sickle cell disease in South Asia, and over **20 million** sickle cell affected individuals reside in the country.

13. (c)

Both the statements are correct: The theory proposed by **Stephen Hawking in 1974** describes a phenomenon where black holes emit radiation due to quantum effects near their event horizons.

- In the Universe, pairs of particles constantly appear and disappear. When this happens near a black hole's event horizon, one particle might get trapped inside while the other escapes.
- The particles that escape the **black hole's gravitational pull** are called Hawking radiation.

14. (c)

Statement 1 is correct: Nanoparticles exhibit unique properties (physical, chemical, optical, etc.) due to their high surface-area-to-volume ratio. This makes them different from their bulk counterparts.

Statement 2 is correct: Nanoparticles can be synthesized through both top-down (breaking down larger materials) and bottom-up (building up from atoms or molecules) approaches.

15. (b)

About Milgromian dynamics(MOND)Theory

- It was proposed by Israeli physicist Mordehai Milgrom in 1982.
- It suggests a **modification to Newtonian dynamics** to explain certain astrophysical phenomena without the need for dark matter.
- The main postulate of MOND is that gravity starts behaving differently to what Newton expected when it becomes very weak, as at the edges of galaxies.
- It is quite successful at predicting galaxy rotation without any dark matter, and it has a few other successes.
- **Limitations:** MOND only changes the behaviour of gravity at low accelerations, not at a specific distance from an object.
 - Newtonian gravity is strongly preferred over MOND on length scales below about a light year.

16. (b)

In News: Today, global warming is forcing us to deliberate on the roles heat plays in our lives.

- Heat is a **form of energy** that plays a pivotal role in thermodynamics, influencing the **transfer and transformation of energy** within and between systems.
 - In the microscope scheme, an object's temperature is the average kinetic energy of its constituent particles.
- Engineers have developed ways to convert heat into mechanical energy, paving the way for machines like the **internal combustion engine (ICE)**.
- ICE converts **heat to (mechanical) work**, and in this sense is a practical application of a theoretical entity called the **Carnot Cycle**.
 - **Carnot Cycle** describes the **maximum thermodynamic efficiency** an engine converting heat to work can have.

17. (c)

About Aditya-L1

- The Aditya-L1 mission is an Indian solar observatory at **Lagrangian point L1** for "Observing and understanding the chromospheric and coronal dynamics of the Sun" in a continuous manner.
- Placing the Aditya-L1 in a halo orbit around **L1 point** has advantages as compared to placing in a Low Earth Orbit (LEO):

- It provides a smooth Sun-spacecraft velocity change throughout the orbit, appropriate for helioseismology.
- It is outside of the magnetosphere of Earth, thus suitable for the "in situ" sampling of the solar wind and particles.
- It **allows unobstructed, continuous observation of the Sun**, and view of earth for enabling continuous communication to ground stations.
- Aditya L1 shall be the **first space based Indian mission to study the Sun**.

18. (d)

In News: A study recently published in the journal Nature introduced a kind of **portable optical atomic clock** that can be used onboard ships.

Statement 1 is not correct

- Traditional atomic clocks, such as those based on **Caesium-133**, are highly stable and have been used for decades to define the duration of a second. These clocks **operate at microwave frequencies**, ticking billions of times per second.
- However, the **Portable Optical Atomic Clocks** uses an **iodine-based system**. It uses **molecular iodine**, which has convenient transitions near a frequency-doubled infrared LASER.

Statement 2 is not correct

- **India's NAVIC satellite navigation system works on Indian atomic clocks, not the Portable Optical Atomic Clocks.**
- A recent breakthrough has led to the creation of a portable optical atomic clock that trades some **degree of accuracy for increased portability and robustness**, making it the most accurate timekeeping device **currently available for maritime use**.

19. (a)

In News: The FDA unanimously voted that the benefits of **Donanemab** outweigh the risks in treating Alzheimer disease.

About Donanemab

- The drug, made by Eli Lilly is a monoclonal antibody that **targets amyloid beta protein plaques** in the brain, one of the defining features of Alzheimer's disease.
- Donanemab aims to remove these plaques and slow the **progression of the disease**. However, it has side effects such as **brain swelling or bleeding**.
- Other similar amyloid-fighting drugs approved by the FDA are **Leqembi and Biogen**.

Alzheimer Disease

- Alzheimer's disease is a **progressive neurodegenerative disorder** that affects millions worldwide.
 - An estimated **7.4% of adults aged 60 and older in India** live with dementia, translating to approximately 8.8 million individuals.
- It primarily targets the brain, leading to a range of debilitating symptoms that impact memory, cognition, behavior, and overall daily functioning.
- Alzheimer's disease is the leading cause of **dementia**, accounting for 60-80% of cases. It poses a significant **burden on individuals, families, and healthcare systems**.
- There is **no cure for Alzheimer's disease** at present, there are several treatment options available that can help manage symptoms.

20. (d)

News: India is the world's second largest emitter of nitrous oxide (N₂O), according to a recent global assessment of N₂O emissions, published in the journal Earth System Science Data.

Nitrogen oxide (N₂O)

- It is a **greenhouse gas** that heats up the atmosphere far more than carbon dioxide.
- It is also known as "**laughing gas**".
- It is soluble in water and its vapors are **heavier** than air.
- It is used as an anesthetic, in pressure packaging, and to manufacture other chemicals.

21. (b)

Statement a is not correct: The PAROS Treaty was submitted to the Conference on Disarmament in 2008, not the United Nations Security Council.

Statement b is correct: The treaty aims to prevent State Parties from placing objects carrying any type of weapon into orbit, installing weapons on celestial bodies, and threatening to use force against objects in outer space.

Statement c is not correct: The PAROS Treaty would complement and reaffirm the importance of the 1967 Outer Space Treaty, not replace it.

Statement d is not correct: The treaty specifically targets the placement of weapons in orbit and on celestial bodies, not the use of satellites for military purposes in general.

22. (b)

In News: Recently, the **Truenat platform** has been hailed for its role in **combating TB** at the 77th **World Health Assembly in Geneva**, a **decision-making body of WHO**.

Statement 1 is not correct

- **Truenat Platform** was developed by **Goa-based Molbio Diagnostics**, is a ground-breaking innovation in the **field of molecular diagnostics**.
- Truenat is a **real-time quantitative micro-PCR system**.

Statement 2 is correct

- It is a **portable, battery-operated machine** that can be deployed at labs, health centres, and even in the field that can **test for over 40 diseases**, including Covid-19, HCV, HBV, HIV, HPV, dengue, malaria, influenza, herpes, typhoid, and TB.

23. (c)

Both the statements are correct.

Council of Scientific and Industrial Research(CSIR)

- **CSIR is a R&D organization** known for its cutting edge R&D knowledge base in diverse S&T areas.
- **It was established** as an autonomous body in **1942** and Headquartered in **New Delhi**.
- CSIR has a dynamic network of **37 national laboratories, 39 outreach centers, 1 Innovation Complexes**, and three units with a pan-India presence.
- **The CSIR laboratories** specialize in topics ranging from the genome to geology, food to fuel, minerals to materials, and so on.

24. (b)

Statement 1 is not correct: **KAVACH** is an indigenously developed ATP system by **Research Design and Standards Organisation (RDSO) in collaboration** with Indian industry and trials facilitated by **South Central Railway** to achieve the corporate objective of safety in train operations across Indian Railways.

Statement 2 is correct: KAVACH is a state of the art electronic system of Safety Integrity Level - 4 standards.

- It is meant to provide protection by preventing trains from passing the signal at Danger (Red) and avoiding collisions.
- **It activates the train braking system automatically if the driver fails to control the train as per the speed restrictions.** In addition, it prevents collision between two Locomotives equipped with a functional KAVACH system.

25. (b)

Statement 1 is not correct: It was announced by **India and USA** on the **sidelines of the Quad Summit** in Tokyo in **2022** and was launched by the **NSAs in 2023.**

Statement 2 is correct: It comprises **key technology sectors** such as space, semiconductors, advanced telecommunications, artificial intelligence, quantum, biotechnology, and clean energy.

- Subsequently, **new areas were included:** biotechnology, critical minerals and rare earths processing technologies, digital connectivity and digital public infrastructure and advanced materials.

26. (d)

Abortion pill

What is mifepristone?

- Mifepristone is part of the two-drug regimen used for medical abortion. A patient first takes mifepristone to induce an abortion and then misoprostol to empty the uterus.
- While mifepristone blocks progesterone — a hormone that supports menstruation and maintaining a pregnancy — misoprostol triggers uterine contractions, causing the body to expel the pregnancy as in a miscarriage.

27. (b)

In News: Recently, the officials of the **Union Tribal Affairs Ministry** informed that **India is getting closer** to developing a gene therapy for sickle cell disease, a genetic blood disorder with a high prevalence rate among the Scheduled Tribes.

- **Sickle Cell Disease** is a genetic blood disorder characterised by **abnormal haemoglobin**, leading to **misshapen red blood cells (sickled cells)** causing blockages in blood vessels, resulting in severe pain, organ damage, and life-threatening complications.
- The mutation in haemoglobin causes **red blood cells** to take on a **crenate shape, impairing oxygen delivery.**
- **Casgevy** (cell-based), **Lyfgenia** (cell-based), and **Exa-cel** (CRISPR-based) are the Gene Therapy for the **Sickle Cell Disease.**
 - **Casgevy:** The FDA-approved cell-based gene therapy, Casgevy, utilises CRISPR/Cas9 technology. Hematopoietic stem cells are modified using CRISPR/Cas9 to increase foetal haemoglobin (HbF) production.
 - **Lyfgenia:** Another cell-based gene therapy, Lyfgenia, complements Casgevy in treating SCD.
 - **Exa-cel:** This CRISPR-based treatment, developed by Vertex and CRISPR Therapeutics, functionally cured SCD for at least one year.

28. (b)

Context: Claude 3.5 Sonnet is a large language model (LLM), and is part of the family of LLMs which is being developed by Anthropic.

About

- These models are known as generative pre-trained transformers, which means they have been pre-trained to predict the next word in large amounts of text.
- Claude 3.5 Sonnet sets some new industry benchmarks in capabilities such as coding proficiency (HumanEval), graduate-level reasoning (GPQA), and undergraduate-level knowledge (MMLU).

29. (d)

Methanol is commonly referred to as wood alcohol because it was historically produced by the destructive distillation of wood. It is a colorless liquid that is volatile and has a strong, pungent odor. Methanol is widely used as a solvent in paints, varnishes, and adhesives. Regulations, such as the Food Safety and Standards (Alcoholic Beverages) Regulations, 2018, strictly control the permissible levels of methanol in alcoholic beverages to prevent methanol poisoning. High levels of methanol are prohibited, but trace amounts that naturally occur during fermentation are allowed.

30. (c)

The Indian Space Research Organisation (ISRO) successfully demonstrated the **landing of the Pushpak reusable launch vehicle** (RLV LEX-03) for the third time.

- The third demonstration of Pushpak **reused** the winged body and flight systems from the second experiment without any modifications.
- The vehicle uses **multiple sensors** such as inertial sensor, radar altimeter, pseudolite system (a ground-based positioning system), as well as the NavIC satellite-based positioning system.

31. (c)

The **New Space India Ltd (NSIL)** is set to launch the **Optimus spacecraft of Australia** under the **Space MAITRI Mission**.

- The mission, named **Space MAITRI (Mission for Australia-India's Technology, Research, and Innovation)**, underscores Space Machines Company's dedication to fostering sustainable space operations.
- **Partnership:** Space Machines Company, an Australian-Indian in-space servicing firm, has signed a crucial Launch Service Agreement with NSIL, a commercial arm of the Indian Space Research Organisation (ISRO).
- **Optimus Spacecraft:** It is the **largest Australian-designed** and built spacecraft to date and the second **spacecraft of Space Machines Company** that NSIL is set to launch by its **Small Satellite Launch Vehicle (SSLV) in 2026**.

32. (b)

In News: Recently, the Indian Space Research Organisation (ISRO) provided details on the **Indo-French Thermal Infrared Imaging Satellite for High-resolution Natural Resource Assessment (TRISHNA) Mission**.

- **TRISHNA Mission** is a collaborative endeavour between the **ISRO** and the **French National Space Agency CNES**.

- It is engineered to deliver high spatial and high temporal resolution monitoring of Earth's surface temperature, emissivity, biophysical and radiation variables for surface energy budgeting at regional to global scale.
- It has two payloads, namely, **Thermal Infra-Red (TIR)**, and **Visible - Near Infra-Red - Shortwave Infra-Red (VNIR-SWIR)**.

33. (a)

Statement 1 is correct: The Darknet is indeed a subset of the Deep Web, not accessible through regular search engines and requires specific software like Tor.

Statement 2 is not correct: While the Darknet is associated with illegal activities, it is also used for legitimate purposes such as protecting privacy and circumventing censorship.

Statement 3 is correct: Tor is a popular browser for accessing the Darknet due to its layers of encryption and anonymization.

Statement 4 is not correct: Law enforcement agencies do have methods to monitor and investigate Darknet activities, although it poses unique challenges due to its anonymity features.

34. (b)

Context: Scientists have figured out how popular medications like Ozempic help people in their weight-loss mechanism.

About Ozempic

- Ozempic is used to treat **type-2 diabetes**. It helps lower sugar levels by promoting the body to produce more insulin.
- The drugs contain the active ingredient **semaglutide** which interacts with neurons in the **dorsomedial hypothalamus**, a region of the brain that plays a critical role in regulating appetite, energy expenditure and even our sleep-wake cycle or the circadian rhythm.

ENVIRONMENT & ECOLOGY

1. With reference to Hoolock gibbon, which of the following statements is/are correct?
 1. It is India's only ape and unique to the Northeast part of the country.
 2. It is listed as Critically endangered under the IUCN Red List of Threatened SpeciesSelect 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. Hollongapar Gibbon Sanctuary has the largest concentration of the hoolock gibbon, one of 20 species of apes on earth. This Sanctuary is located in
 - (a) West Bengal
 - (b) Assam
 - (c) Odisha
 - (d) Mizoram
3. With reference to the Stromatolites which of the following statements is/are correct?
 1. They are layered sedimentary formations that are created by photosynthetic microorganisms.
 2. Hamelin Pool is home to the most extensive living Stromatolite system in the world.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
4. Which of the following statements about the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) is/are correct?
 1. It is a legally binding international treaty that addresses the fair and equitable sharing of benefits arising from the utilization of genetic resources.
 2. It sets out obligations for its contracting parties to take measures in relation to access to genetic resources, benefit-sharing, and compliance.
 3. It was adopted in Nagoya, Japan, in 2010 and entered into force in 2014.Select the correct answer using the code given below:
 - (a) 1 only
 - (b) 2 and 3 only
 - (c) 1 and 3 only
 - (d) 1, 2, and 3
5. With reference to Nagoya Protocol, which of the following statements is/are correct?
 1. It provides a legal framework for the fair and equitable sharing of benefits arising out of the utilization of genetic resources.

2. It was adopted in 2002, as a supplementary agreement to the Convention on Biological Diversity (CBD).

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

6. Recently, India has added two bird sanctuaries, Nagi and Nakti, to the 'Ramsar Sites' list. These sanctuaries are located in which of the following states?

- (a) Nagaland
- (b) Bihar
- (c) Karnataka
- (d) Uttar Pradesh

7. '*Parengyodontium album*' recently seen in the news, is a:

- (a) Bacteria found in soil
- (b) Algae found in freshwater
- (c) Fungus found in marine environments
- (d) Virus found in polluted water

8. Consider the following statements with reference to "Catla"

- 1. It is a non-predatory fish which is only found in India and Bangladesh.
- 2. The IUCN Red List of Threatened Species classified Catla as Vulnerable.

Which of the statements given above is/are Incorrect?

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

9. With reference to the '*Przewalski Horses*', consider the following statements:

- 1. These are a unique equine breed that has never been domesticated.
- 2. IUCN listed it as Critically Endangered in its Red List of Threatened Species.

Which of the statements given above is/are correct?

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

10. Which country has become the first in the world to evacuate an entire island community due to rising sea levels caused by climate change?

- (a) Maldives
- (b) Kiribati
- (c) Panama
- (d) Tuvalu

11. Gandhi Sagar Wildlife Sanctuary, recently seen in the news, is located in

- (a) Gujarat
- (b) Maharashtra
- (c) Uttar Pradesh
- (d) Madhya Pradesh

12. Microalgae are considered a potential source of which of the following?

- (a) Biofuels
- (b) Pharmaceuticals
- (c) Nutritional supplements
- (d) All of the above

13. Consider the following statements with reference to Elephants:

- 1. They are Earth's largest land animals and are highly intelligent.
- 2. They are National Heritage Animals of India.

Which of the statements given above is/are correct?

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

14. Which of the following statements about Eco-Sensitive Zones (ESZs) in India is/are correct?

- 1. ESZs are defined as areas with incomparable environmental resources that require special attention for conservation due to their landscape, wildlife, biodiversity, historical, and natural values.
- 2. The Ministry of Environment, Forest and Climate Change (MoEFCC) regulates ESZs under the Wildlife Protection Act, 1972.
- 3. The National Wildlife Action Plan (2002-2016) mandates that ESZs should be regions located within 10 km of protected areas such as national parks and wildlife sanctuaries.
- 4. The K. Kasturirangan Committee recommended the identification of 59,940 sq. km of the Western Ghats as ESZs, where certain development projects and activities would be regulated.

Select the correct answer using the codes given below:

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

15. Consider the following pairs

Species in News	:	IUCN Red List status
1. Catla	:	Vulnerable
2. Przewalski's Horses	:	Endangered
3. Madagascar Baobab	:	Least Concern

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two

- (c) All three
(d) None
16. The Greater Adjutant Stork, one of the most endangered bird species, is primarily found in which Indian state?
(a) Gujarat
(b) Kerala
(c) Assam
(d) Rajasthan
17. With reference to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), consider the following statements:
1. It is legally binding on the member states.
2. India is a signatory to this convention.
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 with reference to the United Nations Convention to Combat Desertification (UNCCD).
1. The UNCCD is the only legally binding framework set up to address desertification and the effects of drought.
2. India became a signatory to UNCCD in 2015 and ratified it in 2018.
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
19. The Pantanal, currently experiencing an unprecedented surge in wildfires, is primarily located in which South American country?
(a) Argentina
(b) Brazil
(c) Chile
(d) Colombia
20. The term '*Filoboletus Manipularis*', sometimes appeared in the news, is in the context of:
(a) Fungi
(b) Bacteria
(c) Algae
(d) Virus
21. Which of the following statements about bioluminescence is **not correct**?
(a) It is a natural phenomenon observed in various living organisms.
(b) It is a result of enzyme-catalyzed chemical reactions.

- (c) It is exclusively used for attracting prey.
(d) It is hypothesized to have originated during the Cambrian Explosion.
- 22.** With reference to Miyawaki method consider the following statements:
1. It is an approach to ecological restoration and afforestation development.
 2. It was pioneered in the 1970s by Indian environmentalists Sunderlal Bahuguna.
 3. It involves planting native trees and they grow ten times faster in this method.
- Which of the statements given above is/are correct?
- (a) 1 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1 and 3 only
- 23.** With reference to the Persistent Organic Pollutants (POPs), consider the following statements:
1. They resist environmental degradation through chemical, biological, and photolytic processes.
 2. They can cause a range of adverse health effects, including cancer, reproductive disorders, immune system disruption, and neurological effects.
- 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
- 24.** Which of the following species of crocodile is listed as Critically Endangered on the IUCN Red List?
- (a) Estuarine Crocodile
(b) Gharial
(c) Mugger Crocodile
(d) None of the above
- 25.** With reference to the Saltwater crocodile, which of the following statements is/are correct?
1. It is the largest living reptile on earth.
 2. It is listed under Schedule 1 of the Wild Life (Protection) Act, 1972.
- 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
- 26.** With reference to the Bhitarkanika National Park, which of the following statements is/are correct?
1. It is a Ramsar site located in the estuaries in northeast Kendrapara district in Odisha.
 2. The park is inundated by the rivers Brahmani and Baitarani.
- 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

27. With reference to the Galathea National Park, which of the following statements is/are correct?

1. It is located on the Lakshadweep Islands in the Arabian Sea.
2. It is a nesting site for the largest turtle in the world, Leatherback sea turtles.

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

28. Consider the following statements regarding Kaziranga National Park:

1. It is situated on the banks of the Ganges River.
2. It is home to the endangered Western Hoolock Gibbon, the only ape species found in India.
3. It is a UNESCO World Heritage site.
4. The Manas River runs through the park.

Which of the above statements are correct?

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

30. Term '*Indiconema*' sometimes appeared in the news, is in the context of:

- (a) Dark Energy
- (b) Contagious Disease
- (c) Superconductivity
- (d) Diatom

31. With reference to the '*Diatoms*', consider the following statements:

1. These are microscopic algae that play a crucial role in our everyday lives.
2. They form the base of the aquatic food chain and serve as excellent indicators of aquatic health.

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

32. With reference to Iberian Lynx consider the following statements:

1. It is the world's most endangered dog.
2. It is found across Spain and Portugal.
3. The IUCN Red list categorizes it as a 'Vulnerable' species.

Which of the statements given above is/are correct?

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

33. With reference to the Wild Boars, consider the following statements:

1. They are nocturnal, and omnivorous.
2. They are listed as Vulnerable on the IUCN Red List of Threatened Species.

Which of the statements given above is/are correct?

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

34. Recently, India's largest leopard safari was opened at

- (a) Gir National Park
- (b) Satpura National Park
- (c) Jawai Leopard Reserve
- (d) Bannerghatta Biological Park

35. With reference to the Greater One-Horned Rhino, which of the following statements is/are correct?

1. Pobitora reserve forest in Assam has the highest One-Horned rhino density in the world.
2. The IUCN status of One-Horned Rhino is Vulnerable.

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

36. Consider the following pairs

Species in News	:	IUCN Red List status
1. Asian king vulture	:	Critically Endangered
2. Mainland serow	:	Vulnerable
3. Greater Adjutant Stork	:	Near Threatened

How many of the above pairs are correctly matched?

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

37. Recently, which of the following Tiger Reserve in India has launched the first advanced Artificial Intelligence (AI) system for early detection of forest fires?

- (a) Nameri
- (b) Pench
- (c) Anamalai
- (d) Nagarhole

EXPLANATIONS (Environment & Ecology)

1. (a)

Statement 1 is correct and Statement 2 is incorrect.

Hoolock gibbon

- The hoolock gibbon is a primate species of genus Hoolock in the gibbon family, Hylobatidae. It is one of 20 species of gibbons on Earth.
- It is **India's only ape and found in the Northeast**. Also it is the smallest and fastest of all apes.
- The Hoolock Gibbon is categorised into two types: **western hoolock gibbon** and **eastern hoolock gibbon**
- **Conservation status:** IUCN categorised the **western hoolock gibbon** as **endangered** and the **eastern hoolock gibbon** as **vulnerable**.
- Also both the species are protected under the Indian Wildlife Protection Act 1972 and are included in Schedule 1.

2. (b)

Context: The Northeast Frontier Railway (NFR) is planning to build canopy bridges across track in Assam gibbon habitat.

Hollongapar Gibbon Sanctuary

- A 1.65-km-long track – set to be doubled and electrified – divides the 2,098.62-hectare **Hollongapar Gibbon Sanctuary** in the Jorhat district (Assam).
- The sanctuary has the **largest concentration** of the hoolock gibbon, one of 20 species of apes on earth.

Hoolock Gibbon

- The Hoolock Gibbon is categorised into two types: **western hoolock gibbon** and **eastern hoolock gibbon**
- **Conservation status:** IUCN categorised the **western hoolock gibbon** as **endangered** and the **eastern hoolock gibbon** as **vulnerable**.

3. (c)

Both the statements are correct.

Context

- In a study, an international team reported the discovery of living shallow-marine stromatolites on **Sheybarah Island in the Red Sea, Saudi Arabia**.

About

- **Stromatolites are layered sedimentary formations** (microbialite) that are created mainly by photosynthetic microorganisms such as cyanobacteria, sulfate-reducing bacteria, and Pseudomonadota (formerly proteobacteria).
- **Characteristics:** The microbes are active on the surface layer of the Stromatolites, while the underlying build-up is a lithified remnant of former microbial surface communities that could be interpreted as a trace-fossil.
- **Significance:** Stromatolites are partially responsible for the **Great Oxygenation Event**, which drastically changed the composition of our atmosphere by introducing oxygen.
- **Hamelin Pool** is home to the most extensive living Stromatolite system in the world.

4. (d)

The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) is a supplementary agreement to the **Convention on Biological Diversity (CBD)**.

It is a **legally binding** international treaty (supplementary agreement to the CBD) aimed at ensuring fair and equitable benefit-sharing from the use of genetic resources. It **sets out obligations** for countries on access, benefit-sharing, and compliance, and it was indeed **adopted** in Nagoya, Japan, 2010 and **came into force** in 2014.

5. (a)

Statement 1 is correct and Statement 2 is incorrect.

Nagoya Protocol

- The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) is a supplementary agreement to the **Convention on Biological Diversity (CBD)**.
- It provides a transparent **legal framework** for the effective implementation of one of the three objectives of the CBD: **the fair and equitable sharing of benefits arising out of the utilization of genetic resources**.
- It was adopted in **2010 in Nagoya**, Japan and entered into force in **2014**.

6. (b)

News: India has added two bird sanctuaries from Bihar, Nagi and Nakti, to the 'Ramsar Sites' list.

About

- The newest 'Wetlands of International Importance', both man-made reservoirs situated in the Jhajha forest range of Jamui District in Bihar, were added to Ramsar Sites as part of World Environment Day.
- The two catchments feature dry deciduous forests surrounded by hills.
- With the two sites, India now equals China in terms of Ramsar Sites. Both countries have 82 recognised waterlogged ecosystems in the country. The UK with 175 has the highest number of such sites, followed by Mexico, 144.

7. (c)

The marine fungus *Parengyodontium album* has been discovered to break down oceanic polyethylene (PE) plastic. This fungus converts PE-derived carbon into fungal biomass, using it as an energy source. The process begins with the photodegradation of PE by UV sunlight. This discovery suggests the potential for *P. album* to help degrade floating oceanic plastic litter.

8. (d)

In News : According to a new report released by the United Nations ,Catla was one of the top 10 species of aquatic animals harvested by humans in 2022,

Statements 1 and 2 are not correct : Catla (*Labeo catla*) is a non-predatory fish and its feeding is restricted to the surface and mid-waters. It is "endemic to the riverine system in northern India, Indus plain and adjoining hills of Pakistan, Bangladesh, Nepal and Myanmar, and has been introduced later into almost all riverine systems, reservoirs and tanks all over India.

- **IUCN Red List status :** Least Concern.

9. (a)

In News: Recently, Przewalski horses, a wild horse species, returned to Kazakh steppes — the native habitat of this endangered species.

Statement 1 is correct

- **Przewalski's Horses (aka Takhi)** are a unique equine breed that has **never been domesticated**.
- They are the last truly wild horses **native to the steppes of Kazakhstan, Mongolia, and China**.
- These horses are named after the Russian explorer **Nikolai Przhevalsky**.

Statement 2 is not correct

- Today, more than 500 Przewalski's horses are free-ranging in **Mongolia**, with additional populations in **China and Kazakhstan**.
- Their successful reintroduction led to the **IUCN** changing the status of Przewalski's horses from **'Extinct in the Wild' to 'Endangered' (not Critically Endangered) in 2011**.

10. (c)

In News: Panama has become the first nation to relocate an entire island community due to the devastating effects of climate change. Hundreds of Indigenous families from Gardi Sugdub, a low-lying island, have been forced to leave their ancestral homes as rising sea levels threaten their existence.

About Panama

- **Geography:** It is bordered by Costa Rica and Colombia, and is situated between the Caribbean Sea and the North Pacific Ocean.
- **Capital:** Panama City

11. (d)

Context: The Madhya Pradesh government has completed preparations for its ambitious cheetah reintroduction project at Gandhi Sagar Wildlife Sanctuary, which is slated to be the second home for cheetahs in India after Kuno National Park.

Gandhi Sagar Wildlife Sanctuary

- It is a wildlife sanctuary located in Madhya Pradesh. It is spread over two districts of Madhya Pradesh i.e. Mandsaur and Nimach.
- It is known for some rare wildlife species like Wild Dogs (Dholes), Chinkara, Leopard, and Otter.

Cheetah

- There are 5 recognised subspecies of cheetah:
 1. Northwest African cheetah *Acinonyx jubatus hecki*
 2. East African cheetah *Acinonyx jubatus fearsoni* (or *A.j. raineyi*)
 3. South African cheetah *Acinonyx jubatus jubatus*
 4. Northeast African cheetah *Acinonyx jubatus soemmerringi*
 5. Asiatic cheetah *Acinonyx jubatus venaticus*
- **IUCN Status:** All cheetah subspecies are listed as **vulnerable** by the IUCN, except the Northwest African and Asiatic cheetah which are **critically endangered** at present.

12. (d)

CSIR-Indian Institute of Chemical Technology (IICT) scientists identified **microalgae** as a potential **protein supplement**. Scientists have spotlighted the potential of **Chlorella Growth Factor (CGF)** as an ideal

ingredient for a **wide range of food and feed applications**. CGF presents a promising alternative protein source that can significantly contribute to human and animal diets.

Microalgae are seen as a promising source for **biofuels** because they can produce large amounts of lipids (fats and oils), which can be converted into biodiesel.

Microalgae are rich in **bioactive compounds** such as antioxidants, anti-inflammatory agents, and antimicrobial substances.

About Microalgae

- Microalgae are a group of **autotrophic microorganisms** that live in **marine, freshwater and soil ecosystems** and produce organic substances in the process of photosynthesis.
- They are a diverse group of microscopic aquatic organisms.
- They differ from plants in basic ways.
 - For instance, they grow in water instead of on land and absorb nutrients directly instead of via roots.
 - While some microalgae are seen as harmful, others provide useful products.

13. (c)

The study's findings indicate that elephants "address one another with something like a name.

Both Statements are correct; Elephants are Earth's largest land animals and are highly intelligent.

- They are known to have keen memory and problem-solving skills and sophisticated communication.
- The Government of India has declared the Indian elephant as a **National Heritage Animal**. Indian elephants are also provided the highest degree of legal protection by listing it in Schedule I of the Wildlife (Protection) Act, 1972.

IUCN Status : There are three species of elephant: **African Savanna (Bush), African Forest and Asian.**



14. (a)

Statement 1 is correct: ESZs are defined as areas with incomparable environmental resources that require special attention for conservation due to their landscape, wildlife, biodiversity, historical, and natural values.

Statement 2 is not correct: ESZs are regulated by the MoEFCC under the Environment Protection Act, 1986, not the Wildlife Protection Act, 1972.

Statement 3 is correct: The National Wildlife Action Plan (2002-2016) mandates that ESZs should be regions located within 10 km of protected areas such as national parks and wildlife sanctuaries.

Statement 4 is correct: The K. Kasturirangan Committee recommended the identification of 59,940 sq. km of the Western Ghats as ESZs, where certain development projects and activities would be regulated.

15. (b)

Catla (*Labeo catla*) is a non-predatory fish and its feeding is restricted to the surface and mid-waters.

- **IUCN Red List status** : Least Concern.

Przewalski's Horses : These horses are named after the Russian explorer Nikolai Przhevalsky. They are the world's last remaining genetically wild species of horse.

- **IUCN Red Status** : Endangered

Madagascar Baobab (*Adansonia Madagascariensis*) : It is small to large tree endemic to Madagascar. Six of the world's eight baobab species are indigenous to Madagascar.

- **IUCN Red List of Threatened Species:** Least Concern

16. (c)

The greater adjutant stork also known as 'Garuda', one of the most endangered bird species, is facing severe threats due to rapid urbanization in Assam. The Greater Adjutant Stork is also known as the "Hargila" in Assam, India.

About

Scientific Name: *Leptoptilos dubius*

Genus: Part of the stork family, Ciconiidae, which includes about 20 species of large, long-necked birds.

Habitat: Historically found across southern Asia and mainland Southeast Asia.

- Now mainly confined to small regions, primarily in Assam, India.
- There are three known breeding sites: one in Cambodia and two in India (Assam and Bihar).
- In Assam, they inhabit the Brahmaputra valley, especially in Guwahati, Morigaon, and Nagaon districts.
- In Bihar, a smaller population is found around Bhagalpur.

Protection Status:

- **IUCN Red List:** Endangered
- **Wildlife (Protection) Act 1972:** Schedule IV

Diet:

- Primarily carnivorous.
- Feeds on fish, frogs, snakes, other reptiles, eels, birds, offal, and carrion.
- Exhibits scavenging behavior similar to vultures.

Significance:

- Regarded as the mount of Vishnu, a major deity in Hinduism. Revered by some as "Garuda Maharaj" (Lord Garuda) or "Guru Garuda" (Great Teacher Garuda).
- Assists farmers by killing rats and other farm pests.

17. (c)

Statement 1 is correct: Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is an international legally binding agreement aimed at ensuring "that international trade in specimens of wild animals and plants does not threaten their survival".

Statement 2 is correct: India is a signatory to this convention and has also ratified it in 1976. It has three appendices: Appendix I includes species threatened with extinction. Trade-in specimens of these species are permitted only in exceptional circumstances. Appendix II provides a lower level of protection. Appendix III contains species that are protected in at least one country, which has asked other CITES Parties for assistance in controlling.

18. (a)

In News: 17 June 2024 will mark the 30th anniversary of the Bonn-based United Nations Convention to Combat Desertification (UNCCD).

Statement 1 is correct : United Nations Convention to Combat Desertification (UNCCD) was adopted in 1994 and is the **sole legally binding international agreement linking environment and development to sustainable land management.**

Members : There are 197 Parties to the Convention, including 196 country Parties and the European Union.

Statement 2 is not correct : India became a signatory to UNCCD on 14th October 1994 and ratified it on 17th December 1996.

- The Ministry of Environment, Forest and Climate Change is the nodal Ministry in the Government of India for the UNCCD, and Desertification Cell is the nodal point within the Ministry to coordinate all issues pertaining to the Convention

19. (b)

In News: The Pantanal wetlands in Brazil are experiencing an alarming increase in wildfires due to exceptionally dry weather patterns.

About Pantanal Wetland

- The Pantanal, situated in the heart of South America, is the world's largest tropical wetland.
- It primarily lies within Brazil but extends into Bolivia and Paraguay. It is a unique and complex ecosystem, characterized by its seasonal flooding cycles.
- It is a UNESCO World Natural Heritage Site and Biosphere Reserve, indicating its global importance for biodiversity and conservation. It also encompasses two Ramsar sites, recognizing its significance as a wetland habitat.

20. (a)

In News: Recently, scientists discovered the **Filoboletus Manipularis**, a rare bioluminescent mushroom emitting a bright green glow at night in **Western Ghats region in Kerala.**

- **Filoboletus Manipularis** is part of the **Mycenaceae Family Fungi** and stands out for its **unique ability to produce light.**
- It exhibits this trait most prominently in its **stipe (stem) and pileus (cap)**, which emit a **greenish light** that can be observed during the night.
- The **high humidity and low light conditions** in the forests of Western Ghat create an **ideal environment for many bioluminescent species.**
- In general, **mushrooms** constitute **secondary saprophytic fungi** of the forest ecosystem that play a very important role in the **decomposition of plant litter.**

21. (c)

Bioluminescence is found in many organisms, including certain species of fish, jellyfish, fungi, and bacteria. **Statement (a) is correct**

Bioluminescence involves a chemical reaction facilitated by enzymes, typically luciferase, which produces light. **Statement (b) is correct**

Bioluminescence is used for various purposes, including attracting prey, deterring predators, communication, and mating. It is not exclusively used for attracting prey only. **Statement (c) is not correct**

It is hypothesized that bioluminescence may have originated during the Cambrian Explosion, a period of rapid evolutionary development. **Statement (d) is correct.**

22. (d)

NHAI will undertake a unique initiative to plant **Miyawaki plantation** on land parcels adjacent to National Highways at various locations.

Statements 1 and 3 are correct : Miyawaki plantations, also known as Miyawaki method, is a unique **Japanese** approach to ecological **restoration and afforestation development**.

- **Benefits** : It aims to create dense, native, and biodiverse forests in a short period of time.
- With this method, **trees grow ten times faster** and the plantations act as a sound and dust barrier.
- It helps in better micro-climatic conditions such as improvement in air & soil quality.
- It will also help in biodiversity conservation, rapid growth of green cover, efficient carbon absorption, soil restoration and in habitat creation for local flora and fauna.

Statement 2 is not correct : Miyawaki method was pioneered in the **1970s by Japanese botanist** and expert in plant ecology **Mr. Akira Miyawaki**. This technique of plantation involves planting native trees, shrubs and groundcover plants within every square metre.

23. (c)

Both the statements are correct: POPs are organic chemical substances, that is, they are **carbon-based**.

- They **resist environmental degradation** through chemical, biological, and photolytic processes.
- **Toxicity**: Many POPs are toxic to both humans and wildlife.
 - They **can cause a range of adverse health** effects, including cancer, reproductive disorders, immune system disruption, and neurological effects.

24. (b)

The **Gharial (*Gavialis gangeticus*)** is listed as **Critically Endangered** on the IUCN Red List due to its severe population decline, primarily caused by habitat loss, depletion of fish resources, and entanglement in fishing nets. The Estuarine Crocodile (*Crocodylus porosus*) and the Mugger Crocodile (*Crocodylus palustris*) have different conservation statuses, with the Estuarine Crocodile being listed as Least Concern and the Mugger Crocodile as Vulnerable.

25. (c)

Both the statements are correct.

Estuarine or saltwater crocodile (*Crocodylus porosus*)

- They are the **largest living reptile** on earth.
- **They are found** in only three locations in India: Bhitarkanika, the Sundarbans and the Andaman and Nicobar Islands.
- **IUCN Status**: Least Concern
- It is listed under **Schedule 1** of the Wild Life (Protection) Act, 1972.

26. (c)

Both the statements are correct.

Bhitarkanika National Park

- **It is a national park and a Ramsar site** located in the estuaries in northeast Kendrapara district in Odisha.
- **Rivers:** The park is inundated by the rivers **Brahmani, Baitarani, Dhamra, and Pathsala**.
- It hosts many **mangrove species**, and is the second largest mangrove ecosystem in India.
- **Gahirmatha Beach** separates the swamp region and mangroves from the Bay of Bengal.
- **Flora and fauna:** The national park is home to **Saltwater crocodile (Crocodylus porosus), Indian python, king cobra, black ibis, darters** and many other species.

27. (b)

Galathea National Park

- Galathea National Park is a national park located in the Union Territory of Andaman and Nicobar Islands, India.
- It is located on the island of **Great Nicobar in the Nicobar Islands**, which lie in the eastern Indian Ocean (Bay of Bengal).
- The vegetation consists largely of tropical and subtropical moist broadleaf forests.
- From February to December, the largest turtle in the world, **the Leatherback turtle (Dermochelys coriacea)**, nests here.

29. (b)

Statement 1 is not correct: Kaziranga National Park is located on the banks of the Brahmaputra River, not the Ganges.

Statement 2 is correct: Kaziranga is indeed home to the endangered Western Hoolock Gibbon.

Statement 3 is correct: The park was declared a UNESCO World Heritage site in 1985.

Statement 4 is not correct: The Diphlu River, not the Manas River, runs through Kaziranga National Park.

30. (d)

In News: Recently, researchers have discovered a **new genus, named Indiconema**, of the **Gomphonemoid Diatom group** found in the clean water river of the **Eastern and Western Ghats**.

About Indiconema

- **Valve Symmetry:** Indiconema differs from other Gomphonemoid diatoms by having a pore field at both the head and foot poles, rather than just at the foot pole.
- **Restricted Distribution:** The name “Indiconema” reflects its limited distribution within India.
- **Biogeography:** One species of Indiconema was found in the Eastern Ghats, and another in the Western Ghats.
 - This pattern of sharing endemic elements between two mountain systems is similar to what has been observed for other endemic-rich groups.

31. (c)

Statement 1 is correct

- **Diatoms** are **microscopic algae** that play a crucial role in our everyday lives.
- They produce **approximately 25% of global oxygen**, which means every fourth breath you take owes its existence to these tiny organisms.

Statement 2 is correct

- They form the **base of the aquatic food chain** and serve as **excellent indicators of aquatic health** due to their sensitivity to water chemistry changes.

- The **evolution of monsoons** structured the **rainforest biome** across the Indian Peninsula and the associated **varying wetness**, which has a **direct role in shaping the diatom flora**.

32. (c)

Statement 1 is not correct : Iberian lynx is a medium-sized nocturnal cat with a short tail, a short body, long legs, tufted ears, and a relatively small head.

- **It is the world's most endangered cat**

Statements 2 and 3 are correct : The Iberian lynx, one of the rarest cat species globally, has moved from being 'endangered' to '**vulnerable**' on The International Union for Conservation of Nature (IUCN) Red List.

- This change reflects a significant increase in its population.
- In the early 19th century the Iberian lynx was found in Spain, Portugal and Southern France
 - Currently, there are over 2,000 lynxes, including young ones, **across Spain and Portugal**.

33. (a)

In News: Kerala faces a growing wild boar menace, with the animals destroying crops, attacking farmers, and causing road accidents.

About Wild Boars

- **Scientific Name** : *S. scrofa*
- It has by far the largest range of all pigs.
- It is sometimes called the **European wild boar**.
- The animals are swift, **nocturnal, and omnivorous** and are good swimmers.
- **Habitat and Distribution** : It occupies a wide variety of temperate and tropical habitats, from semi-desert to tropical rainforests, temperate woodlands, grasslands and reed jungles; often venturing onto agricultural land to forage. It is found in a variety of habitats.
 - It is the **largest of the wild pigs** and is native to forests ranging from western and northern Europe and North Africa to India, the Andaman Islands, and China.
- **IUCN Status: Least Concern.**

34. (d)

News: Recently, South India's first and the country's largest leopard safari was inaugurated at the Bannerghatta Biological Park (BBP), Karnataka.

About

- Bannerghatta is home to a good population of free ranging leopards (*Panthera pardus*).

Do you know?

- Leopards have held cultural significance in ancient civilizations, symbolizing power, agility, and nobility.
- The Indian leopard (*Panthera pardus fusca*) is distributed across a variety of forested habitats in India, Nepal, Bhutan, and parts of Pakistan, excluding mangrove forests and desert habitats.
- It is listed in **Schedule I** of the Wildlife (Protection) Act, 1972 and classified as "**Vulnerable**" by the IUCN Red List.

35. (c)

Rhinos in India

- **Only the Greater One-Horned Rhino is found in India** which is also known as the Indian rhino and is the largest of the rhino species.

- **Habitat:** The **Kaziranga National Park** and **Manas National Park** in Assam, **Pobitora reserve forest** in Assam (**having the highest one horned rhino density in the world**), **Orang National park** of Assam etc.

IUCN status of the five species

- Javan Rhinos (*Rhinoceros sondaicus*): Critically Endangered
- Sumatran rhinos (*Dicerorhinus sumatrensis*): Critically Endangered
- Black rhinos (*Diceros bicornis*): Critically Endangered
- White rhinos (*Ceratotherium simum*): Near Threatened
- **Greater One-Horned Rhinos (*Rhinoceros unicornis*): Vulnerable**

36. (c)

Asian king vulture (*Sarcogyps calvus*) is also called red-headed vulture.

- It is common in open country usually away from human habitation, well-wooded hills, and dry deciduous forest with rivers
- **IUCN Red List status : Critically Endangered**

Mainland serow: It is a mammal that appears somewhere between a goat and an antelope

- **IUCN status : Vulnerable**

Greater Adjutant Stork : It is the second-rarest stork species in the world.

They are large and distinctive storks that use tropical wetlands to feed on small aquatic and terrestrial wildlife. **IUCN Red List status : It is listed as Near Threatened**

37. (b)

News: The Pench Tiger Reserve has launched the first advanced Artificial Intelligence (AI) system for early detection of forest fires.

About

- With the successful deployment of this system, the forest department anticipates a substantial improvement in its forest fire management practices.

Pench Tiger reserve (PTR)

- It derives its name from the River Pench.
- Pench tiger reserve is an excellent abode to almost all the major floral and faunal species including tiger, leopard, sloth bear, Indian gaur, wild dog, wolf etc found in central India.

MISCELLANEOUS

1. Consider the following statements with reference to Nelson Mandela Award for Health Promotion for 2024

1. It is awarded only to individuals and governmental organizations.
2. It was established by the World Health Organization (WHO) in 2019.

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 Institutes in India received the 'UN's WSIS 2024 'Champion' Award'?

- (a) Centre for Development of Telematics (C-DOT)
- (b) Indian Space Research Organisation (ISRO)
- (c) India Meteorological Department (IMD)
- (d) Centre for Development of Advanced Computing (C-DAC)

3. With reference to the 'Living Will', consider the following statements:

1. It is a written document that specifies the actions to be taken if the person is unable to make their own medical decisions in the future.
2. Passive euthanasia is legalised to recognise the living wills of terminally-ill patients who could go into a permanent vegetative state.

Which of the statements given above is/are correct?

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

4. With reference to QS World University Ranking 2025, which of the following statements is/are correct?

1. In the ranking, seven out of the top 10 ranks in India have been achieved by IITs.
2. The second spot has been claimed by the Massachusetts Institute of Technology.

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. The Greening Education Partnership is an initiative led by:

- (a) The World Bank
- (b) UNESCO
- (c) UNICEF and UNEP
- (d) The Green Climate Fund

6. With reference to the World Oceans Day, consider the following statements:
1. The concept of World Oceans Day was first proposed in 1992 at the Earth Summit in Rio de Janeiro, Brazil.
 2. The theme for the World Oceans Day 2024 is "Planet Ocean: The Tides are Changing".
- 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. With reference to 'Water Credit', consider the following statements:
1. It puts microfinance tools to work in the water and sanitation sector.
 2. It is a global initiative launched under the aegis of the World Health Organization and the World Bank.
 3. It aims to enable the poor people to meet their water needs without depending on subsidies.
- 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
8. Which of the following is NOT a key dimension measured by the Global Gender Gap Index?
- (a) Economic Participation and Opportunity
 - (b) Educational Attainment
 - (c) Health and Survival
 - (d) Environmental Sustainability
9. The 'Longitude Prize', sometimes appeared in the news, is in the context of:
- (a) Malaria
 - (b) Antimicrobial Resistance
 - (c) Tuberculosis
 - (d) Covid-19
10. To which body does the Financial Intelligence Unit – India (FIU-IND) directly report?
- (a) Reserve Bank of India (RBI)
 - (b) Enforcement Directorate (ED)
 - (c) Central Bureau of Investigation (CBI)
 - (d) Economic Intelligence Council (EIC)
11. Which of the following statements about the Kavli Prize is/are correct?
1. It is awarded biennially in the fields of Astrophysics, Nanoscience, and Neuroscience.
 2. It was established by the Norwegian Academy of Science and Letters in collaboration with the Kavli Foundation and the Norwegian Ministry of Education and Research.
 3. The Prize includes a monetary award, a gold medal, and a diploma.

Select the correct answer using the code given below:

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

12. Which of the following countries has recently removed the 'burp tax' on livestock?

- (a) Brazil
- (b) India
- (c) United States
- (d) New Zealand

13. Which of the following is NOT a direct application of bitumen?

- (a) Biofuel production
- (b) Waterproofing
- (c) Road paving
- (d) Adhesive in construction materials

14. The global goal for NTDs by 2030, as set in the 'Ending the Neglect' roadmap, is to:

- (a) Eradicate all NTDs
- (b) Reduce NTDs by 50%
- (c) Reduce NTDs by 90%
- (d) Contain the spread of NTDs

15. Consider the following statements about the India Post:

1. The India Post Office Act of 1854 was introduced under Lord Dalhousie's reforms.
2. The India Post Office Act of 1854 established the office of Director General of Post for the entire country.
3. India Post has the most widely distributed postal network in the world.

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

16. With reference to the Kafala system, which of the following statements is/are correct?

1. The system defines the relationship between foreign workers and their local sponsor, which is usually their employer.
2. Under the system, workers do not need their sponsor's permission to end employment, and enter or exit the host country.

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

17. To ensure the transparent, smooth and fair conduct of examinations. The Ministry of Education has recently announced the constitution of a high-level committee of experts, headed by which of the following persons?
- Ashok Gulati
 - Dr. K Radhakrishnan
 - Ram Nath Kovind
 - Dr. K. Sivan
18. Recently, which of the following countries has announced to introduce the world's first carbon tax on agriculture?
- New Zealand
 - Italy
 - Denmark
 - Australia
19. With reference to the National Statistics Day, which of the following statements is/are correct?
- The day is observed to remember the contributions of Prof P C Mahalanobis.
 - The theme for National Statistics Day 2024 is 'Use of Data for Decision Making'.
- Select the correct answer using the code given below:
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2

EXPLANATIONS (Miscellaneous)

1. (b)
- The National Institute of Mental Health and Neuro Sciences (NIMHANS) has been awarded the Nelson Mandela Award for Health Promotion for 2024
- Statement 1 is not correct:** The Nelson Mandela Award for Health Promotion recognizes **individuals, institutions and/or governmental or non-governmental** organisations that have demonstrated remarkable contributions to health promotion.
- Statement 2 is correct:** The Nelson Mandela Award for Health Promotion, established by **World Health Organization (WHO) in 2019.**
2. (a)
- In News:** Recently, the **Centre for Development of Telematics (C-DOT)** won the UN's WSIS 2024 'Champion' Award for **Mobile-Enabled Disaster Resilience** through Cell Broadcast Emergency Alerting.
- The **World Summit on the Information Society (WSIS)+20 Forum 2024**, conducted by the **International Telecommunication Union (ITU)** in Geneva, Switzerland, acknowledged **C-DOT's project.**
 - It underscores C-DOT's commitment to leveraging technology for societal impact.
 - C-DOT** showcased cutting-edge telecom solutions, including an ITU-CAP-based early warning alert system and AI-powered fraud detection.

3. (c)

Both the statements are correct: A living will is a written document that specifies the **actions to be taken if the person is** unable to make their own medical decisions in the future.

- Passive euthanasia is legalised to recognise the **living wills of terminally-ill patients** who could go into a permanent vegetative state and issued guidelines regulating the procedure.

4. (a)

Context

- Recently QS World University Ranking 2025, was released ranking Higher education institutions across the world.

Ranking of Indian Universities

- In the **QS World University Ranking 2025**, seven out of the top 10 ranks in India have been achieved by IITs (**IIT Bombay, Delhi, Kharagpur, Madras, Kanpur, Kharagpur, and Guwahati**).
- **The Indian Institute of Technology Bombay (IIT-B)** has climbed from 149 in 2024 to **118 in the 2025** rankings.
- **The University of Delhi (DU)**, rose 79 ranks from 407th in 2024 to **328th in 2025**, securing the **seventh spot** among Indian universities.

Ranking of Top Global Institutions

- **Massachusetts Institute of Technology** remains the best institute globally for the 13th year in a row.
- The second spot has been claimed by the **UK's Imperial College London**, which improved from sixth place last year.
- **Harvard University** and the **University of Oxford** are jointly ranked third.

5. (c)

The Greening Education Partnership is a multi-stakeholder initiative led by UNICEF and UNEP. It aims to transform education systems worldwide by making them more environmentally sustainable and climate-resilient. The Partnership focuses on three key areas: greening schools, greening learning, and greening communities. It provides a platform for collaboration and knowledge sharing among governments, international organizations, civil society, and the private sector to promote environmental education and action.

6. (a)

Context: The World Oceans Day 2024 was observed on 8th June.

About

- The oceans of the world generate **at least half of the planet's oxygen**, support the majority of the planet's biodiversity, and provide the majority of the world's protein needs for more than a billion people.

World Oceans Day

- Celebrated on June 8, World Oceans Day is a way to highlight what ails our oceans and what can be done to protect them.
- The concept of World Oceans Day was **first proposed in 1992** at the Earth Summit in Rio de Janeiro, Brazil.
- **"Awaken New Depths"** is the theme for World Oceans Day 2024.

7. (c)

Statement 1 is correct: WaterCredit is an initiative that applies the principles of microfinance (small loans) to the water and sanitation sector. It provides small loans to individuals and communities to help them finance water and sanitation solutions.

Statement 2 is not correct: WaterCredit is not a global initiative launched under the aegis of the World Health Organization (WHO) and the World Bank. It is a program of Water.org, a non-profit organization focused on providing safe water and sanitation to the world.

Statement 3 is correct: The aim of WaterCredit is to empower poor people to meet their water and sanitation needs through affordable loans, rather than relying solely on subsidies. This helps to create a more sustainable model for providing these essential services.

8. (d)

In News: Recently, the World Economic Forum (WEF) published the **18th edition** of the Global Gender Gap Report (2024).

About the Global Gender Gap Index (2024)

- It annually benchmarks the current state and evolution of gender parity across **four key dimensions**, i.e. Economic Participation and Opportunity; Educational Attainment; Health and Survival, and Political Empowerment.

Key Findings of the Report

- **Global Results:** The global gender gap score in 2024 for all 146 countries included in this edition stands at 68.5% closed.
 - It means that on average, across the world, there is still a 31.5% gender gap that needs to be closed.
 - Compared against the constant sample of 143 countries included in last year's edition, the global gender gap has been closed by a further +0.1 percentage point, from 68.5% to 68.6%.
- **Time to Parity:** Based on current data, it will **take 134 years to reach full parity**, which is **roughly five generations beyond the 2030 Sustainable Development Goal (SDG) target**.
 - The lack of meaningful, widespread change since the last edition effectively slows down the rate of progress to attain parity.
- **Top Performers:** While **no country has achieved full gender parity**, 97% of the economies included in this edition have closed more than 60% of their gap.
 - It is a significant improvement compared to 85% in 2006.
 - **Iceland (1st, 93.5%)**, alongwith the Finland (2nd, 87.5%), Norway (3rd, 87.5%), Sweden (5th , 81.6%), Germany (7th, 81%), Ireland (9th, 80.2%) and Spain (10th, 79.7%) has been **leading the index** for a decade and a half.
 - **Finland** continues to be the **only economy** to have closed over 90% of its gender gap.
- **Globally, Sudan was ranked last** on the index of 146 countries, while Pakistan slipped three places to 145th.

9. (b)

In News: Recently, **PA-100 AST System** (a high-tech, transformative, rapid, point-of-care test for **Urinary Tract Infections**) has won the **Longitude Prize on Antimicrobial Resistance (AMR)**.

- **PA-100 Antimicrobial Susceptibility Testing (AST) System** is an **automated analyser** that combines phase contrast **microscopy and nanofluidics** to make available antibiograms, for the **first time, at the point of care**.
- It relies on **nanofluidics to perform rapid AST**, and uses the most advanced phenotypic diagnostic performance possible.
- Cell growth is monitored in real time using **contrast phase microscopy**.
 - Resistant bacteria keep a higher growth rate during incubation, while susceptible ones grow slowly or lyse.
- It provides **targeted antibiotic treatment in less than one hour**, reducing the risk of AMR.

10. (d)

About FIU-IND

- Established in 2004 under the Department of Revenue, Ministry of Finance.
- An independent body reporting directly to the **Economic Intelligence Council (EIC)** headed by the **Finance Minister**.
- Responsible for receiving, processing, analyzing, and disseminating information related to suspect financial transactions.
- Plays a pivotal role in India's anti-money laundering (AML) and combating the financing of terrorism (CFT) efforts.
- Works closely with various domestic and international agencies to combat financial crimes.

11. (d)

Statement 1 is correct: The Kavli Prize is indeed awarded biennially (every two years) in the fields of Astrophysics, Nanoscience, and Neuroscience.

Statement 2 is correct: The Kavli Prize was established by the Norwegian Academy of Science and Letters in collaboration with the Kavli Foundation and the Norwegian Ministry of Education and Research.

Statement 3 is correct: The Kavli Prize includes a monetary award, a gold medal, and a diploma, awarded to the laureates.

12. (d)

News: New Zealand has announced the scrapping of 'burp tax' — a scheme to tax greenhouse gas emissions from livestock.

About

- The burp tax was proposed in October 2022.
- In New Zealand, there are around 10 million cattle and 25 million sheep, which are the source of nearly half of the country's greenhouse gas emissions.

What are greenhouse gases?

- Greenhouse gases (GHGs) are those gases in the Earth's atmosphere that trap heat.
- They allow sunlight to pass through the atmosphere but prevent the heat that sunlight brings from returning into space.
- The most notable GHGs are water vapour, carbon dioxide, methane, ozone, and nitrous oxide.

13. (a)

Bitumen is commonly used in road paving, waterproofing, and as an adhesive in construction materials due to its binding properties. However, it is not used for **biofuel production**. While organic materials can be converted into bio-bitumen, traditional bitumen itself is not a biofuel.

14. (c)

The 'Ending the Neglect to Attain Sustainable Development Goals: A Roadmap for Neglected Tropical Diseases 2021-2030' sets ambitious targets for reducing the burden of NTDs. One of the key goals is to achieve a 90% reduction in the number of people requiring treatment for NTDs by 2030, thereby significantly lowering the incidence and impact of these diseases on affected populations.

15. (d)

Statement 1 is correct: The India Post Office Act of 1854 was indeed introduced as part of Lord Dalhousie's reforms, which significantly modernized and organized the postal system in India.

Statement 2 is correct: This Act also established the office of the Director General of Post, centralizing postal services under one authority for better administration.

Statement 3 is correct: India Post operates the largest postal network in the world, with an extensive reach even in remote areas.

16. (a)

What is the Kafala system?

- The kafala, or sponsorship, system defines the **relationship between foreign workers and their local sponsor, or kafeel**, which is usually their employer.
- It has been used in **Gulf Cooperation Council (GCC)** countries—Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates—as well as Jordan and Lebanon.
- Sponsors use private recruitment agencies in the countries of origin to find workers and facilitate their entry to the host country.

Concerns with the system

- In most situations, **workers need their sponsor's permission** to transfer jobs, end employment, and enter or exit the host country.
- Workers have little recourse in the face of exploitation, and many experts argue that the system **facilitates modern slavery**.

17. (b)

News: The Ministry of Education has announced the constitution of a high-level committee of experts, headed by former ISRO chairman **Dr. K Radhakrishnan**, to ensure transparent, smooth and fair conduct of examinations.

About

- The seven-member committee will make recommendations on reform in the mechanism of the examination process, improvement in data security protocols and structure and functioning of the National Testing Agency (NTA).
- The committee will submit its report to the Education ministry within two months.

18. (c)

News: Denmark has announced the introduction of a carbon tax on agriculture, making it the first country to do so. This tax is likely to come into effect from 2030.

What is Carbon Tax?

- It is a tax levied on the carbon emissions from producing goods and services.
- Carbon taxes are intended to make visible the hidden social costs of carbon emissions.
- They are designed to reduce greenhouse gas emissions.
- Carbon taxes are a type of Pigovian tax.

19. (c)

Both the statements are correct.

- National Statistics Day is celebrated every year on June 29 on the birth anniversary of **Professor Prasanta Chandra Mahalanobis**.
- The objective of this Day is to create public awareness, specially in the younger generation for drawing inspiration from Professor (late) Mahalanobis about the role and importance of statistics in socio-economic planning and policy formulation.
- For 2024, the theme is "**Use of Data for Decision Making**," focusing on the impact of statistics in driving sustainable development and innovation across various sectors.
- Mahalanobis, who was a member of India's first Planning Commission, set up the Indian Statistical Institute in 1931.

