

DAILY MCQs COMPILATION
with
EXPLANATIONS

NOVEMBER 2024

NEXT IAS

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HISTORY, ART & CULTURE

1. A lawyer by profession, Sardar Patel jumped into the freedom struggle of India under the leadership of Mahatma Gandhi. He earned the title of “Sardar” for the key role played by him in which of the following?

(a) Kheda Satyagraha (b) Non-Cooperation Movement
(c) Bardoli Satyagraha (d) Civil Disobedience Movement
2. *Balfour Declaration* is related to which of the following events?

(a) Dissolution of the Soviet Union (b) World War I
(c) World War II (d) French Revolution
3. Ningol Chakkouba, recently seen in the news, is one of the biggest festivals of which among the following states?

(a) Assam (b) Meghalaya
(c) Manipur (d) Nagaland
4. He was inspired to rise against the British during the Deccan famine of the late 1870s. He taught guerrilla warfare techniques to people and is also known as the ‘Father of the Indian Armed Rebellion’.

Which of the following personalities has been described above?

(a) Alluri Sitarama Raju (b) Veerapandiya Kattabomman
(c) Komaram Bheem (d) Vasudev Balwant Phadke
5. He founded the newspaper ‘Bombay Chronicle’ (1913) and organisation Bombay Presidency Association (1885) where he served as its Secretary. He is also known as ‘The Lion of Bombay’.

Which of the following personalities has been described above?

(a) Bal Gangadhar Tilak (b) Gopal Krishna Gokhale
(c) Pherozeshah Mehta (d) Dadabhai Naoroji
6. Along with another revolutionary leader, Aravinda Ghosh, he founded the famous journal ‘Bande Mataram’. He also served as the editor-in-chief of the journal ‘Forward’, which was the mouthpiece of the Swaraj party.

Which of the following personalities has been described above?

(a) Chitranjan Das (b) Rash Behari Bose
(c) Bhagat Singh (d) Bankim Chandra Chatterjee
7. Thadou Community, recently seen in news, primarily associated with which among the following Indian states?

(a) Kerala (b) Gujarat
(c) Rajasthan (d) Manipur

8. The wealth of the nation, according to him, was not in the country's banks but in primary schools. He was also a great votary of the concept of Neighbourhood schools and the Common School System. 'India Wins Freedom', is his political biography.

Which of the following personalities has been described above?

- (a) Dr. Sarvepalli Radhakrishnan (b) Dr. APJ Abdul Kalam
(c) Jawaharlal Nehru (d) Maulana Abul Kalam Azad

9. He founded Al-Hilal, a weekly Urdu journal, in 1912, he became the youngest President of the Indian National Congress.

Which among the following personalities is described above?

- (a) Ram Prasad Bismil (b) Maulana Abul Kalam Azad
(c) Ashfaqulla Khan (d) Chittaranjan Das

10. Igas Bagwal, a traditional festival of lights belonging to which of the following Indian states?

- (a) Uttarakhand (b) West Bengal
(c) Meghalaya (d) Goa

11. He was a freedom fighter credited with popularizing the slogan "Satyameva Jayate" (Truth Alone Triumphs). He also served as the lawyer defending the accused in the 1922 Chauri Chaura case, when an anti-British protest in the north Indian town of Chauri Chaura turned violent.

Which of the following personalities has been described above?

- (a) Dr. B.R. Ambedkar (b) Mahatma Gandhi
(c) Jawaharlal Nehru (d) Madan Mohan Malaviya

12. Popularly known as Rashtraguru, he founded the pioneer nationalist organisation in British India 'Indian National Association' in 1876. He founded 'The Bengalee' newspaper and also presided over the Indian National Congress (INC) twice.

Which of the following personalities has been described above?

- (a) Aurobindo Ghosh (b) Deshbandhu Chittaranjan Das
(c) Dadabhai Naoroji (d) Surendranath Banerjee

13. Which of the following movements is associated with Birsa Munda?

- (a) Tebhaga Movement (b) Ulgulan Movement
(c) Santhal Rebellion (d) Bardoli Satyagraha

14. Consider the following Bhakti Saints:

1. Dadu Dayal 2. Guru Nanak
3. Tyagaraja

Who among the above was/were preaching when the Lodi dynasty fell and Babur took over?

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

15. The concept of 'Seva' in Guru Nanak's teachings refers to;

- (a) Ritualistic worship in temples
(b) Earning wealth for personal gain
(c) Selfless service to humanity
(d) Studying sacred texts

- 16.** What does the festival of Bali Jatra primarily commemorate?
- The victory of King Ashoka at Kalinga.
 - The ancient maritime trade of Odisha with Southeast Asia.
 - The annual Rath Yatra of Lord Jagannath.
 - The coronation of Emperor Kharavela.
- 17.** With reference to the Lala Lajpat Rai, which of the following statements is/are correct?
- In 1885, he established the Dayanand Anglo-Vedic School in Lahore.
 - He founded the Servants of India Society in 1905.
- Select the correct answer using the code given below:
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
- 18.** Executed at just 19, he was among those who sought to overthrow British colonial rule through the Ghadar Movement, a revolutionary effort led by Indian expatriates in North America. He was a source of inspiration for other freedom fighters including Bhagat Singh.
- Which of the following personalities has been described above?
- Lala Lajpat Rai
 - Jatindranath Mukherjee
 - Kartar Singh Sarabha
 - Khudiram Bose
- 19.** With reference to the Rani Lakshmi Bai, which of the following statements is/are correct?
- She was born in Varanasi and originally named Manikarnika Tambe.
 - She became queen of Jhansi after her marriage to Maharaja Gangadhar Rao Newalkar.
- Select the correct answer using the code given below:
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
- 20.** He is regarded as the National Teacher of India. In 1940, he was selected as the 'First Individual Satyagrahi' against the Britishers by Mahatma Gandhi. He was awarded the Bharat Ratna posthumously.
- Which of the following personalities has been described above?
- Sarvepalli Radhakrishnan
 - Jawaharlal Nehru
 - Govind Ballabh Pant
 - Acharya Vinoba Bhave
- 21.** Which of the following books were authored by Dr. Harekrushna Mahtab, whose 125th birth anniversary was recently celebrated?
- History of Orissa
 - The Arctic Home in the Vedas
 - Gaon Majlis
 - The Discovery of India
- Select the correct answer from the options given below:
- 1 and 3 only
 - 2 and 4 only
 - 1, 2, and 3 only
 - 1, 3, and 4 only
- 22.** Which of the following policies of the British led to the annexation of Jhansi into the British Empire?
- Subsidiary Alliance
 - Doctrine of Lapse
 - Permanent Settlement
 - Policy of Paramountcy

- 23.** With reference to the Rejang Dewa, which of the following statements is/are correct?
1. It is a sacred Balinese dance, forms a part of the Ngusaba Goreng festival.
 2. It primarily involves traditional dances performed by young girls and women.
- 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.** With reference to the Lachit Borphukan, consider the following statements:
1. He is known for his exemplary leadership in the Battle of Saragarhi (1897).
 2. Since 1999 the Lachit Barphukan Gold Medal has been given to the best cadet at the National Defence Academy.
- 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.** Which among the following decorated himself with high-sounding titles of Jayangonda, Pandya-kulasani, Singalantaka, Colamartanda, and Telingakulakala?
- (a) Rajaraja I (b) Rajendra I
(c) Rajaraja II (d) Vijayalaya
- 26.** Which of the following statements about the Ahom Kingdom is correct?
- (a) The Ahom Kingdom was established in the 15th century.
(b) The Ahoms ruled Assam until it was annexed by the Mughals.
(c) The Treaty of Yandaboo in 1826 marked the end of Ahom rule.
(d) The Ahoms originated from southern India.
- 27.** Which of the following statements about the Reang tribe is correct?
- (a) They are the largest tribal community in Tripura.
(b) Their traditional dance, Hojagiri, is performed exclusively by men.
(c) They practice Jhum Cultivation and food gathering.
(d) They predominantly follow Buddhism.
- 28.** 'Hojagiri folk dance' is performed in which of the following Indian States?
- (a) Assam (b) Kerala
(c) Tripura (d) Mizoram
- 29.** Which among the following Sikh Guru is revered as Hind ki Chadar (Shield of India) for sacrificing his life to protect religious freedoms?
- (a) Guru Hargobind Sahib (b) Guru Arjan Dev
(c) Guru Tegh Bahadur (d) Guru Ram Das
- 30.** Gulamgiri (Slavery) and Shetkarayacha Aasud (Cultivator's Whipcord) are the literary works of which among the following personalities?
- (a) Dr. B.R. Ambedkar (b) Ishwar Chandra Vidyasagar
(c) Raja Ram Mohan Roy (d) Jyotiba Phule
- 31.** Siddi Community found in India, originally belonged to which of the following regions?
- (a) Africa (b) Europe
(c) Asia (d) Australia

32. The 'Koraga Tribal Community', sometimes appeared in the news, primarily found in:
- (a) Chhattisgarh and Odisha (b) Karnataka and Tamil Nadu
(c) Andhra Pradesh and Telangana (d) Karnataka and Kerala
33. He along with his wife established India's first school for girls. He was bestowed with the title of Mahatma by a Maharashtrian social activist Vithalrao Krishnaji Vandekar. He was influenced by Thomas Paine's book titled The Rights of Man.
- Which of the following personalities has been described above?
- (a) Mahatma Gandhi (b) Dr. Bhimrao Ambedkar
(c) Jyotiba Phule (d) Ishwar Chandra Vidyasagar
34. Which among the following Sikh Guru established Anandpur Sahib?
- (a) Guru Nanak Dev (b) Guru Hargobind Sahib
(c) Guru Gobind Singh (d) Guru Tegh Bahadur
35. Which among the following women were a part of the Constituent Assembly of India?
1. Sarojini Naidu
 2. Ammu Swaminathan
 3. Rajkumari Amrit Kaur
- 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
36. The Ramappa Temple is famous for its unique construction technique known as:
- (a) Keystone technique (b) Corbel arch technique
(c) Sandbox technique (d) Post-and-lintel technique

EXPLANATIONS

1. (c)

Context: Prime Minister Narendra Modi offered a floral tribute to Sardar Vallabhbhai Patel on his 149th birth anniversary and participated in the Rashtriya Ekta Diwas celebrations at the Statue of Unity in Kevadia, Gujarat.

About: Sardar Vallabhbhai Patel

- A lawyer by profession, Sardar Patel jumped into the freedom struggle of India under the leadership of Mahatma Gandhi.
- The key role played by him in the **Bardoli Satyagraha** in 1928 elevated him to greater heights and earned him the epithet of '**Sardar**' – a title which goes with his name even today. During the Bardoli Satyagraha, Patel supported the local population suffering from famine and increased land taxes.

2. (b)

The Balfour Declaration was made **107 years ago** on November 2, **1917**.

- It was a letter that Balfour, then British foreign secretary, wrote to Lionel Walter Rothschild, 2nd Baron Rothschild of Tring, a prominent member of the Anglo-Jewish community.
- It expressed support for the **establishment of a national home for the Jewish people in Palestine**.

- The declaration is seen as a significant moment in the lead-up to the **1948 creation of Israel**.
- **Strategic Interest of the Allies:** It reflected **British strategic interests during World War I**, including garnering support from Jews in the United States and Russia.

3. (c)

Context: One of the biggest festivals of Manipur-Ningol Chakkouba was held across the State with religious fervour and gaiety.

About:

- The festival is traditionally held on the second lunar day of the **Manipuri calendar's** Hiyangei month and its history dates back to the time when **King Nongda Lairen Pakhangba** ruled in Manipur.
- **Ningol** means 'married woman' and **Chakouba** means 'invitation for feast'; so the festival is the one where the married women are invited to their parents' home for a feast.
- The invitation comes from the son(s) of the parental family of the ningols, generally a week in advance; it **strengthens the bond** of affections among the brothers and sisters, daughters and parents of a family.

4. (d)

Context: Recently, the birth anniversary of freedom fighter Vasudev Balwant Phadke was observed.

About: Vasudev Balwant Phadke

- Vasudev Balwant Phadke, one of the first revolutionaries of India, also known as the '**Father of the Indian Armed Rebellion**', was born on 04 November 1845 in Shirdhon (present-day Maharashtra).
- He was inspired to rise against the British during the **Deccan famine** of the late 1870s. He taught **guerrilla warfare** techniques to people.
- Phadke passed away in prison in **1883**. In the short span of his life Phadke paved the way for an organised armed movement that would fight for the freedom of India.

5. (c)

Context: Recently, freedom fighter Pherozeshah Mehta's death anniversary was observed.

Pherozeshah Mehta (4th August, 1845 - 5th November, 1915)

- He founded the newspaper '**Bombay Chronicle**' (1913) and organisation **Bombay Presidency Association** (1885) where he served as its Secretary.
- He devoted his energies in the **spread of education**, both primary and higher, and laid great stress on promotion of English language as a means by which India could modernise itself rapidly.
- He was the **sixth President** of the Indian National Congress founded in 1885 at Bombay (now Mumbai), his birth place as well as his karma Bhoomi. He is also known as '**The Lion of Bombay**'.

6. (a)

Context: Recently, freedom fighter Chitranjan Das's birth anniversary was observed.

Chitranjan Das (5th November, 1870 - 16th June, 1925)

- Popularly known as 'Deshbandhu', Das was a close associate of Mahatma Gandhi.
- Along with Motilal Nehru, Deshbandhu founded the **Swaraj Party** in 1923. The party was recognized as the parliamentary wing of the Congress.
- Along with another revolutionary leader, Aravinda Ghosh, he founded the famous journal '**Bande Mataram**'.

- He also served as the editor-in-chief of the journal '**Forward**', which was the mouthpiece of the Swaraj party.

7. (d)

Context: Thadou Community has extended support to the BJP-led state government in its move to implement the National Register of Citizens (NRC).

About:

- **The Thadous** are one of the oldest and largest non-Naga **tribes of Manipur**.
 - It has been the single-largest tribe in Manipur consistently since the first census of India in **1881** till the latest census in **2011**.
- **Language:** The Thadou language is part of the Tibeto-Burman family and has several dialectal variations.

8. (d)

Context: National Education Day is celebrated on November 11 every year in honor of Maulana Abul Kalam Azad, the first Education Minister of independent India and a prominent educationist.

About: Maulana Abul Kalam Azad

- He was born with the name of **Abul Kalam Ghulam Muhiyuddin** on November 11th 1888 in Mecca, Saudi Arabia.
- An active participant in politics from his youth, he became the president of the Indian National Congress on **two occasions** - in 1923 and in 1940.
- **The wealth of the nation**, according to Maulana Azad, was not in the country's banks but in primary schools. He was also a great votary of the **concept of Neighbourhood schools** and the **Common School System**.
- Maulana Azad was a prolific writer with books in Urdu, Persian and Arabic notably amongst which is '**India Wins Freedom**', his political biography, translated from Urdu to English.
- Azad died on February 22, 1958. He was posthumously awarded the **Bharat Ratna** in the year 1992 in recognition of his efforts as a freedom fighter, journalist, scholar, and poet.

9. (b)

Maulana Azad was a **journalist, freedom fighter, and senior Congress leader**.

- He founded **Al-Hilal, a weekly Urdu journal**, in **1912** to increase revolutionary recruits among Muslims.
- He was chosen **President of the Congress's Special Session in Delhi (1923)**.
 - At the age of 35, **he became the youngest President** of the Indian National Congress.
- **Legacy:** He was also the first Minister of Education in independent India and is credited with shaping the **country's modern educational system**.
 - During his tenure, the first IIT, IISc, School of Planning and Architecture, and University Grants Commission were established.
 - The Sangeet Natak Academy, Lalit Kala Academy, Sahitya Academy, and Indian Council for Cultural Relations were among the most well-known cultural and literary institutes established during his tenure.

10. (a)

Context: Prime Minister Narendra Modi participated in Igas Bagwal, a traditional festival of lights belonging to the state of Uttarakhand.

About: Igas Bagwal festival

- The festival is widely celebrated in **Uttarakhand**, after 11 days of Diwali. It is also called **Budhi Diwali**.
- It is believed that when Lord Ram returned to Ayodhya -- which marks Diwali celebrations in the entire nation -- the news of his return reached the hills 11 days late because of the remote terrain and lack of connectivity, which accounts for the gap in the celebrations.

11. (d)

Context: Recently, freedom fighter Madan Mohan Malaviya's death anniversary was observed.

Madan Mohan Malaviya (25th December, 1861 - 12th November, 1946):

- Malviya, also known as Mahamana, was an Indian scholar, educational reformer, nationalist leader, and founder of the Banaras Hindu University in Varanasi.
- He launched the Hindi-language weekly, the *Abhyudaya* (1907), *The Leader* in English, and the Hindi monthly *Maryada*.
- He is credited with popularizing the slogan **Satyameva Jayate** (the truth alone shall triumph) and the lawyer who defended the accused in the **Chauri Chaura case** of 1922. He was conferred with **Bharat Ratna** in 2014.

12. (d)

Context: Recently, freedom fighter Surendranath Banerjee's birth anniversary was observed.

Surendranath Banerjee (10th November, 1848 - 6th August, 1925):

- Popularly known as **Rashtraguru**, he founded the pioneer nationalist organisation in British India '**Indian National Association**' in 1876.
- Founder of '**The Bengalee**' newspaper, he emphasised on the importance of education, self-governance, and the preservation of the nationalist spirit.
- Banerjee **twice presided** over the Indian National Congress (INC) - Pune (1895) and Ahmedabad (1902).
- He became a member of the Imperial Legislative Assembly in 1921 and was knighted the same year.

13. (b)

Munda Rebellion:

- **A tribal movement** led by **Munda** against the British Raj.
- Also referred to as '**Ulgulan**' or the '**Great Tumult**,' to establish **Munda raj**.
- Munda used traditional symbols to rouse people **against dikus (outsiders)**.
- Movement fired & people started to attack outsiders (**police stations & churches**).
- **Outcomes of the Rebellion:**
- The British government introduced **the Chotanagpur Tenancy Act in 1908**, to prohibit the transfer of tribal land to non-tribals(Dikus).
- **Lenient attitude of Britishers** towards tribals & maintaining their faith & beliefs.

14. (b)

The Lodi dynasty fell in 1526 when Babur defeated Ibrahim Lodi at the First Battle of Panipat and established the Mughal Empire in India.

Guru Nanak (1469–1539) was actively preaching during this period, as he founded Sikhism in the late 15th and early 16th centuries.

Dadu Dayal (1544–1603) began preaching much later, during the Mughal period.

Tyagaraja (1767–1847), a famous Carnatic music composer, lived much later, in the 18th and early 19th centuries.

15. (c)

Context: Recently, the **555th** birth anniversary of Guru Nanak was celebrated across India.

Key teachings of Guru Nanak

- **Religious Tolerance:** In an era marked by religious diversity, Guru Nanak's emphasis on the unity of all people under one divine force encourages mutual respect and harmony.
- **This teaching promotes religious tolerance and understanding**, which is especially relevant in today's globalized and diverse world.
- **Equality and Social Justice:** Guru Nanak strongly advocated for social equality, rejecting caste-based discrimination and promoting the idea that all individuals are equal.
 - This teaching remains relevant in the contemporary context where issues of social justice, discrimination, and inequality persist.
- **Service to Humanity:** The concept of "**seva**" or **selfless service** is central to Sikhism. Guru Nanak encouraged his followers to engage in **acts of kindness and service to humanity**.
 - This teaching is **relevant in addressing the challenges of poverty, inequality, and humanitarian crises** that persist in the modern world.

16. (b)

Bali Jatra (Voyage to Bali):

- It celebrates **Odisha's rich maritime history** and India's ancient connections with **Southeast Asia** and the wider Indo-Pacific.
- It honours the long-standing maritime journeys made by Indian seafarers over thousands of years, strengthening cultural and civilizational links between India and these regions.

17. (a)

Context: On **November 17**, the nation remembered Lala Lajpat Rai, popularly known as Punjab Kesari, on his **96th death anniversary**.

Social Contribution:

- He was influenced by **Arya Samaj**, a reformist Hindu movement founded by Swami Dayanand Saraswati.
 - **In 1885**, he established the Dayanand Anglo-Vedic School in Lahore.
- The **Servants of People Society** was founded by him in **1921**.

The Servants of India Society:

- It was founded by Gopal Krishna Gokhale in 1905, not by Lala Lajpat Rai.

18. (c)

Context: The martyrdom of Kartar Singh Sarabha and six other Ghadar Party revolutionaries on November 16, 1915, stands as a pivotal moment in India's fight for independence.

Kartar Singh Sarabha (24 May 1896 - 16 November 1915):

- He joined the **Ghadar party** at the age of 15 and rose through the ranks to become a leading luminary member.
 - He was in charge of the **Punjabi language edition** of Ghadar, the party's mouthpiece.

- Sarabha, executed at just 19, was among those who sought to overthrow British colonial rule through the **Ghadar Movement**, a revolutionary effort led by Indian expatriates in North America.
- He was a source of inspiration for other freedom fighters including **Bhagat Singh**.

19. (c)

Context: PM Modi has paid tributes to Rani Lakshmibai on her Jayanti.

About:

- **Early Life:** Rani Lakshmibai, born on **November 19, 1828**, in Varanasi, was named **Manikarnika Tambe** and lovingly called Manu.
 - She was trained in martial arts, horsemanship, and sword fighting, showcasing an early inclination towards bravery.
- **Marriage:** was married to **Maharaja Gangadhar Rao Newalkar of Jhansi**, after which she became known as Rani Lakshmibai.
- **Conflict with the British:** The British, under the **doctrine of Lapse**, ordered the merger of Jhansi into the British Empire and assured the queen of pension.

20. (d)

Recently, freedom fighter Acharya Vinoba Bhave's death anniversary was observed.

Acharya Vinoba Bhave (11 September 1895 - 15 November 1982):

- He believed in Ahinsa, principle of non-violence and is regarded as the **National Teacher of India**.
- Under the **Sarvodaya movement** he implemented various programs, the chief among which is the Bhoodan Movement.
 - He started the **Bhoodan Movement** so that people may donate the land for the cause of the poor and downtrodden.
- In 1940, he was selected as the 'First Individual Satyagrahi' against the Britishers by Mahatma Gandhi.
- He was conferred with the **Bharat Ratna award** posthumously in 1983.

21. (a)

Context:

- The Inauguration of the 125th Birth Anniversary Celebration of **Dr. Harekrushna Mahtab** is held in New Delhi.
- Dr. Harekrushna Mahtab, also known as "**Utkal Keshari**," was born on 21 November 1899, in Agarpara, **Odisha**.
- **He was a multifaceted leader** in Indian history, known as a freedom fighter, politician, historian, writer, social reformer, and journalist.
- He was deeply influenced by figures like Swami Vivekananda, Ramkrishna Paramhansa and Mahatma Gandhi.
- Dr. Harekrushna Mahtab wrote extensively in both **Odia and English**.
 - **History of Orissa:** A significant historical account showcasing the rich cultural and historical heritage of Odisha.
 - **Gaon Majlis:** He won the **Sahitya Akademi Award** in **1983** for this literary work.

22. (b)

Context: PM Modi has paid tributes to Rani Lakshmibai on her Jayanti.

- Rani Lakshmibai, born on November 19, 1828, in Varanasi, was named Manikarnika Tambe and lovingly called Manu.
- She was trained in martial arts, horsemanship, and sword fighting, showcasing an early inclination towards bravery.
- Marriage: She was married to Maharaja Gangadhar Rao Newalkar of Jhansi, after which she became known as Rani Lakshmibai.
- Conflict with the British: The British, under the doctrine of Lapse, ordered the merger of Jhansi into the British Empire and assured the queen of pension.

23. (c)

Context: The Rejang Dewa, a sacred Balinese dance, forms a significant part of the Ngusaba Goreng festival.

Statements 1 and 2 are correct : The Ngusaba Goreng festival, a two-week thanksgiving ritual for a bountiful harvest in **Bali**.

- The word Rejang signifies “**offering**” or “**devotion,**” while **Dewa** refers to the **divine entities** worshiped in Hinduism.
- The festival primarily involves traditional dances performed by **young girls and women**.

24. (b)

Context: The Union Minister of Ports, Shipping & Waterways, Sarbananda Sonowal paid obeisance to the great Ahom military commander Lachit Borphukan on his 402nd Birth anniversary.

About: Lachit Borphukan

- Born on 24 November 1622 in Charaideo, Assam, he excelled in the **art of Guerrilla Warfare**.
- He is known for his exemplary leadership in the **Battle of Saraighat (1671)**, where the Ahoms defeated the **Mughal forces** led by **Raja Ramsingh under Aurangzeb**.
 - The battle was fought on the **Brahmaputra river** near Saraighat and was the **last major attempt** by the Mughals to extend their empire into Assam.
- He died on 25th April 1672 at the age of 49 in Jorhat, Assam.
- He was the inspiration behind strengthening **India’s naval force** and revitalizing inland water transport and creating infrastructure associated with it due to his great naval strategies.

Award and Honour:

- Since 1999 the **Lachit Barphukan Gold Medal** has been given to the best cadet at the National Defence Academy (NDA).
- On November 24 each year, **Lachit Divas (Lachit Day)** is celebrated state-wide in Assam to commemorate the heroism of Lachit Borphukan and the victory of the Assamese army at the Battle of Saraighat.

25. (a)

Context: The birth anniversary of the legendary Chola emperor Raja Raja Chola I is celebrated with unparalleled fervour and devotion every year during the Sadhaya Vizha in Thanjavur, Tamil Nadu.

About: Raja Raja Chola I

- **Birth:** Born as Arulmozhi Varman in **947 CE**, he rose to become one of history’s most illustrious and visionary rulers.
- **Reign:** Raja Raja’s reign, from **985 to 1014 CE**, encompassed the whole of southern India, part of Ceylon and the Maldivian and Laccadive archipelagos.
- **Titles:** He decorated himself with high-sounding titles of Jayangonda, Pandya-kulasani, Singalantaka, Colamartanda, and Telingakulakala.

- **Stone records:** He started prefacing stone records (official prasasti) with a set description of the major events of his reign.

26. (c)

Context: The Union Minister of Ports, Shipping & Waterways, Sarbananda Sonowal paid obeisance to the great Ahom military commander Lachit Borphukan on his 402nd Birth anniversary.

Lachit Borphukan:

- He is known for his exemplary leadership in the **Battle of Saraighat (1671)**, where the Ahoms defeated the **Mughal forces** led by **Raja Ramsingh under Aurangzeb**.
 - The battle was fought on the **Brahmaputra river** near Saraighat and was the **last major attempt** by the Mughals to extend their empire into Assam.

The Ahom Kingdom:

- It was established by **Chaolung Sukapha** in the 13th century.
- It endured for **six centuries** as the ruling power in Assam.
- The Ahoms governed the region until it was annexed to British India in 1826 through the signing of the **Treaty of Yandaboo**.

27. (c)

In News: The Reang community, a Particularly Vulnerable Tribal Group (PVTG), has requested official recognition for their language, Kaubru. India has 75 PVTGs, identified based on the Dhebar Commission's recommendations, characterized by backwardness, low literacy, and distinct cultural practices.

About:

- The largest tribal community in Tripura is the Tripuri tribe. **Statement (a) is not correct.**
- While Hojagiri is a popular dance form among the Reang tribe, it's not exclusively performed by men. Both men and women participate in this dance. **Statement (b) is not correct.**
- The Reang tribe practices Jhum Cultivation. **Statement (c) is correct.**
- The Reang tribe primarily follows a traditional animistic religion, they do not follow Buddhism. **Statement (d) is not correct.**

28. (c)

The ethnic Reang community has demanded that Tripura declare a holiday on **Hojagiri Day**, which celebrates the **traditional Hojagiri dance**.

- Reang are the **second largest tribal community of Tripura**.
- It is one of the **75 Particularly Vulnerable Tribal Groups (PVTGs)** in India.
- **Kaubru is the oral language of the Bru ethnic people.**
 - The Bru are an indigenous ethnic group living in Thailand, Laos, and Vietnam.
- By religion they are Hindus and most of their deities are akin to gods and goddesses of Hindu faith.

29. (c)

Context: Guru Tegh Bahadur Martyrdom Day is observed every year on 24 November to honour the sacrifice of the ninth Sikh Guru.

About Guru Tegh Bahadur:

- **Early Life:** He was born on **1 April 1621** in Amritsar and was the **youngest son of Guru Hargobind Sahib**, the sixth Sikh Guru.

- Guru Teg Bahadur was known as **Teyag Mal** in his youth and he later earned the title “Tegh Bahadur” by his father.
- **In 1664**, he became the ninth Sikh Guru.

Historical Significance:

- Guru Tegh Bahadur, revered as **Hind ki Chadar (Shield of India)**, sacrificed his life to protect religious freedoms.
- **In 1675**, he was martyred in Delhi, defending the Kashmiri Pandits against forced conversions under **Aurangzeb’s rule**.
- The site of his martyrdom is now marked by **Gurudwara Sis Ganj Sahib**.

30. (d)

Context: Recently, social reformer and writer Jyotiba Phule’s death anniversary was observed.

Jyotiba Phule (11th April, 1827 - 28th November, 1890):

- He was a **writer**, and **anti-caste social reformer** from Maharashtra.
- It is believed that it was Phule who **first used the term ‘Dalit’** for the depiction of oppressed masses often placed outside the ‘varna system’.
- He, along with his followers, formed the **Satyashodhak Samaj (Society of Truth Seekers)** in 1873.
- Bestowed with the **title of Mahatma** on 11th May 1888 by a Maharashtrian social **activist Vithalrao Krishnaji Vandekar**.
- **Famous Books:** Gulamgiri (Slavery), Shetkarayacha Aasud (Cultivator’s Whipcord), and Tritiya Ratna.

31. (a)

The Siddis are **descendants of the Bantu populations of East and Central Africa**.

- The ethnic group came to India **through the slave trade centuries ago**.
- The population resides **primarily in five states** (Goa, Gujarat, Karnataka, Maharashtra, and Telangana), but the majority (90%) reside in Gujarat or Karnataka.
- The government of India has recognized the **Siddi people as a Scheduled Tribe (ST) in some regions**.

32. (d)

In News: Recently, the Kerala Revenue Department, under the **Operation Smile project**, has initiated steps **to provide land titles** to the Koraga community in Kasaragod, Kerala.

- The Koraga tribal community, **primarily found in the Dakshina Kannada and Udupi districts of Karnataka** and the **Kasaragod district of Kerala**, is one of India’s indigenous groups with a rich cultural heritage and a history of resilience.
- Their **language, Koraga**, is part of the **Dravidian language family**, though many community members **now speak Tulu and Kannada** due to regional influences.

33. (c)

Context: November 28 marks the death anniversary of great Indian activist and reformer, Jyotiba Phule.

About: Jyotiba Phule:

- **Birth:** He was born on **11th April, 1827** in Khatgun village which is today in the Satara district of **Maharashtra**.

- **Title:** His family belonged to the 'mali' caste and their original title was 'Gorhay'. On May 11, 1888, he was bestowed with the title of **Mahatma** by a Maharashtrian social activist Vithalrao Krishnaji Vandekar.
- **Ideology and influence:** His ideology centered around **liberty, egalitarianism, and socialism**. He drew inspiration from **Thomas Paine's** book *The Rights of Man*.
- **Marriage:** He was married off when he was only 13 with **Savitribai**. The couple went on to establish the country's **first school for girls** in Bhidewada, Pune, in 1848.

34. (d)

Context: Guru Tegh Bahadur Martyrdom Day is observed every year on 24 November to honour the sacrifice of the ninth Sikh Guru.

About Guru Tegh Bahadur:

- **Early Life:** He was born on **1 April 1621** in Amritsar and was the **youngest son of Guru Hargobind Sahib**, the sixth Sikh Guru.
 - Guru Teg Bahadur was known as **Teyag Mal** in his youth and he later earned the title "Tegh Bahadur" by his father.
 - **In 1664**, he became the ninth Sikh Guru.
- **Contributions:** He established **Anandpur Sahib**, strengthened Sikh institutions, and added over **700 hymns** to the **Guru Granth Sahib**, leaving a profound spiritual legacy.

35. (d)

The 299-member Assembly had 15 women members, including prominent figures such as **Sarojini Naidu**, Sucheta Kripalani, and Vijaya Lakshmi Pandit.

- **Ammu Swaminathan (1894-1978):** She contested Central Legislative Assembly elections on a Congress ticket from Madras in 1945 and then became a member of the Constituent Assembly.
 - She strongly opposed the restrictions imposed on widows, such as shaving the head and renouncing jewellery, after seeing her mother's experience.
- **Rajkumari Amrit Kaur:** The first Health Minister of independent India, she was also a member of the Constituent Assembly.
 - She was deeply involved in the discussions on social welfare, healthcare, and education, with a focus on women's health and social issues.

36. (c)

About Ramappa Temple:

- **Brief:** The Ramappa Temple, also known as the **Rudreshwara Temple**, is a magnificent testament to the architectural prowess of the Kakatiya dynasty.
- The presiding deity of the temple is **Ramalingeswara Swamy**.
- Located in **Palampet, Telangana**, this 13th-century temple was **inscribed as a UNESCO World Heritage Site in 2021**.
- **Key Features:**
 - The temple is renowned for its exquisite sculptures, depicting gods, goddesses, dancers, and mythical creatures.
 - The **“sandbox technique”** used in the foundation of the temple has been a marvel of engineering. Kakatiyas adopted the **Chalukyan Style of Vesara Architecture**.
 - The **sandbox technique** involves filling a pit (dug for the foundation) with a mixture of sand-lime, jaggery (for binding), and karakkaya (black myrobalan fruit) before constructing the building.
 - ♦ The lower part of the temple is constructed using **red sandstone**.
 - ♦ The pillars are **made of basalt, while the white gopuram is made of light bricks** that are said to float on water, showcasing the advanced engineering methods of the time.



ECONOMY

1. Which of the following statements is correct regarding a “mule account”?
- (a) It is a bank account used exclusively for legitimate high-value transactions.
 - (b) It is an account used to move money across borders for international aid.
 - (c) It is a bank account used to facilitate illegal activities, often by hiding the true beneficiaries.
 - (d) It is an account that restricts all international transactions.
2. With reference to the Kodo Millet, consider the following statements:
- 1. It is grown in India and Pakistan only.
 - 2. It is cultivated in Gujarat, Karnataka, Chhattisgarh, and parts of Tamil Nadu.

Which of the statements given above is/are correct?

- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
3. Regional Rural Banks (RRBs) were established on the recommendations of which of the following committees?
- (a) B. Sivaraman Committee
 - (b) Narsimhan Committee
 - (c) Rangarajan Committee
 - (d) R.K. Talwar Committee
4. Agrivoltaic farming is an innovative agricultural practice that combines which two elements to optimize land use?
- (a) Fish farming and rice cultivation
 - (b) Solar energy production and agriculture
 - (c) Aquaculture and hydroponics
 - (d) Livestock grazing and forest management
5. With reference to the *Regional Rural Banks in India*, consider the following statements:
- 1. These are Indian Scheduled Commercial Banks operating at regional level in different states of India.
 - 2. They provide para-banking facilities like credit cards, mobile and internet banking.

Which of the statements given above is/are correct?

- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
6. With reference to the Tea Production in India, which of the following statements is/are correct?
- 1. The average annual temperature for tea plants to grow well is in the range of 15-23°C.
 - 2. Assam grows about 85% of the teas produced 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

7. Which of the following statements about Corporate Social Responsibility (CSR) requirements in India is correct?
- (a) Companies are required to transfer unspent CSR funds to a government-specified fund immediately if not used.
 - (b) If CSR funds remain unspent, they can be carried over to the next fiscal year indefinitely.
 - (c) The 2019 amendment mandates that unspent CSR funds must be utilized within three years, failing which they are deposited in a specified government fund.
 - (d) There are no penalties for non-compliance with CSR requirements.

8. With reference to the Rubber Production in India, which of the following statements is/are correct?
- 1. Rubber grows well in hot and humid conditions with temperatures between 25-35°C.
 - 2. Kerala is the leading state in rubber production, contributing over 70% of India's total output.

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
9. Which of the following statements is **not correct** regarding the Kodo Millet (*Paspalum scrobiculatum*)?
- (a) In India, it is grown mostly in the Deccan region.
 - (b) It is rich in dietary fiber and minerals like iron, antioxidant.
 - (c) It is beneficial in managing asthma, migraines, and postmenopausal health in women.
 - (d) The phosphorus content in kodo millet is higher than any other millet.
10. With reference to the Foreign portfolio investment (FPI), which of the following statements is/are correct?
- 1. FPI consists of securities and other financial assets held by investors in another country.
 - 2. It does not provide the investor with direct ownership of a company's assets.

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
11. With reference to the National Financial Reporting Authority (NFRA), consider the following statements:
- 1. NFRA was constituted in 2018 under the provisions of the Companies Act, 2013.
 - 2. NFRA is responsible for monitoring and enforcing compliance with accounting and auditing standards for all companies registered in India.
 - 3. One of the objectives of NFRA is to improve the quality of corporate financial reporting in India.

Which of the statements given above is/are correct?

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

- 12.** With reference to the Consumer Price Index (CPI), which of the following statements is/are correct?
1. It tracks the average change in the prices paid by consumers for a basket of goods and services over time.
 2. It is an indicator of retail inflation 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
- 13.** With reference to the Blockchain technology, which of the following statements is/are correct?
1. It is a decentralized, distributed ledger system that records transactions across many computers in a way that ensures transparency.
 2. It relies on consensus algorithms to validate transactions and maintain network integrity.

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
- 14.** Which of the following statements is true about cryptocurrencies?
- (a) Cryptocurrencies are centralized digital currencies controlled by government authorities
 - (b) Cryptocurrencies are primarily physical coins that are exchanged for goods and services
 - (c) Cryptocurrencies are completely immune to cyber-attacks and fraud
 - (d) Cryptocurrencies use blockchain technology to operate on decentralized networks

- 15.** Which of the following powers does the Central Consumer Protection Authority (CCPA) hold under the Consumer Protection Act, 2019?
- (a) Conduct investigations into violations of consumer rights and impose penalties
 - (b) Regulate the prices of consumer goods
 - (c) Set up consumer tribunals to resolve disputes
 - (d) Issue new consumer protection laws

- 16.** With reference to the 'Net Borrowing Ceiling (NBC)', consider the following statements:
1. It is a monetary policy tool imposed by the central government to regulate the borrowing capacity of state governments.
 2. It is set at 3% of each state's projected Gross State Domestic Product (GSDP) for the fiscal year 2023-24.

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.** Consider the following statements:
1. Sesame is an ancient oilseed crop, with remnants of its seeds discovered at the sites of Harappa and Mohenjodaro.
 2. Sesame oil is highly beneficial from a medicinal standpoint due to its antioxidant content.
 3. Sesame is commonly used as the primary edible oil in India

Which of the statements given above is/are correct?

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

- 18.** With reference to the Central Value Added Tax, which of the following statements is/are correct?
1. It is applicable only to the manufacturing of goods and does not include service tax liabilities.
 2. Tax credits can be claimed for capital goods, inputs, and input services.

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 |

- 19.** Which of the following is NOT a function of Non-Banking Financial Companies (NBFCs)?
- (a) Offering loans and advances
 - (b) Acquiring shares, stocks, bonds, or marketable securities
 - (c) Issuing cheques drawn on itself
 - (d) Operating deposit schemes in various formats

- 20.** With reference to the Basic Animal Husbandry Statistics 2024, which of the following statements is/are correct?
1. India is the largest producer of milk globally.
 2. Uttar Pradesh is the top milk producing state 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 |

- 21.** With reference to the Geographical Indication (GI) tag, consider the following statements:
1. The registration of a geographical indication is valid for a period of 10 years.
 2. Narasapuram lace from Tamil Nadu has recently received the GI tag.

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 Asian Development Bank (ADB), consider the following statements:
1. It was established in 1966 and is headquartered in Shanghai, China.
 2. India is a founding member of the ADB and its second-largest shareholder.

Which of the statements given above is/are correct?

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

EXPLANATIONS

- 1. (c)**

A mule account is typically used to move illegally obtained funds, concealing the identities of those actually involved in the criminal activities. A money mule is a person who transfers illegally obtained money on behalf of someone else, often unknowingly. They may receive a fee for moving the funds, which helps criminals avoid detection.

2. (b)

Statement 1 is not correct: Kodo millet (*Paspalum scrobiculatum*) is also known as Kodra and Varagu in India.

- **Distribution:** The crop is grown in India, Pakistan, the Philippines, Indonesia, Vietnam, Thailand, and West Africa.

Statement 2 is correct: Conditions: The tropical and subtropical regions are best suited for Kodo millet cultivation and it is grown on poor soils, and widely distributed in arid and semi-arid regions.

- Apart from MP, the millet is cultivated in Gujarat, Karnataka, Chhattisgarh, and parts of Tamil Nadu.

3. (b)

The Finance Ministry has put forward a proposal to consolidate the country's regional rural banks from 43 down to 28. This move aims to bolster the banks' capital and reduce expenses.

The **Narasimham Committee**, specifically the Narasimham Working Group on Rural Credit (1975), recommended the establishment of Regional Rural Banks (RRBs) to cater to the credit needs of rural areas and to promote agricultural and rural development.

Other Committees:

- **B. Sivaraman Committee:** Focused on strengthening cooperative credit structures for better rural credit access.
- **Rangarajan Committee:** Addressed financial inclusion, recommending expanded banking services for underserved and rural areas.
- **R.K. Talwar Committee:** Emphasized improving customer service in banks and establishing ethical banking standards.

4. (b)

Context: The Seventh Session of the International Solar Alliance (ISA) in New Delhi showcased the practical implementation of **Agrivoltaic farming**.

About Agrivoltaic Farming:

- Also called **agrisolar or dual use solar**, it is the practice of growing crops **underneath solar panels**.
- The panels are positioned **2-3 metres** off the ground and sit at an angle of **30 degrees** that can be elevated or suspended to allow plants to grow beneath them.
 - This allows enough **light/shade and rainwater** to reach the crops, as well as providing access for farm machinery and certain crops appear to thrive more when grown in such environments.
- **Benefits:** It enhances land efficiency, increases crop yield by providing partial shade, and generates additional income from solar energy.

5. (c)

In News: Recently, the Union government has **proposed merging 'Regional Rural Banks'**, guided by the **'One State-One RRB' strategy**, which seeks to enhance the operational efficiency, financial stability, and technological capabilities of these banks.

Statement 1 is correct:

- RRBs were established under the provisions of an **Ordinance passed in 1975** and as per the recommendations of the **Narasimham Committee** on Rural Credit which further led to the passing of the **Regional Rural Banks Act in 1976**.

- These are **Indian Scheduled Commercial Banks** operating at regional level in different states of India.
- Collectively, these banks had **deposits** of 6.6 trillion rupees (\$78.46 billion) and **advances** of 4.7 trillion rupees as of March 31, 2024.

Statement 2 is correct:

- **Regional Rural Banks** provide banking facilities to **rural and semi – urban areas**, carrying out government operations like disbursement of wages of MGNREGA workers, distribution of pension etc.
- They provide **Para-Banking facilities** like locker facilities, debit and credit cards, mobile banking, internet banking, UPI etc.

6. (a)

Indian Tea Industry:

- **India** is the **2nd largest** tea producer and largest black tea producer.
- Indian teas are exported to various destinations like Iran, Iraq, Syria, Saudi Arabia, Russia etc. and is the **4th largest** tea exporter in the World.
- Assam grows about **55%** of the teas produced in India. India's tea production has increased by **39%** in 2022 from 2008.

Geographical Condition for Tea production:

- The tea plant grows well in **tropical and subtropical** climates. Tea bushes require a **warm and moist frost-free climate** all through the year.
- **Temperature:** The average annual temperature for tea plants to grow well is in the range of **15-23°C**.
- **Precipitation:** The rainfall needed is between **150-200 cm**. Frequent showers evenly distributed over the year ensure continuous growth of tender leaves.
- **Major tea producing states** are Assam, hills of Darjeeling and Jalpaiguri districts in West Bengal, Tamil Nadu and Kerala.
 - Apart from these, Himachal Pradesh, Uttarakhand, Meghalaya, Andhra Pradesh and Tripura are also tea-producing states in the country.

7. (c)

Corporate Social Responsibility (CSR) in India:

- CSR means companies contribute to societal, environmental, and economic development to benefit communities.
- CSR is regulated by Section 135 and Schedule VII of the Companies Act, 2013, along with the CSR Policy Rules, 2014.
- CSR is required for companies that meet any one of these criteria:
 - Net worth of ₹500 crore or more,
 - Annual turnover of ₹1,000 crore or more,
 - Net profit of ₹5 crore or more.
- Qualifying companies must allocate 2% of their average net profits over the last three years to CSR activities.
- Companies not meeting CSR requirements face fines from ₹50,000 to ₹25 lakh.
- Responsible officers may face up to 3 years in prison and fines between ₹50,000 and ₹5 lakh.

- **2019 Amendment:** Before 2019, Unspent CSR funds could be carried over to the next year. After 2019, Unspent funds must be transferred to a Schedule VII fund by the fiscal year-end and used within three years. If still unspent, the funds go to a government-specified fund.

8. (c)

Geographical Conditions for Rubber production:

- **Climate:** Hot and humid conditions with temperatures between 25-35°C.
- **Rainfall:** Annual precipitation between 1,800-2,500 mm.
- **Soil Type:** Deep, well-drained loamy or lateritic soils with good water-holding capacity.
- **Altitude:** Generally grown up to 300 meters above sea level.

Rubber Production in India:

- **Kerala:** The leading state in rubber production, contributing over 70% of India's total output.
- Other states are **Tamil Nadu, Karnataka, Tripura, and Assam.**

9. (d)

Context: Forest officials suspect that the recent deaths of 10 elephants in Madhya Pradesh's Bandhavgarh Tiger Reserve may have been caused by "mycotoxins associated with kodo millet".

About: kodo millet:

- In India, Kodo Millet (*Paspalum scrobiculatum*) is grown mostly in the **Deccan region** and the cultivation extends to the foothills of Himalayas.
- Kodo millet is rich in dietary fiber and minerals **like iron, antioxidant.**
- The **phosphorus content** in kodo millet is **lower** than any other millet and its antioxidant potential is much higher than any other millet and major cereals.
- Kodo millet is beneficial in managing **asthma, migraines**, heart attacks, and **postmenopausal** health in women.

10. (c)

Context: The Reserve Bank of India issued an operational framework for reclassification of investment made by a foreign portfolio investor (FPI) to foreign direct investment (FDI) if the entity breaches the prescribed limit.

Foreign portfolio investment (FPI):

- FPI consists of securities and other financial assets held by investors in another country.
- It does **not provide the investor with direct ownership of a company's assets** and is relatively liquid depending on the volatility of the market.
- **FPI holdings can include** stocks, American Depositary Receipts (ADRs), Global Depositary Receipts (GDRs), bonds, mutual funds, and Exchange-traded funds (ETFs).
- It is different from **Foreign direct investment (FDI)**, which is an ownership stake in a foreign company or project made by an investor, company, or government from another country.

11. (a)

Statement 1 is correct: NFRA was constituted in 2018 under Section 132(1) of the Companies Act, 2013.

Statement 2 is not correct: NFRA oversees compliance mainly for large companies and specific classes of companies, not all companies registered in India.

Statement 3 is correct: The primary goal is to ensure high standards in financial reporting and auditing practices. NFRA also aims to improve the transparency, reliability, and accuracy of corporate financial statements in India.

12. (c)

Context: According to the National Statistical Office (NSO), the retail inflation rate in India surged to a 14-month high of **6.21%** in October, driven by a notable increase in the prices of essential food items.

What is Retail Inflation?

- Retail inflation refers to the **rate at which the general price level of goods and services bought** by households increases over a specific period.
- In India, retail inflation is measured by the **Consumer Price Index (CPI)**, which tracks the changes in the prices of a basket of goods and services typically consumed by urban and rural households.

Consumer Price Index (CPI):

- CPI is an economic measure that **tracks the average change in the prices** paid by consumers for a basket of goods and services over time.
- The **CPI in India** is compiled by the **National Statistical Office (NSO)** and is categorized into CPI for **urban** and **rural** areas.
 - These indices are then combined to calculate the **CPI (Combined)**, which gives a comprehensive overview of inflation for the entire country.

13. (c)

Blockchain technology:

- Blockchain technology is a **decentralized, distributed ledger system** that records transactions across many computers in a way that ensures security and transparency.
- Blockchain networks rely on **consensus algorithms to validate transactions** and maintain network integrity.
 - These mechanisms ensure that **only legitimate transactions are added** to the chain.

14. (d)

Context: Bitcoin, the world's largest cryptocurrency, has soared to an all-time high after Donald Trump's historic win in the US presidential elections.

What is Cryptocurrency?

- Cryptocurrency is a type of **digital or virtual currency** that uses cryptography for security, making it difficult to counterfeit or double-spend.
- It operates on decentralized networks based on **blockchain technology**—a **distributed ledger** enforced by a network of computers.
- Cryptocurrencies are typically **not controlled by any central authority**, which makes them theoretically immune to government interference or manipulation.

15. (a)

Consumer Protection Act, 2019:

- This Act replaced **The Consumer Protection Act, 1986**, and seeks to widen its scope in addressing consumer concerns.
- The new **Act recognises offenses such as providing false information** regarding the quality or quantity of a good or service, and misleading advertisements.
- The **Act came into force in July 2020** and it will empower consumers and help them in protecting their rights through its various notified rules and provisions.

Central Consumer Protection Authority

- **Section 10** of the Consumer Protection Act, 2019 establishes the **Central Consumer Protection Authority** which seeks to promote, protect and enforce the rights of consumers as a class.
- **Powers & Functions of CCPA:** It is empowered to:
 - conduct investigations into violation of consumer rights and institute complaints/prosecution
 - order recall of unsafe goods and services
 - order discontinuation of unfair trade practices and misleading advertisements
 - impose penalties on manufacturers/endorsers/publishers of misleading advertisements.

16. (b)

In News: The recent imposition of the **Net Borrowing Ceiling (NBC)** by the central government has sparked significant debate and controversy, particularly in the context of federalism and fiscal autonomy in India.

Statement 1 is not correct:

- **Net Borrowing Ceiling (NBC)** is a **fiscal policy tool (not monetary policy)** imposed by the central government to regulate the borrowing capacity of state governments. It aims to ensure fiscal discipline among states.

Statement is correct:

- For the **fiscal year 2023-24**, the NBC is set at **3% of each state's projected Gross State Domestic Product (GSDP)**. This ceiling encompasses all forms of borrowing, including loans from financial institutions, open market borrowings, and liabilities from the public accounts of the states.
- Additionally, the ceiling has been extended to cover borrowings by State-owned enterprises to prevent circumvention of the borrowing cap.

17. (a)

Context: A new microbe causing disease in sesame fields of Midnapore, West Bengal was identified by researchers.

About: Sesame

- Sesame, the Queen of Oil, is an **ancient oilseed crop** since the remnants of sesame seeds were discovered at **Harappa and Mohenjodaro**.
- Sesame oil is excellent from a **medicinal point** of view as it contains **antioxidants**, and it is perfect for **heart patients**.
- However, despite its advantages, sesame is **not commonly used** as the **primary edible oil** in India and to harness the benefits of Indian sesame varieties, improvements are needed.

18. (b)

Context: The Supreme Court allowed telecom companies to claim Central Value Added Tax (CENVAT) credit for the installation of mobile towers and peripherals like prefabricated buildings (PFBs) for which they pay excise duties.

What is CENVAT?

- **The Central Value Added Tax**, is a mechanism under the **CENVAT Credit Rules, 2004**, which allows manufacturers and service providers to offset their excise duties or service tax liabilities with input tax credits.
- This system helps **reduce the cascading effect of taxes**, thereby promoting efficiency in the taxation process.

- **Key Features;**
 - It applies to **excisable goods and services**.
 - Tax credits can be **claimed for capital goods, inputs, and input services** used in the production of goods or provision of services.
 - It ensures that **taxes are paid only on the value addition** at each stage of production or service delivery.

19. (c)

Non-Banking Financial Corporation (NBFCs)?

- NBFCs are companies registered under the **Companies Act, 1956**, engaged in financial activities such as;
 - Offering loans and advances,
 - Acquiring shares, stocks, bonds, debentures, or other marketable securities,
 - Operating deposit schemes in various formats.
- It does not include any institution whose **principal business is that of agriculture activity, industrial activity, purchase or sale of any goods** (other than securities) or providing any services and sale/purchase/construction of immovable property.
- The functions of the NBFCs are managed by both the **Ministry of Corporate Affairs and the Reserve Bank of India**.

What is the difference between banks & NBFCs?

- NBFCs lend and make investments and hence their activities are akin to that of banks; however there are a few differences as given below:
 - **Demand Deposits:** NBFC cannot accept demand deposits;
 - **Payment System:** NBFCs do not form part of the payment and settlement system and cannot issue cheques drawn on itself;
 - **Deposit Insurance:** Deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available to depositors of NBFCs, unlike in case of banks.

20. (c)

Context: The Union Minister of Fisheries, Animal Husbandry, and Dairying released the annual publication of 'Basic Animal Husbandry Statistics 2024' on the occasion of National Milk Day.

BAHS- 2024: Key Findings:

- **The Milk Production** was 239.30 million tonnes in 2023-24, marking a 5.62% growth over the last decade and 3.78% increase over 2022-23.
 - **Top Producing States:** Uttar Pradesh (16.21%), Rajasthan (14.51%) and Madhya Pradesh (8.91%).
 - India remains the **largest producer** globally.

21. (a)

Context: **Narasapuram lace** from the West Godavari district, **Andhra Pradesh**, received the Geographical Indication (GI) tag.

About:

- **Narasapuram lace:** Made using cotton threads in a variety of colors. Crafted with thin crochet needles of varying sizes for intricate designs.
- **GI Tag:** It is a sign used on products that have a specific geographical origin and possess qualities or a reputation.

- The registration is valid for **10 years**, renewable thereafter.
- Managed by the Department for Promotion of Industry and Internal Trade (DPIIT), under the Ministry of Commerce and Industry.

22. (d)

Context: The Asian Development Bank (ADB) Board of Governors has unanimously elected Masato Kanda as its 11th President.

About: Asian Development Bank (ADB)

- It was **established in 1966** and is a regional development bank that aims to promote a prosperous, inclusive, resilient, and sustainable Asia and the Pacific while focusing on eradicating extreme poverty.
- ADB offers loans, technical assistance, grants, and equity investments to its member countries to support their social and economic development.
- India is a **founding member** of the ADB and its **fourth-largest** shareholder.
- Headquarters: **Manila, Philippines**



INDIAN POLITY & CONSTITUTION

1. In India, if a religious sect/community is given the status of a national minority, what special advantages is it entitled to?
1. It can establish and administer exclusive educational institutions.
 2. The President of India automatically nominates a representative of the community to Lok Sabha.
 3. It can derive benefits from the Prime Minister's 15-Point Programme.

Which of the statements given above is/are correct?

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

2. Which one of the following amendments in the Constitution of India altered the 'Right to Property' from a fundamental right to legal and constitutional right?
- (a) 42nd Amendment (1976) (b) 43rd Amendment (1977)
(c) 44th Amendment (1978) (d) 46th Amendment (1982)
3. With reference to the Overseas Citizen of India (OCI), which of the following statements is/are correct?
1. OCI was introduced by the Indian government in 2015.
 2. A registered OCI is granted multiple entry, multi-purpose life-long visa for visiting 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

4. Which of the following statements about the Regional Comprehensive Economic Partnership (RCEP) is correct?
- (a) RCEP countries account for about half of the global GDP.
(b) RCEP includes only the ASEAN countries.
(c) RCEP is the world's largest trade agreement, including both ASEAN and other Asia-Pacific countries.
(d) India was not the founding member of RCEP.
5. With reference to the 'Antitrust Laws in India', consider the following statements:
1. These are designed to promote fair competition and prevent monopolistic practices.
 2. The primary legislation governing antitrust issues is the Competition Act, 2002.

Which of the statements given above is/are correct?

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

6. With reference to the Inter-State Council (ISC) in India, consider the following statements:
1. The Inter-State Council was established under Article 263 of the Constitution of India.
 2. It is a permanent constitutional body chaired by the Home Minister of India.
 3. The ISC provides a forum for discussions on disputes between states and between the center and states.

Which of the statements given above is/are correct?

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

7. With reference to the '106th Constitutional Amendment' of Indian Constitution, consider the following statements:

1. It reserves one-fourth of all seats for women in Lok Sabha and State Legislative Assemblies.
2. It is not applicable to State Legislative Assemblies of Union Territories.

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. With reference to the borrowing limits of Centre and States Governments, consider the following statements:

1. The central government can borrow money upon the security of the Consolidated Fund of India.
2. State governments can borrow within India upon the security of the Consolidated Fund of the State.
3. The borrowing limits for states can be set by their respective legislatures.

How many of the statements given above are correct?

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

9. '73rd and 74th Constitution Amendment' to the Constitution of India is related to which of the following?

- (a) President's assent to Constitutional Amendment Bill
- (b) Official Languages
- (c) National Commission for SC/ST
- (d) Local Self Government

10. Which among the following are the main sources of funding of Urban Local Bodies (ULBs)?

1. Property Tax
2. Finance Commission Grants
3. Lease and advertising revenues
4. Goods and Services Tax (GST)

Select the correct answer using the code given below:

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

11. '12th Schedule of the Constitution' of India deals with which of the following?
- The powers, responsibilities, and authorities of Municipalities.
 - The powers, responsibilities, and authority of Panchayats.
 - Lists the official languages of India.
 - Division of powers between the Union and the State governments.
12. With reference to the 'Press Council of India (PCI)', consider the following statements:
- It is a quasi-judicial and statutory authority.
 - Its decisions are final and cannot be challenged in any court.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
13. With reference to the Comptroller & Auditor General (CAG) of India, consider the following statements:
- It is responsible for auditing all receipts and expenditure of the Government of India and the state governments.
 - It enjoys the same status as a sitting judge of the Supreme Court of India in order of precedence.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
14. With reference to the Parliamentary Standing Committee on Defence, consider the following statements:
- The Chairperson of the Committee is appointed by the Speaker of the Lok Sabha.
 - The term of office for the Members of the Committee is five years.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
15. Which among the following are the members of the Delimitation Commission in India?
- Retired Supreme Court judge
 - Chief Election Commissioner
 - Respective State Election Commissioners
- Select the correct answer using the code given below:
- 1 and 2 only
 - 2 and 3 only
 - 1 and 3 only
 - 1, 2 and 3
16. The 'Section 479 of the Bharatiya Nagarik Suraksha Sanhita (BNSS)', sometimes appeared in the media, is related to:
- Criminalising Marital Rape
 - Bail For First-Time Offenders
 - Criminalising Unnatural Sex
 - Prosecution For Defamation

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 'Prohibition of Child Marriage Act (PCMA), 2006', consider the following statements:

1. It replaced the earlier Child Marriage Restraint Act of 1929.
2. It sets the minimum age of marriage at 18 for women and 21 for men.
3. It mandates the appointment of Child Marriage Prohibition Officers (CMPOs) to prevent child marriages

How many of the statements given above are correct?

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

24. With reference to the National Consumer Disputes Redressal Commission, consider the following statements:

1. It is a quasi-judicial commission which was set up in 1988 under the Consumer Protection Act of 1986.
2. It is headed by the Chief Justice of India (CJI).

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 University Grants Commission (UGC), consider the following statements:

1. It is a non-statutory body responsible for disbursing grants to universities and colleges.
2. It serves as a vital link between the Union and State Governments and institutions of higher learning.

Which of the statements given above is/are correct?

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

EXPLANATIONS

1. (c)

Statement 1 is correct: Under Article 30 of the Indian Constitution, national minorities have the right to establish and administer educational institutions of their choice.

Statement 2 is not correct: The President does not automatically nominate a representative of a national minority to the Lok Sabha.

Statement 3 is correct: National minorities can benefit from schemes under the Prime Minister's 15-Point Programme, which focuses on welfare and development for minorities, including education, employment, and skill development.

2. (c)

In News: Recently, a nine-judge Constitution Bench of the Supreme Court of India ruled that the State cannot take over private property solely under the pretext of serving the 'common good'.

- Private property rights in India have evolved through various constitutional amendments and judicial interpretations.
- **Initially**, the 'right to property' was a **fundamental right under Article 19(1)(f) and Article 31** of the Constitution.
- However, the **44th Amendment in 1978** relegated it to a **constitutional and legal right under Article 300A**, allowing the state to acquire private property only through due process and with adequate compensation.

3. (b)

Overseas Citizen of India:

- OCI was introduced by the Indian government in **2005**.
- A registered OCI is **granted multiple entry, multi-purpose life-long visa** for visiting India.
- **They are exempted** from registration with Foreign Regional Registration Officer (FRRO) or Foreign Registration Officer (FRO) for any length of stay in India.
- OCI cardholders can open special bank accounts in India, they can buy non-farm property and exercise ownership rights and can also apply for a driver's license and PAN card.
 - However they are **required to seek permission** or a permit to visit protected areas in India.

4. (c)

Regional Comprehensive Economic Partnership (RCEP) is the **world's largest trade agreement**, encompassing **15 countries in the Asia-Pacific region**. It includes the **10 ASEAN** countries (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam) along with **five other countries**: Australia, China, Japan, New Zealand, and South Korea. RCEP countries account for about **30%** of the global GDP. India was indeed a founding member of the RCEP negotiations. However, India later withdrew from the agreement in 2019 due to concerns about potential negative impacts on domestic industries and the economy.

5. (c)

In News: A recent investigation by the **Competition Commission of India (CCI)** found that food delivery giants Zomato and Swiggy breached antitrust laws **by entering into exclusivity contracts** with restaurant partners, which **reduced competition in the market**.

Statement 1 is correct

- **Antitrust Laws in India** are also known as **Competition Laws**, are designed to promote fair competition and prevent monopolistic practices that can harm consumers and the economy.

Statement 2 is correct

- In India, the primary legislation governing antitrust issues is the **Competition Act, 2002**, which is **enforced by the Competition Commission of India (CCI)**.
- It aims to prevent practices that have an adverse effect on competition, promote and sustain competition in markets, protect the interests of consumers, and ensure freedom of trade.

6. (b)

Statement 1 is correct: The Inter-State Council was established under Article 263 of the Constitution of India, which empowers the President to set it up if necessary.

Statement 2 is not correct: The ISC is not a permanent body; it is a constitutional body created as needed. The Prime Minister, not the Home Minister, chairs the Council.

Statement 3 is correct: One of the ISC's functions is to provide a platform for discussing and advising on inter-state and center-state disputes.

7. (d)

Both the Statements are incorrect:

- **106th Constitutional Amendment:** It reserves **one-third** of all seats for women in **Lok Sabha, State Legislative Assemblies, and the Legislative Assembly of the National Capital Territory of Delhi**, including those reserved for SCs and STs.
- It shall come into **effect based on the Delimitation Exercise** after the relevant figures of the first Census conducted after the commencement of this act is published.

8. (c)

In News: The recent imposition of the Net Borrowing Ceiling (NBC) by the central government has sparked significant debate and controversy, particularly in the context of federalism and fiscal autonomy in India.

Statement 1 is correct

- **Centre's Borrowing Powers (Article 292):** The central government can borrow money **upon the security of the Consolidated Fund of India**.
- The extent of borrowing is **subject to limits** set by laws enacted by Parliament.

Statement 2 is correct

- **States' Borrowing Powers (Article 293):** State governments can borrow within India upon the security of the **Consolidated Fund of the State**.
- However, Article 293(3) imposes restrictions on State governments if they have outstanding loans or guarantees from the central government.

Statement 3 is correct

- The borrowing **limits for states** can be set by their **respective legislatures**.
- The **Centre can impose conditions** on such borrowing consents.

9. (d)

The **73rd and 74th Constitution Amendment Acts** established local self-governance in rural and urban India respectively.

- The two amendments were added to the Constitution's Part IX, titled "The Panchayats" and Part IXA titled "The Municipalities" respectively.
- Following the two amendments, panchayats and municipalities were termed as **institutions of self-government**.

10. (c)

Funding of Urban Local Bodies (ULBs):

- **Own Revenues:**
 - **Property taxes** (main source)
 - **User charges/fees** for services like water, sanitation, and parking
 - **Land development charges** and fees for building permissions
 - **Lease and advertising revenues** from public spaces
- **State Government Transfers:**
 - **General and specific purpose grants** for urban development
 - **Finance Commission grants** allocated based on population and urban needs
- **Central Government Transfers:**
 - **Schemes like Smart Cities, AMRUT, Swachh Bharat Mission** for infrastructure and urban service projects
 - **Finance Commission devolution** to ULBs via states

- **External Funding:**
 - **World Bank and ADB loans** for urban infrastructure projects
 - **Bilateral aid and NGO funding** for specific projects

11. (a)

12th Schedule of the Constitution:

- It was added by the **74th Amendment Act of 1992**.
- It contains the **powers, authority and responsibilities** of Municipalities. This schedule has **18 items**.
 - Regulation of land use and construction of land buildings.
 - Urban planning including the town planning.
 - Planning for economic and social development.
 - Urban poverty alleviation.
 - Water supply for domestic, industrial and commercial purposes.
 - Fire services.
 - Public health sanitation, conservancy and solid waste management.
 - Slum improvement and up-gradation.
 - Safeguarding the interests of the weaker sections of society.
 - Urban forestry, protection of environment and promotion of ecological aspects.
 - Construction of roads and bridges.
 - Provision of urban amenities and facilities.
 - Promotion of cultural, educational and aesthetic aspects.
 - Burials and burials grounds, cremation and cremation grounds and electric crematoriums.
 - Cattle ponds, prevention of cruelty to animals.
 - Regulation of slaughter houses and tanneries.
 - Public amenities including street lighting, parking spaces, bus stops and public conveniences.
 - Vital statistics including registration of births and deaths.

12. (c)

In News: Recently, **National Press Day** was observed with the theme '**Changing Nature of the Press**', reflecting the evolving dynamics of the media landscape, and marking the day the **Press Council of India (PCI)** began its operations in 1966.

Statement 1 is correct

- **Press Council of India (PCI)** was officially formed under the **Indian Press Council Act, 1965**, and began its operations on November 16, 1966.
 - Since then, 16th November is celebrated as the **National Press Day**.
- However, the Council was **dissolved during the Emergency in 1975**, and a **new Act, the Press Council Act, 1978**, re-established the PCI in 1979, reaffirming its role as a **quasi-judicial body with statutory authority**.
- It acts as a moral watchdog, ensuring that the press remains free from external influences and maintains high standards of journalism.

Statement 2 is correct

- It can take **suo-motu action or investigate complaints** related to unethical reporting or interference with press freedom.
- Its decisions are **final and cannot be challenged in any court**.

13. (c)

In News: Recently, the Lok Sabha Speaker said that the Comptroller & Auditor General (CAG) has played a key role in fostering accountability, transparency and good governance in the country.

Statement 1 is correct

- The office of the CAG was established under **Article 148** of the Indian Constitution.
- The CAG is responsible for **auditing all receipts and expenditure of the Government of India and the state governments**, including those of bodies and authorities substantially financed by the government.

Statement 2 is correct

- The CAG enjoys the **same status as a sitting judge of the Supreme Court of India** in order of precedence.
- It ensures that financial operations are conducted in accordance with the law and that public money is used for the intended purposes.

14. (a)

Context: A meeting of the Parliamentary Standing Committee on Defence was held in Chennai to review the working of the Indian Coast Guard in ensuring coastal security along India's vast maritime boundaries.

About:

- The Parliamentary Standing Committee on Defence, one of the **24 Departmentally Related Standing Committees** in existence, is constituted under **Rule 331 C** of the Rules of Procedure and Conduct of Business in Lok Sabha.
- The Committee has the **Ministry of Defence** under its jurisdiction and **consists of 31 Members**; 21 Members from Lok Sabha, and 10 from Rajya Sabha.
- The **Chairperson of the Committee** is appointed by the **Speaker** from amongst the Members of the Committee from Lok Sabha. The term of office of the Members of the Committee **does not exceed** one year.

15. (d)

Delimitation Commission: The job of delimitation is assigned to the Delimitation Commission or a Boundary Commission.

- **Functions:**
 - To determine the **number and boundaries of constituencies** in a way that the population of all seats, so far as practicable, is the same.
 - **Identifying seats reserved for Scheduled Castes and Scheduled Tribes** wherever their population is relatively large.
- **Composition:** The Delimitation Commission is appointed by the **President of India** includes following members:
 - Retired Supreme Court judge
 - Chief Election Commissioner
 - Respective State Election Commissioners.

16. (b)

In News: Recently, the Union Home Minister said that undertrials who have spent more than a third of the maximum prescribed sentence for the crime they are accused of committing should be released before Constitution Day (November 26).

- Section 479 of the Bharatiya Nagarik Suraksha Sanhita (BNSS): It allows for the release of first-time offenders who have served one-third of their maximum sentence and other undertrials who have served half of their maximum sentence.
- This same standard was provided under the previously applicable Section 436A of the Code of Criminal Procedure, 1973 (CrPC).

17. (a)

Context: Senior Indian Administrative Service officer **K. Sanjay Murthy** has assumed office as the Comptroller and Auditor General (CAG) of India.

About: Comptroller and Auditor General (CAG) of India

- **Mandate:** CAG is a **Constitutional Body**, and its mandates are covered in **Articles 148 to 151** of the Indian Constitution.
- **Term and appointment:** Appointed by the **President of India**, CAG holds office for **6 years** or up to the age of **65 years**, whichever is earlier.
- **Status and removal:** It enjoys the same status as a **sitting judge of the Supreme Court of India** in order of precedence and can be removed by the **President of India** on the same grounds and in the same manner as a judge of the Supreme Court.
- **Duties and powers:** CAG heads the **Indian Audit and Accounts Department**, serves as the **guardian of the public purse**, and oversees the entire financial system of the country at both the central and state levels.

18. (c)

Central Adoption Resource Authority (CARA):

- It is a **statutory body** under the **Ministry of Women & Child Development**, oversees ethical and legal adoptions in India, prioritizing the best interests of children.
- As the **central authority for Indian adoptions**, CARA regulates and monitors both in-country and inter-country adoptions.
- It adhered to the **Hague Convention on Inter-country Adoption, 1993**, ratified by India in **2003**.

19. (a)

Context: Chief Justice of India Sanjiv Khanna addressed a batch of petitions challenging the inclusion of the words **“socialist, secular”** in the **Preamble of the Indian Constitution through the 42nd Amendment Act of 1976**.

Key Highlights:

- The Chief Justice clarified that the idea of “socialism” in India represents a welfare state that ensures equality of opportunity for all, and does not negate private sector participation.
- He rejected the claim that the Preamble, as adopted by the Constituent Assembly in 1949, could not be amended, stating that the **Preamble is part of the Constitution and subject to changes under Article 368**.
- He also asserted that both **‘socialism’ and ‘secularism’ are integral to the Constitution’s Basic Structure** and cannot be altered.

20. (a)

Context: President Droupadi Murmu addressed a joint sitting of both Houses of Parliament in the historic Central Hall of Samvidhan Sadan (Old Parliament House), marking 75 years of the adoption of India’s Constitution.

About: Constitution Day

- Also known as 'Samvidhan Divas', it is celebrated on 26th November every year to **commemorate the adoption of the Constitution of India**.
- While the Constitution was adopted on November 26, 1949 by the Constituent Assembly of India, it **came into effect** on January 26, 1950 when India became a republic.
- In a bid to promote constitutional values among citizens, the **Ministry of Social Justice and Empowerment** announced on **19th November 2015** that the Government of India would celebrate 26th November every year as Constitution Day.

21. (d)

97th Constitutional Amendment Act 2011:

- It established the right to form cooperative societies as a **fundamental right (Article 19)**.
- It included a **new Directive Principle of State Policy** on the **Promotion of Cooperative Societies (Article 43-B)**.
- It added a new **Part IX-B to the Constitution** titled **"The Co-operative Societies"** (Articles 243-ZH to 243-ZT).
- It authorizes the **Parliament to establish relevant laws** in the case of **multi-state cooperative societies (MSCS)** and state legislatures in the case of other cooperative societies.

22. (d)

Both the statements are not correct: The first person to call for an Indian Constituent Assembly was **M.N. Roy**, an Indian Revolutionary and radical activist, in **1934**.

- The chief architect of the Indian Constitution was **Dr. Bhimrao Ramji Ambedkar**, who is regarded as the **father of the Indian Constitution**.
- **Jawaharlal Nehru introduced the Objective Resolution**, which later evolved into the Preamble of the Constitution.

23. (c)

In News: Recently, the Union Women and Child Development Minister informed that the **child marriage rates have halved** between 2006 and 2019-21.

Statement 1 is correct

- **The Prohibition of Child Marriage Act (PCMA), 2006:** It is the **primary law** addressing the child marriage in India, which replaced the earlier **Child Marriage Restraint Act of 1929**.

Statement 2 is correct

- **Minimum Age of Marriage:** The PCMA sets the minimum age of marriage at 18 for women and 21 for men.
- Those who perform, conduct, or direct any child marriage can face rigorous imprisonment up to two years and/or a fine up to one lakh rupees.

Statement 3 is correct

- The act mandates the appointment of **Child Marriage Prohibition Officers (CMPOs)** to prevent child marriages, create awareness, and ensure the law's implementation.

24. (a)

Statement 1 is correct: **National Consumer Disputes Redressal Commission** is a **quasi-judicial commission** which was set up in **1988** under the **Consumer Protection Act of 1986**.

- It provides inexpensive, speedy and summary redressal of consumer disputes.

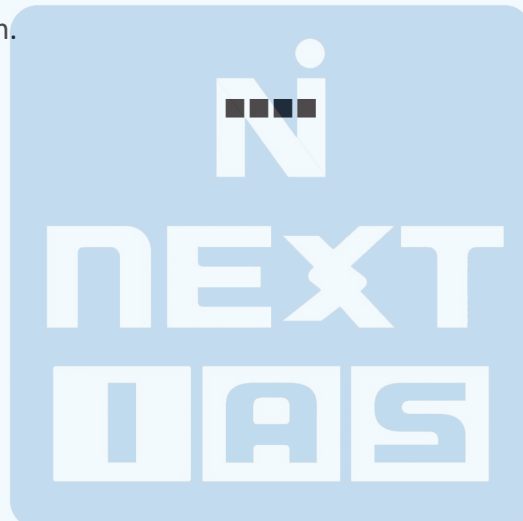
Statement 2 is not correct: The Commission is headed by a **sitting or a retired Judge of the Supreme Court or a sitting or a retired Chief Justice of a High Court.**

25. (b)

Context: The University Grants Commission (UGC) has recently approved a Standard Operating Protocol (SOP) for Higher education institutions (HEIs) to offer the Accelerated Degree Programme (ADP) and Extended Degree Programme (EDP).

About: University Grants Commission (UGC)

- It came into existence on 28th December, 1953 and became a **statutory Organization** of the Government of India by an **Act of Parliament in 1956.**
- The UGC's **mandate** includes:
 - Promoting and coordinating university education.
 - Determining and maintaining standards of teaching, examination, and research in universities.
 - **Disbursing grants** to the Universities and Colleges.
 - Serving as a **vital link between the Union and State Governments** and institutions of higher learning.
 - Advising the Central and State Governments on the measures necessary to improve university education.



GEOGRAPHY

1. Consider the following countries:

- | | |
|------------|-----------------|
| 1. Zambia | 2. Zimbabwe |
| 3. Namibia | 4. South Africa |

Which of the following countries shares borders with Botswana?

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

2. Which of the following groups of countries all share a border with Colombia?

- (a) Argentina, Ecuador, Panama, Peru, and Uruguay
- (b) Brazil, Ecuador, Panama, Peru, and Venezuela
- (c) Argentina, Chile, Panama, Peru, and Venezuela
- (d) Bolivia, Ecuador, Panama, Peru, and Uruguay

3. Which among the following is not a Maghreb country?

- | | |
|-------------|----------------|
| (a) Algeria | (b) Mauritania |
| (c) Tunisia | (d) Niger |

4. Which of the following statements about DANA (Depresión Aislada en Niveles Altos) is correct?

- (a) DANA forms during spring when warm Mediterranean waters meet warm air from polar regions.
- (b) Unlike regular storms, DANA can develop independently of typical jet streams.
- (c) DANA is most commonly observed in the summer season across northern Europe Sea.
- (d) None of the above

5. The Horn of Africa is a region located in eastern Africa. Which of the following countries is not typically considered part of the Horn of Africa?

- | | |
|--------------|--------------|
| (a) Ethiopia | (b) Djibouti |
| (c) Eritrea | (d) Kenya |

6. Recently, the Al-Jawf region witnessed heavy snowfall and rainfall for the first time in recorded history. This region is located in;

- | | |
|------------|--------------------------|
| (a) Jordan | (b) Saudi Arabia |
| (c) Oman | (d) United Arab Emirates |

7. Which of the following statements is/are correct about the Chabahar Port?

- 1. It is the only Iranian port with direct access to the Indian Ocean.
- 2. In India's context, Jawaharlal Nehru Port also known as Nhava Sheva port is the closest port to the Chabahar port.

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. Mount Lewotobi, recently seen in the news, is located in which of the following countries?

- (a) Japan (b) Philippines
(c) Indonesia (d) Vietnam

9. Which of the following countries shares borders with the South China Sea?

1. Malaysia 2. Indonesia
3. Philippines 4. Thailand
5. Brunei Darussalam

Select the correct answer using the codes given below.

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

10. Which among the following are the reasons for the Glacial Lake Outbursts?

1. Rising Temperatures 2. Monsoon Rains
3. Development Projects 4. Earthquakes and Landslides

Select the correct answer using the code given below:

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

11. Solomon Islands is an archipelagic state situated in which of the following Ocean?

- (a) Atlantic Ocean (b) Indian Ocean
(c) Pacific Ocean (d) Arctic Ocean

12. The Suez Canal connects which of the following two water bodies?

- (a) Arabian Sea and Red Sea (b) Black Sea and Caspian Sea
(c) Baltic Sea and North Sea (d) Mediterranean Sea and Red Sea

13. Consider the following countries:

1. Venezuela 2. Guyana
3. Brazil 4. Colombia

Which of the following countries shares borders with Suriname?

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

14. 'Lake Kariba' recently seen in the news, is located in which of the following continents?

- (a) South America (b) Europe
(c) Asia (d) Africa

15. Teesta River flows through which of the following Indian States?

1. Assam 2. Sikkim
3. Meghalaya 4. West Bengal

Select the correct answer using the code given below:

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

16. Consider the following countries:

- | | |
|-----------------|-----------|
| 1. Georgia | 2. Iran |
| 3. Turkmenistan | 4. Turkey |
| 5. Uzbekistan | |

Which of the following shares borders with Armenia?

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

17. Which one of the following rivers is nearest to the *Demchok*, a conflicted region between India and China?

- | | |
|-----------------|------------------|
| (a) Indus River | (b) Shyok River |
| (c) Nubra River | (d) Galwan River |

18. The Kurram district, which has recently witnessed sectarian violence, is located in which of the following countries?

- | | |
|--------------|-----------------|
| (a) Pakistan | (b) Afghanistan |
| (c) Iran | (d) Iraq |

19. Baalbek, Tyre and Anjar, recently seen in news, are located in which of the following countries?

- | | |
|-------------|-----------------|
| (a) Lebanon | (b) Afghanistan |
| (c) Israel | (d) Ukraine |

20. Where is the Major Atmospheric Cherenkov Experiment (MACE) telescope located?

- | | |
|-----------------|---------------|
| (a) Tamil Nadu | (b) Ladakh |
| (c) Maharashtra | (d) Karnataka |

21. Consider the following countries:

- | | |
|-----------|------------|
| 1. Libya | 2. Morocco |
| 3. Jordan | 4. Lebanon |
| 5. Israel | |

How many of the above countries are surrounded by the Mediterranean sea?

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

22. With reference to the Baltic Sea, consider the following statements:

- It is located in western Europe, enclosed by Denmark, Finland, and Sweden.
- Its marine environment is protected by the Helsinki Convention through coordinated actions by the bordering countries.

Which of the statements given above is/are correct?

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

23. The Litani River, recently in the news, is the longest river of which of the following countries?

- | | |
|------------|-------------|
| (a) Israel | (b) Iran |
| (c) Syria | (d) Lebanon |

24. Which of the following statements about the Pennaiyar River is correct?
- It is the largest interstate east-flowing river in India.
 - It originates in the Nilgiri Hills of Tamil Nadu.
 - It is known as Dakshina Pinakini in Kannada and Thenpennai in Tamil.
 - Its basin is bounded by the Krishna basin in the south.
25. The Pamban Bridge connects which of the following Indian cities?
- Chennai and Madurai
 - Kochi and Thiruvananthapuram
 - Mandapam and Rameswaram
 - Kolkata and Howrah
26. Which of the following countries does not border the Baltic Sea?
- Denmark
 - Poland
 - France
 - Lithuania

Choose the correct answer using the code given below

- 1 and 3 only
 - 2 and 4 only
 - 3 only
 - 1, 2, and 3
27. Consider the following pairs :

Prominent dark tourism site

- Auschwitz Concentration Camp
- Chernobyl
- Hiroshima Peace Memorial Park

Country

- Austria
- Russia
- Japan

How many of the above pairs are correctly matched?

- Only one pair
- Only two pairs
- All three pairs
- None of the pairs

EXPLANATIONS

1. (d)

Context: Mr. Duma Boko elected as the new President of Botswana.

About Botswana

- It is a land-locked country dominated in geographical terms by the Kalahari Desert.
- It is situated in the Southern African region and about two-thirds of Botswana lies within the Tropics; it is bisected by the Tropic of Capricorn.
- It is bordered by **Zambia** and **Zimbabwe** to the northeast, **Namibia** to the north and west, and **South Africa** to the south and southeast.
- Capital City: Gaborone



2. (b)

Context: India launches updated National Biodiversity Strategy and Action Plan (NBSAP) at COP 16 to the Convention on Biological Diversity (CBD), in Colombia.

About: Colombia

- Colombia is a country in northwestern South America that borders the Pacific Ocean and the Caribbean Sea.
- Neighbouring countries include **Brazil, Ecuador, Panama, Peru, and Venezuela**.
- The geography of Colombia is diverse with flat lowlands and the high Andes Mountains.



3. (d)

Context: Chief of Defence Staff General Anil Chauhan concluded his four-day visit to Algeria, a country in the Maghreb region of North Africa on the Mediterranean coast.

About: Maghreb countries

- In 1989, the five Maghreb countries—**Algeria, Libya, Mauritania, Morocco and Tunisia**—established the Arab Maghreb Union to promote cooperation and economic integration.
- However, even after more than thirty years, there is still a largely untapped potential for regional trade among Maghreb countries.



4. (b)

In News: Catastrophic flash floods in Spain caused havoc mainly attributed to the DANA Phenomenon.

About DANA

- Known in **Spain as DANA** (Depresión Aislada en Niveles Altos) or high-altitude isolated depression, this system can develop independently of typical jet streams, unlike regular storms.
- **Formation Mechanism:** Cold air moves over **warm Mediterranean waters**, causing warm air to **rise quickly**.
 - This forms dense, moisture-filled clouds that can stay in one area, increasing the likelihood of severe flooding.
- DANA mostly occurs in autumn, when summer's warm surface heat meets sudden cold air from polar regions, creating a low-pressure system that remains over a specific region.

5. (d)

Context: A UN report reveals that over 65 million people in the **Horn of Africa** are food insecure.

About the Horn of Africa:

- It is a geographical region falling within the **horn-shaped** part of North Eastern Africa that comprises **four countries** — **Ethiopia, Eritrea, Djibouti** and Somalia.
 - However, there are also broader definitions, the most common of which include all the countries mentioned above, as well as parts or all of **Kenya**, the Sudan and Uganda.
- Part of the **Horn of Africa region** is also known as the **Somali peninsula**; this term is typically used when referring to lands of Somalia and eastern Ethiopia.

6. (b)

Context: Saudi Arabia's Al-Jawf region experienced heavy snowfall and rainfall for the first time in recorded history.

About Al-Jawf Region:

- **Geography:** Al-Jawf is located in the northern part of Saudi Arabia and forms part of the Arabian Desert.
- **Climate:** The region is typically arid, with vast stretches of sandy terrain and a climate that predominantly features scorching summers and mild winters.

7. (a)

Context:

- In a significant move, an Indian delegation met Afghanistan's Defence Minister, offering the use of Chabahar Port in Iran to business groups in Afghanistan.
- Earlier this year, India signed a **10-year contract** with Iran to develop and operate the Chabahar Port which was built with its assistance.

About: Chabahar Port

- **Meaning:** Chabahar is made of Persian words **Chahar** meaning four; and **bahar** meaning spring.
- **Location:** On the Makran Coast of Iran's Sistan-Baluchistan province, next to the **Gulf of Oman** and at the mouth of the **Strait of Hormuz**. It is the **only Iranian port** with direct access to the Indian Ocean.
 - Only about 170 kilometers west of Pakistan's **Gwadar Port**.
 - In India's context, **Kandla Port** in Gujarat is the closest port at around 550 nautical miles, while the distance between Chabahar and Mumbai is about 786 nautical miles.
- **Two terminals:** It comprises two terminals i.e **Shahid Kalantari** and **Shahid Beheshti**.
- **INSTC:** The port is also part of International North-South Transport Corridor (INSTC), a multimodal transport project to connect the **Indian Ocean to Northern Europe**.

8. (c)

Context: In Indonesia, Mount Lewotobi in East Nusa Tenggara province erupted again, spewing a column of ash up to 5,000 meters high and prompting the highest aviation alert.

About: Mount Lewotobi

- Standing at 1,584 meters, **Mount Lewotobi is one of Indonesia's** 127 active volcanoes.
 - Indonesia straddles the so-called "**Pacific Ring of Fire**," an area of high seismic activity where multiple tectonic plates meet.
- Mount Lewotobi is composed of the **two adjacent stratovolcanoes:** Laki-Laki and Perempuan (the "husband and wife"), which lie less than 2 kilometers apart.

9. (d)

Context: Philippine President Ferdinand Marcos Jr. signed two laws aimed at strengthening his country's claims and sovereignty in the South China Sea as tensions persist in the area.

About: South China Sea

- The South China Sea is a strategic body of water bordering **Brunei Darussalam, Malaysia, Indonesia, the Philippines**, Singapore, **Thailand**, Viet Nam and China.
- As one of the busiest trade routes in the world and home to a wealth of marine and mineral resources, the South China Sea holds great economic and geostrategic importance.

10. (d)

A glacial lake is a body of water that **originates from a glacier**. It typically forms at the foot of a glacier, but may form on, in, or under it.

- In case the **boundary around them breaks**, huge amounts of water rush down the side of the mountains, which cause flooding in the downstream areas called **glacial lake outburst floods or GLOF**.

Reasons for the Glacial Lake Outbursts:

- **Rising Temperatures:** The warming climate is causing glaciers to melt more rapidly in the Himalayas, contributing to the formation of new glacial lakes and the expansion of existing ones.
- **Increased Glacier Instability:** The rapid melting and retreat of glaciers lead to the destabilization of the moraines (ridges of rock and debris) that hold back water.
- **Monsoon Rains:** The Indian monsoon season brings intense rainfall to the Himalayan region, which increases the volume of water flowing into glacial lakes.
- **Earthquakes and Landslides:** The Himalayan region is seismically active, and earthquakes trigger landslides or rockfalls into glacial lakes.
- **Development Projects:** In the Himalayan region, there is increasing pressure to develop infrastructure, increasing the risk of landslides.
- **Lack of Monitoring and Preparedness:** Many of the glacial lakes in India are not regularly monitored, especially those in remote areas.

11. (c)

Context: In a groundbreaking discovery, researchers have uncovered the world's largest coral colony in the Solomon Islands.

About the Solomon Islands

- The Solomon Islands, a country in the **Pacific Ocean**, comprises 992 islands of which 147 are inhabited. It lies northeast of Australia and southwest of Hawaii.
- The main Islands of Solomons are volcanic in origin covered with fast flowing rivers and streams.
- **Honiara**, on the north coast of Guadalcanal Island, is Solomon Islands' capital and largest city.



12. (d)

Context: The Suez Canal is one of the busiest waterways in the world through which 12% of global commerce passes.

About:

- The Suez Canal is a **193-km artificial waterway** that connects the **Mediterranean Sea to the Red Sea**, making it the shortest maritime route between Europe and Asia.
 - It was officially opened to ships in **1869**.
- The Canal **does not have locks** and it is essentially a sea-level waterway.

13. (b)

Context: India has sent the first consignment of about 425 metric tonnes of food grains and other edible items to Suriname for its Social Welfare Programme.

About: Suriname

- Officially known as the Republic of Suriname, it is a country in northern South America.
- It is bordered by French Guiana to the east, **Guyana** to the west, **Brazil** to the south and the Atlantic Ocean to the north.
- It is also a member of CARICOM and is considered as a Caribbean country that is not an island.
- At just under 165,000 km, Suriname is the smallest sovereign state in South America.
- **Capital:** Paramaribo



14. (d)

Kariba is the largest man-made lake in the world **by volume built in the 1950s**.

- **Location:** On the border of Zimbabwe and Zambia, in **Southern Africa**.
- It was created by the construction of the Kariba Dam on the Zambezi River.
- Zambia relies on Kariba for more than **80% of its national electricity supply**.

15. (c)

Teesta Valley is named after the **Teesta River**, which flows through it.

- The river originates in the **Tibetan Plateau** and flows **southward**, passing through the Indian states of **Sikkim and West Bengal** before joining the **Brahmaputra River in Bangladesh**.

16. (a)

Context: Armenia has become the **104th member** of the International Solar Alliance.

About: Armenia

- It is a landlocked country.
- **Neighboring Countries** : in the North: **Georgia**; in the East: Azerbaijan; in the South: **Iran**; in the West: **Turkey**.

- **Capital:** Yerevan
- **Highest Mountain Peak:** Aragats (4,090 meters)



17. (a)

In News: Recent developments have highlighted the delicate balance trying to maintain in the relationship between China and India which is complex and multifaceted, marked by cooperation and conflict by both countries.

- **Demchok** is a village and military encampment in the **Indian-administered Demchok sector** that is **disputed between India and China**. It is located in the Leh district of Ladakh at an elevation of 4,200 metres.
- The **Indus River** originates from a glacier near **Bokhar Chu in the Tibetan region** in the Kailash Mountain range near the Mansarovar Lake.
 - In Tibet, it is known as ‘Singi Khamban,’ or the Lion’s Mouth.
- The river flows northwest and **enters the Ladakh region of India at a place called Demchok**.

18. (a)

Context: The Kurram district of Pakistan is witnessing a surge in sectarian violence between Shia vs Sunni sects.

About Kurram:

- It is a district located in **Pakistan’s Khyber Pakhtunkhwa province**.
- Kurram is **adjacent to the Afghan provinces** of Logar and Nangarhar.
- Its strategic location includes border crossings along the **Durand Line**, including the historic **Peiwar Kotal Pass**, a critical route to Kabul.

19. (a)

Context: Cultural professionals have urged the United Nations to take immediate measures to protect Lebanon’s world heritage sites against Israeli attacks.

About:

- Lebanon is home to some of the most iconic **UNESCO World Heritage Sites** like **Baalbek, Tyre, and Anjar**.
 - **Baalbek:** It is situated in eastern Lebanon, near the Syrian border.
 - **Tyre:** It is a port city on Lebanon’s Mediterranean coast.
 - **Anjar:** It is located in the Bekaa Valley.

20. (b)

Context: The Major Atmospheric Cherenkov Experiment (MACE) telescope, inaugurated in **Hanle, Ladakh**.

About:

- It is built collaboratively by Bhabha Atomic Research Centre (BARC), Tata Institute of Fundamental Research (TIFR), and Indian Institute of Astrophysics (IIA).
- Located at around **4.3 km above sea level**, it is the **highest imaging Cherenkov telescope** in the world.

21. (c)

In News: In a significant address at the **10th edition of the MED Mediterranean Dialogue** in Rome, External Affairs Minister S. Jaishankar emphasised the mutual benefits of strengthening ties between India and the Mediterranean region.

- **Mediterranean Region** encompasses the countries surrounded by the **Mediterranean sea that includes:**
 - **Southern Europe** (*Spain, France, Monaco, Italy, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Albania, Greece, Malta, and Cyprus*);
 - **North Africa** (*Egypt, Libya, Tunisia, Algeria, and Morocco*), and
 - **Parts of West Asia** (*Turkey; Syria; Lebanon; Israel and Palestine*).
- **Jordan** is not surrounded by the **Mediterranean sea**.

22. (b)

In News: Sweden has formally asked China to cooperate in explaining the recent rupture of two data cables on the Baltic Seabed in an area where a China-flagged vessel had been sighted.

Statement 1 is not correct

- The **Baltic Sea**, a unique and historically significant **water body in Northern Europe**, is bordered by several countries including **Sweden, Finland, Russia, Estonia, Latvia, Lithuania, Poland, Germany, and Denmark**.

Statement 2 is correct

- Pollution from agricultural runoff, industrial discharges, and untreated sewage has led to eutrophication, causing harmful algal blooms and dead zones where oxygen levels are too low to support marine life.
- Efforts to combat these issues include **international agreements like the Helsinki Convention**, which aims to protect the marine environment of the **Baltic Sea** through **coordinated actions by the bordering countries**.

23. (d)

Context: Israel and Hezbollah have accepted a ceasefire brokered by the U.S. and France, requiring Israel to withdraw from southern Lebanon within two months and Hezbollah to move its forces north of the Litani River.

About: Litani River

- It is the longest and largest river in **Lebanon**, with a length of 170 km.
- The Litani River originates from several springs called **Al-Aleeq Springs**, located at a distance of ten kilometers to the west of the city of Baalbek, at an altitude of one thousand meters.
- Its drainage gradually increases due to the tributaries joining it.



24. (c)

In News: The Supreme Court has directed the Union government to submit a report on the negotiations between Tamil Nadu and Karnataka regarding the sharing of Pennaiyar river water.

About Pennaiyar River

- **Basin Significance:**
 - Second largest interstate east-flowing river basin in India.
- **Bounded by:**
 - North: Palar basin.
 - West and South: Cauvery basin.
 - East: Bay of Bengal.
- **Geographical Spread:**
 - Covers a large area in Tamil Nadu and parts of Karnataka and Andhra Pradesh.
- **Regional Names:**
 - Kannada: Known as Dakshina Pinakini.
 - Tamil: Known as Thenpennai.
- **Origin:** Rises near Nandidurg in Kolar district, Karnataka.

25. (c)

About New Pamban Bridge:

- The bridge is built by **Rail Vikas Nigam Limited** and connects the mainland Indian town of **Mandapam with the pilgrimage island of Rameswaram** in Tamil Nadu.
- The **original Pamban Bridge**, completed in 1913 and began in 1914. The new Pamban Bridge is a state-of-the-art vertical lift bridge, allowing ships to pass underneath.
- The bridge plays a crucial role in connecting the mainland with the **holy island of Rameswaram**, a significant pilgrimage site for Hindus.

Old bridge

89ft Scherzer lifting span, giving 200ft clearance for ferry traffic


> Work began in June 1911, finished by June 1913; Scherzer span was completed between July and Dec 1911

> 6,676ft Pamban channel crossed using 145 spans: 140 of 43ft, one of 44ft, and one of 45ft

> Bridge traffic began on Feb 24, 1914, coinciding with start of Dhanushkodi-Talaimannar ferry service

Manual lifting (two workers at each side were enough to lift using levers); provisions for electrical power were included during construction

COST ₹20 lakh



New bridge

Vertical lift in place of Scherzer rolling span; can be lifted to 56ft parallel to road bridge; 10ft taller than old bridge


> Project sanctioned and inaugurated in 2019 and completed in 2024 with delay caused by Covid-19 pandemic

> Electro-mechanical force with motors for lifting; provision for a double railway line and electrification


> 100 spans of which 99 are 60ft; vertical span is 237ft

COST ₹550 cr

To open in Nov



William Donald Scherzer (1858-1893), an American engineer, invented the Scherzer rolling lift bridge. After graduating in engineering from Zurich Engineering College in 1880, he worked in a zinc manufacturing company in Illinois before joining a railway company in Pittsburgh in 1883, specialising in bridge engineering. He founded his own company as a consulting and contracting engineer for bridges in 1893 but died that same year at the age of 31.



Pamban Island

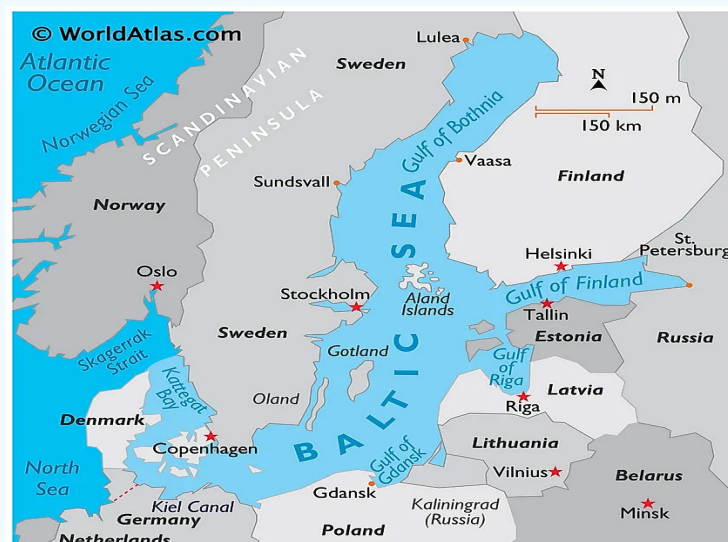
- **Location:** Between India and Sri Lanka, in the Gulf of Mannar.
- **Significance:** The largest island in Tamil Nadu by area.
- **Alternative Name:** Also known as Rameswaram Island.
- **Geographical Features:** Part of a chain that includes Adam's Bridge (Ram Setu) and Mannar Island.
 - Connected to the mainland by the Pamban Bridge.

26. (c)

In News: The incidents of undersea cable cuts in the Baltic Sea have raised geopolitical tensions, in the ongoing Ukraine war.

Baltic Sea:

- The **largest expanse of brackish water in the world**, the semi-enclosed and relatively shallow.
- The Baltic Sea is an **arm of the North Atlantic Ocean**. It is bound by the **Scandinavian Peninsula**, the mainland of Northern Europe, Eastern Europe and Central Europe, and the Danish islands.
- The **Baltic Sea** is artificially linked to the **White Sea** by the **White Sea Canal** and to the **North Sea** by the **Kiel Canal**.
- **Surrounded by countries:** Denmark, Germany, Poland, Lithuania, Latvia, Estonia, Russia, Finland and Sweden.
- It includes the **Gulf of Bothnia**, the **Bay of Bothnia**, the **Gulf of Finland**, the **Gulf of Riga**, and the **Bay of Gdańsk**.



27. (a)

Context: Dark tourism has gained unprecedented popularity in recent times, thanks to the ongoing Ukraine-Russia conflict, rise of social media influencers, and TV shows like The Dark Tourist and Chernobyl.

About:

- Dark tourism, also known as grief tourism or black tourism, involves visiting sites connected to death, tragedy, or something unusual, such as cemeteries, disaster zones, battlefields, memorials, and prisons.
- Prominent dark tourism sites include **Auschwitz Concentration Camp** in **Poland**, **Chernobyl** in **Ukraine**, Ground Zero in USA, the **Hiroshima Peace Memorial Park** in **Japan** and the Cellular Jail, also known as Kala Pani (Black Waters) in the Andaman and Nicobar Islands.
- Dark tourism provides a distinctive chance to learn from history, pay tribute to victims, and gain deeper insights into the past. However, it also raises ethical concerns, including whether such visits commercialize tragedy or show disrespect toward those who experienced it.



GOVERNMENT SCHEMES/ INITIATIVES

1. Which of the following statements about the Namo Drone Didi Scheme is correct?
 - (a) The scheme is implemented under the Ministry of Women and Child Development.
 - (b) It aims to provide drones to Women Self-Help Groups (SHGs) between 2024-2026 for agricultural rental services.
 - (c) Women SHGs receive 100% financial assistance for drone purchases under this scheme.
 - (d) The scheme includes mandatory training for all SHG members on drone manufacturing.
2. With reference to the PM Vidyalaxmi Scheme, which of the following statements is/are correct?
 1. It seeks to provide financial support to meritorious students in their pursuit of higher education.
 2. The scheme will be applicable to both government and private higher educational institutions.

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. With reference to the Biotechnology Research and Innovation Council (BRIC), consider the following statements:
 1. BRIC was established by the Department of Biotechnology under the Ministry of Science and Technology.
 2. It was created by merging various autonomous institutions to promote unified governance in biotechnology research.
 3. One of its primary objectives is to promote international collaborations in biotechnology without focusing on indigenous technology development.

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
4. Which of the following is a key objective of the Sanyukt Vimochan 2024 initiative?
 - (a) Revitalizing ancient cultural heritage practices in India.
 - (b) Encouraging financial inclusion and economic reforms.
 - (c) Advancing India's space exploration mission.
 - (d) Showcasing India's disaster response readiness.
 5. What is the main objective of Project Veer Gatha?
 - (a) To conduct military training for school students.
 - (b) To organize essay writing competitions on freedom fighters.
 - (c) To promote awareness of India's gallantry award winners among students.
 - (d) To teach students about India's historical monuments.

6. With reference to the Atal Innovation Mission (AIM), consider the following statements:
1. Launched in 2015, it is an initiative of the Ministry of Science and Technology.
 2. It aims to foster innovation at the grassroots level by providing support to students, startups, and entrepreneurs.

Which of the statements given above is/are correct?

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

EXPLANATIONS

1. (b)

About Namo Drone Didi scheme:

- **Type:** Central Sector, scheme as part of the DAY-NRLM (Deendayal Antyodaya Yojana - National Rural Livelihood Mission) initiative.
- **Objective:** Empower **women through Self-Help Groups (SHGs)** by providing drones for rental services in agriculture. It aims to support 14,500 SHGs nationwide from 2024-2026. **Hence, Statement (b) is correct.**
- **Ministry:** Ministry of Agriculture & Farmers Welfare
- **Key Features:**
 - **Financial Assistance:** 80% subsidy up to Rs 8 lakh for SHGs to purchase drones.
 - ♦ Additional financing options through the Agriculture Infra Financing Facility (AIF), offering a 3% interest subvention on loans.
 - **Drone Package:** Each package includes essential accessories: spray assemblies, batteries, cameras, chargers, and measurement tools.
 - ♦ Additional batteries and propellers are provided, enabling coverage of up to 20 acres per day.
 - **Training Program:** Each SHG will designate a drone pilot who will undergo 15 days of training in drone operation, focusing on agricultural tasks such as nutrient and pesticide spraying.
 - **Implementation and Oversight:** Lead Fertilizer Companies (LFCs) will execute the scheme at the state level, coordinating with state departments, drone manufacturers, and SHG federations.
 - ♦ A central Empowered Committee will govern the scheme, comprising officials from various departments
 - **IT-Based Drone Portal:** The Drone Portal, an IT-based Management Information System (MIS), will provide end-to-end monitoring, fund disbursement, and real-time tracking of drone usage.

2. (c)

Context: The Union Cabinet approved **PM Vidyalaxmi**, which seeks to provide financial support to meritorious students in their pursuit of higher education.

- The **National Education Policy (NEP) 2020** recommended expanding financial assistance to meritorious students across **both public and private higher education institutions** in India.

PM-Vidyalaxmi Scheme

- The scheme is a **Central Sector Scheme** and facilitates the extension of education loans to students who get admission in the **top 860 quality higher educational institutions (QHEIs) of the nation.**

- **Benefits:** For loans up to ₹7.5 lakh, the student will receive a credit guarantee of 75%, enabling banks to extend education loans to students.
 - The scheme will provide for students with up to **Rs. 8 lakhs annual family income**, for **3% interest subvention** on loans up to **Rs 10 lakh**.
- **The scheme will be applicable** to the QHEIs of the nation, as determined by the National Institutional Ranking Framework (NIRF) rankings, including all HEIs - government and private.
- It will supplement **Pradhan Mantri Uchcharat Shiksha Protsahan (PM-USP) Scheme**.

3. (b)

In News: The Biotechnology Research and Innovation Council (BRIC) has marked its first anniversary since its establishment.

Statement 1 is correct: BRIC was established by the Department of Biotechnology (DBT) under the Ministry of Science and Technology.

Statement 2 is correct: BRIC was formed by subsuming 14 Autonomous Institutions to create a unified governance mechanism.

Statement 3 is not correct: BRIC's objectives include promoting indigenous technology development rather than exclusively focusing on international collaborations.

4. (d)

The Indian Army successfully conducted the Sanyukt Vimochan 2024 in Gujarat.

SANYUKT VIMOCHAN 2024 is a Multilateral Annual Joint Humanitarian Assistance and Disaster Relief (HADR) Exercise

- It showcased India's disaster response readiness and involved various Indian armed forces, disaster management agencies, and foreign delegations.
- The **exercise began** with a **Table Top Exercise (TTX)**, simulating a cyclone scenario in Gujarat's coastal region.

5. (c)

Context: More than 1.76 crore school students from all 36 States and UTs have participated enthusiastically in Project Veer Gatha 4.0.

About:

- Project Veer Gatha, launched under the **Gallantry Awards Portal (GAP)** in 2021, aims to share the courageous acts and life stories of **Gallantry Awardees** with students to foster patriotism and civic values.
- Through this initiative, students have created projects in various formats, including **poems, essays, paintings, and videos**, to honor these gallantry award winners.
- Aligned with the **Republic Day celebrations** each year, Project Veer Gatha has seen great success with its first three editions.
- Under Project Veer Gatha 4.0, **100 winners** will be selected and their felicitation will be done **jointly** by the Ministry of Education and Ministry of Defence during the upcoming Republic Day. Each winner will be awarded a cash prize of **Rs. 10,000**.

6. (b)

Context: The Cabinet approved the continuation of **Niti Aayog's flagship initiative Atal Innovation Mission (AIM)** till March 31, 2028.

About

- Atal Innovation Mission (AIM) is an initiative under NITI Aayog **launched in 2016**.

- **Aim:** To foster innovation at the grassroots level by providing support to students, startups, and entrepreneurs.
- **Key Components:**
 - **Atal Tinkering Labs (ATLs):** School-based innovation hubs that encourage students to explore STEM fields and develop creative skills.
 - **Atal Incubation Centers (AICs):** Centers that support startups by providing infrastructure, mentorship, and funding.
 - **Atal New India Challenges (ANIC):** A platform to support innovation-driven solutions to national challenges.
 - **Atal Community Innovation Centers (ACICs):** Innovation hubs that focus on solving community-specific problems in rural and underserved areas.
 - **Mentor of Change (Mentorship and Partnerships - with Public, Private sector, NGOs, Academia, Institutions):** To enable all the initiatives to succeed AIM has launched one of the largest mentor engagement and management programs “Mentor India – The Mentors of Change”.



DEFENSE/ INTERNAL SECURITY

1. With reference to India's high-profile Defence exercises, consider the following pairs:

<i>Name of Exercise</i>	<i>Participating countries</i>
1. Garud Shakti	Indonesia
2. Vajra Prahar	United Kingdom
3. Sangam	United States

How many of the above pairs are correctly matched?

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

2. With reference to India's high-profile Defence exercises, consider the following pairs:

<i>Name of Exercise</i>	<i>Participating countries</i>
1. VINBAX	Vietnam
2. Cope India	Cambodia
3. SIMBEX	Singapore

How many of the above pairs are correctly matched?

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

3. Which of the following statements about 'Exercise AUSTRALIND' are correct?

1. This is a joint military exercise between India and Austria.
2. Joint sub conventional operations in semi-desert terrain is a goal of this operation.

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. Consider the following statements:

1. Defence Space Agency is an integrated tri-services agency of the Indian Armed Forces headquartered in New Delhi.
2. Antariksha Abhyas-2024 is the inaugural space exercise organized by the Defence Space Agency.

Which of the statements given above is/are correct?

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

5. With reference to the Central Industrial Security Force, consider the following statements:

1. The force is led by a Director General (DG) and operates under the Ministry of Home Affairs of India.
2. It is also responsible for guarding Indian borders.

Which of the statements given above is/are correct?

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

6. With reference to Exercise Sea Vigil, consider the following statements:

1. Exercise Sea Vigil was conceptualized as a national-level coastal defence initiative after the 26/11 Mumbai terror attacks.
2. The exercise covers the entire Indian coastline and Exclusive Economic Zone (EEZ).
3. Exercise Sea Vigil is conducted annually.

Which of the statements given above are correct?

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

7. Consider the following in respect of Indian Ocean Naval Symposium (IONS):

1. Inaugural IONS was held in India in 2015 under the chairmanship of the Indian Navy.
2. IONS is a voluntary initiative that seeks to increase maritime co-operation among navies of the littoral states of the Indian Ocean Region.

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. With reference to the Hypersonic Missiles, consider the following statements:

1. It refers to the missiles having a speed at least five times the speed of sound.
2. France and Japan have advanced hypersonic missile systems.

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. Consider the following statement with reference to Army Tactical Missile System (ATACMS):

1. It is a conventional surface-to-surface artillery weapon system.
2. It is designed to target high-value enemy positions up to 300 km.
3. It is capable of striking targets well beyond the range of existing Army cannons and rockets.

How many of the above statements are correct?

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

10. With reference to the intercontinental ballistic missile (ICBM), consider the following statements:

1. It has a range of more than 5,500 kilometers, enabling it to strike targets in distant countries.
2. It follows a straight trajectory usually equipped with nuclear warheads.

Which of the statements given above is/are correct?

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

11. With reference to the Chemical Weapons Convention (CWC), consider the following statements:
1. It came into force in 1997, and presently has 193 States Parties.
 2. It promotes international cooperation in the field of chemical weapons.
 3. India is not an original signatory to the Convention.

How many of the statements given above are correct?

- (a) Only one (b) Only two
(c) All three (d) None
12. With reference to the K-4 Ballistic Missile, consider the following statements:
1. It is a solid-fuelled nuclear capable ballistic missile developed by Bharat Dynamics Limited.
 2. It has a range of up to 3,500 km, enabling it to strike high-value targets across most of China, including Beijing.

Which of the statements given above is/are correct?

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

EXPLANATIONS

1. (b)

Context: The 9th edition of **India-Indonesia Joint Special Forces Exercise GARUD SHAKTI** commenced at Jakarta, Indonesia.

Exercise GARUD SHAKTI: The **first edition** was conducted in the year **2012** in India.

Aim: To acquaint both the sides with each other's operating procedures, enhance mutual understanding, cooperation and interoperability between the Special Forces of both armies.

Exercise VAJRA PRAHAR:

- **Initiated in 2010**, the exercise will enhance combined capabilities in executing joint Special Forces Operations in desert/ semi desert environment.
- **Aim** of Exercise VAJRA PRAHAR is to promote military cooperation between **India and the US** through enhancement of interoperability, jointness and mutual exchange of special operations tactics.

Other bilateral military exercises between India-USA:

- Yudh Abhyas (Army), Cope India (Air Force), Tiger Triumph (Tri-Service) and **Sangam** (Naval Special Forces).

2. (b)

Context: The 5th Edition of Vietnam Indian Bilateral Army Exercise **"VINBAX-2024"** commenced at Ambala, India.

About:

- Instituted in **2018**, exercise VINBAX is an annual training event conducted alternatively in **India and Vietnam**.
- Aim of the exercise is to foster collaborative partnership, promote inter-operability and share best practices between the two sides under Chapter VII of United Nations Charter on Peace Keeping Operations.

SIMBEX

- **Singapore India Maritime Bilateral Exercise (SIMBEX)**, which began as 'Exercise Lion King' in 1994, holds the distinction of being the longest continuous naval **exercise** that the Indian Navy has with any other country.

Military Exercises involving India-USA:

- Bilateral Military Exercises: Vajra Prahar (Army Special Forces), Yudh Abhyas (Army), **Cope India (Air Force)**, Tiger Triumph (Tri-Service) and Sangam (Naval Special Forces).

3. (b)

Context: The 3rd edition of joint military Exercise AUSTRAHIND commenced at Foreign Training Node, Maharashtra (India).

About:

- Exercise AUSTRAHIND, **started in 2022**, is an annual event conducted alternatively in India and Australia.
- **Aim of Exercise AUSTRAHIND** is to promote military cooperation between India and Australia through enhancement of interoperability in conduct of joint sub conventional operations in **semi-urban environment** in semi-desert terrain under **Chapter VII of the UN mandate**.

4. (b)

Context: The **Defence Space Agency** is conducting the 'Antariksha Abhyas – 2024' to war-game the growing threats from and to Space Based Assets and Services.

About:

- The Defence Space Agency is an **integrated tri-services agency** of the Indian Armed Forces **headquartered in Bengaluru, Karnataka**.
- The agency is tasked with operating the space-warfare and Satellite Intelligence assets of India.

Exercise Antariksha Abhyas:

- It is a **first of its kind exercise** being conducted and is expected to help secure national strategic objectives in space and integrate India's space capability in military operations.
- In addition, it intends to identify vulnerabilities in conduct of operations in the event of denial or disruptions of space based services.

5. (a)

Statement 1 is correct: It is an armed force established under the **Central Industrial Security Force Act, 1968**.

- The force is led by a **Director General (DG)** and operates under the Ministry of Home Affairs of India.

Statement 2 is not correct: It is **not** responsible for guarding Indian borders.

- CISF is providing security to the strategic establishment, including the Department of Space, the Department of Atomic Energy, the Airports, the Delhi Metro, the ports, the historical monuments and the basic areas of the Indian economy such as petroleum and natural gas, electricity, coal, steel and mining.
 - It also provides counter-terrorism security to various sensitive facilities, as well as private sector operations.
- Presently, CISF is also providing security to the protected persons classified as Z Plus, Z, X, Y.

6. (a)

Statement 1 is correct: Exercise Sea Vigil was conceptualized after the 26/11 Mumbai terror attacks to bolster coastal defence.

Statement 2 is correct: The exercise covers the entire 11,098 km coastline and the 2.4 million sq. km Exclusive Economic Zone (EEZ) and involves the fishing community and coastal population.

Statement 3 is not correct: Exercise Sea Vigil is not conducted annually; it is a periodic exercise coordinated by the Indian Navy and acts as a precursor to TROPEX, which is conducted biennially.

7. (b)

- The inaugural Indian Ocean Naval Symposium (IONS) was held in 2008 in India, not in 2015. So, **statement 1 is not correct.**
- IONS is indeed a voluntary initiative aimed at enhancing maritime cooperation among the navies of the littoral states in the Indian Ocean Region (IOR). **Statement 2 is correct.**

8. (a)

Statement 1 is correct: The term “Hypersonic” refers to a **speed at least five times the speed of sound** (also called Mach-5) i.e. **around a mile per second.**

- These missiles are also **more maneuverable**, which allows them to more easily evade air defence systems.

Statement 2 is not correct: The Defence Research and Development Organisation (DRDO) conducted a **successful flight test of a long range hypersonic missile.**

- This achievement places India among a select group of nations—alongside the United States, Russia, and China—that possess advanced hypersonic technology.
 - France, Germany, Australia, Japan, Iran, and Israel, are also pursuing projects to develop hypersonic missile systems.

9. (c)

In News: Russia’s Ministry of Defense said that Ukraine used six ATACMS.

All the Statements are correct : ATACMS is a long-range, guided missile that gives commanders the immediate firepower to shape the battlespace. Each ATACMS missile is packaged in a look-alike MLRS launch pod and fired from the MLRS family of launchers.

ATACMS Specifics:

- Improved guidance package with Global Positioning System
- Carries a WDU18, 500-lb class blast fragmentation warhead
- Maximum range is 300 km
- The Army Tactical Missile System (ATACMS) is a conventional surface-to-surface artillery weapon system capable of striking targets well beyond the range of existing Army cannons, rockets and other missiles. ATACMS missiles are fired from the HIMARS and MLRS M270 platforms.

10. (a)

Statement 1 is correct: ICBM is a type of long-range missile designed to carry nuclear or conventional warheads.

- **Range:** More than 5,500 kilometers (about 3,400 miles), enabling them to travel across oceans and strike targets in distant countries.
- **Speed:** It can reach a speed of up to 24,000 km/h (about 15,000 mph).

Statement 2 is not correct: Payload: ICBMs are **usually equipped with nuclear warheads**, but some may carry conventional warheads or other types of payloads.

- A ballistic missile follows a **parabolic trajectory** with a boost, mid-course and terminal stage.
 - The highest point where the missile reaches is called **apogee** and for ICBMs, it is over 4,000 km.

11. (b)

Statement 1 and 2 are correct: Chemical Weapons Convention (CWC) came into force in **1997**, and presently has **193 States Parties**.

- Its **Secretariat in The Hague**, is the implementing body.
- The CWC promotes **international cooperation** in the field of chemical weapons, including research and development of peaceful uses of chemistry.

Statement 3 is not correct: India is an original signatory to the Convention.

- **National Authority Chemical Weapons Convention (NACWC)** is the national authority responsible for implementing the Convention in India.

12. (b)

Context: The Indian Navy successfully tested the K-4 ballistic missile from the **INS Arighaat submarine**, enhancing India's nuclear deterrence capabilities.

About K-4 ballistic missile:

- **Development:** K-4 or **Kalam-4**, code-named after former President Dr. APJ Abdul Kalam, is a **solid-fuelled nuclear capable ballistic missile** developed by **Defence Research and Development Organisation (DRDO)**.
- **Range:** With a range extending to **3,500 km**, it can target high-value assets across most of China, including **Beijing**, as well as any location in Pakistan.
- **Nuclear triad:** K-4 will strengthen India's weakest leg of the **nuclear triad**. The land and air vectors, with the Agni ballistic missiles and fighter jets with nuclear gravity bombs, are relatively more robust.



INTERNATIONAL RELATIONS

1. Which of the following statements regarding BRICS is correct?
 - (a) BRICS was founded in 2010 as an alliance of developed economies.
 - (b) BRICS has a permanent headquarters in New Delhi.
 - (c) BRICS was founded as a coalition to strengthen economic ties and political influence among emerging economies.
 - (d) BRICS exclusively focuses on economic cooperation among African nations.
2. What is the primary function of the ARIN-AP network?
 - (a) To facilitate the freezing, tracing, and confiscation of criminal assets in the Asia-Pacific region.
 - (b) To track illegal wildlife trade across the Asia-Pacific region.
 - (c) To monitor human trafficking operations in Southeast Asia.
 - (d) To combat terrorism financing exclusively within South Asia.
3. Consider the following countries:
 1. Brunei
 2. Fiji
 3. Indonesia
 4. Thailand
 5. Vietnam

How many of the above countries comprise the *Indo-Pacific Economic Framework for Prosperity (IPEF)*?

 - (a) Only two
 - (b) Only three
 - (c) Only four
 - (d) All five
4. With reference to the International Solar Alliance, consider the following statements:
 1. It was jointly launched by India and France in 2015.
 2. It is headquartered in Paris.
 3. It has a mission to unlock US\$1 trillion of investments in solar by 2030.

How many of the statements given above are correct?

 - (a) Only one
 - (b) Only two
 - (c) All three
 - (d) None
5. With reference to the *Indus Waters Treaty (IWT)*, consider the following statements:
 1. It is an agreement between India and Pakistan brokered by the International Monetary Fund (IMF).
 2. It allocates the waters of the Ravi, Beas, and Sutlej to India for unrestricted use.

Which of the statements given above is/are correct?

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

6. Which of the following statements about the membership of the International Seabed Authority (ISA) is correct?
- All member states of the United Nations are members of ISA.
 - All State Parties to the United Nations Convention on the Law of the Sea (UNCLOS) are automatically members of ISA.
 - ISA membership is restricted to countries engaged in deep-sea mining.
 - Only developing countries are allowed to participate in ISA's decision-making processes.
7. The 'Wilmington Declaration', sometimes appeared in the news, focusing on sustainable energy solutions, particularly high-efficiency cooling systems, adopted jointly by:
- BRICS Nations
 - QUAD Nations
 - Association of Southeast Asian Nations (ASEAN)
 - Shanghai Cooperation Organisation (SCO)
8. Consider the following statements about the Global Energy Efficiency Alliance (GEEA):
- The alliance was launched at COP29 in Azerbaijan.
 - Its primary objective is to double global renewable energy generation by 2030.
 - The alliance focuses on enhancing energy efficiency in African nations.
- Which of the statements given above is/are correct?
- 1 and 2 only
 - 1 and 3 only
 - 2 and 3 only
 - 1, 2, and 3
9. With reference to the CARICOM (Caribbean Community), consider the following statements:
- It was formed in 1973 with the signing of the Treaty of Chaguaramas.
 - The member states include both developing and developed countries.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
10. With reference to the Codex Alimentarius Commission (CAC), consider the following statements:
- 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).
 - India is not a member state of CAC.
- How many of the statements given above are correct?
- Only one
 - Only two
 - All three
 - None
11. With reference to the 'Bilateral Investment Treaty (BIT)', consider the following statements:
- It sets the terms and conditions for private investment by nationals and companies of one country in another.
 - It is a part of the International Investment Agreements (IIAs) under the United Nations Conference on Trade and Development (UNCTAD).

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. What are the key features of the recent Memorandum of Understanding (MoU) signed between the Reserve Bank of India (RBI) and the Maldives Monetary Authority (MMA)?

1. It encourages the use of Indian Rupee (INR) and Maldivian Rufiyaa (MVR) in current account transactions only.
2. It allows exporters and importers to invoice and settle payments in their respective domestic currencies.

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 are a member of the European Free Trade Association (EFTA)?

1. Poland
2. Iceland
3. France
4. Norway

Select the correct answer using the code given below:

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

14. Which of the following best describes the role of the International Cooperative Alliance (ICA)?

- (a) A regulatory body for cooperatives worldwide.
- (b) A global organization uniting and representing cooperatives.
- (c) A financial institution for funding cooperative projects.
- (d) A political organization advocating for cooperative governance.

15. What was the main objective of UN Security Council Resolution 1701?

- (a) To settle the war between Russia and Ukraine
- (b) To end hostilities between Hezbollah and Israel
- (c) To establish a new international peacekeeping force
- (d) To promote economic development in Lebanon

16. Which of the following statements about OPEC+ is correct?

- (a) All member countries are part of the Organization of the Petroleum Exporting Countries (OPEC).
- (b) OPEC+ was formed in the early 20th century.
- (c) The primary goal of OPEC+ is to maximize oil production.
- (d) OPEC+ includes both OPEC and non-OPEC oil-producing countries.

EXPLANATIONS

1. (c)

BRICS is an international coalition initially formed by Brazil, Russia, India, China, and later South Africa to represent the interests and cooperation of emerging economies. It was established in **2009** to enhance economic ties and political influence on the global stage, providing a counterbalance

to traditionally Western-dominated institutions like the World Bank and International Monetary Fund (IMF).

- BRICS initially included Brazil, Russia, India, and China. South Africa joined in 2010, completing the acronym.
- In 2024, BRICS expanded to include Ethiopia, Iran, Egypt, and the United Arab Emirates, reflecting the coalition's growing influence.

2. (a)

About ARIN-AP:

- ARIN-AP, with 28 member jurisdictions and nine observers, enables cross-border collaboration for asset tracing, freezing, and confiscation through a network of contact points.
- It is part of the Global CARIN Network dedicated to combating the proceeds of crime across Asia-Pacific.
- It facilitates intelligence-sharing, helping agencies trace and recover assets linked to crimes across borders.
- India is set to assume the ARIN-AP presidency and host its Annual General Meeting in 2026, reinforcing its leadership in asset recovery
- This role will enhance India's involvement in ARIN-AP's decision-making and administrative processes, supporting global asset recovery efforts.

3. (d)

In News: Recently, India along with other IPEF Ministers welcomed the upcoming entry into force of the Clean Economy Agreement, Fair Economy Agreement, and the Overarching Agreement on IPEF, and emphasised the significant opportunities to further deepen economic cooperation and deliver concrete benefits through ongoing collaboration.

- **Indo-Pacific Economic Framework for Prosperity (IPEF)** was launched in 2022 at Tokyo, Japan, comprising **14 countries** – *Australia, Brunei, Fiji, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, Vietnam and USA*, which collectively account for **40% of global GDP and 28% of global trade**.
- It seeks to strengthen economic engagement and cooperation among partner countries with the goal of advancing growth, economic stability and prosperity in the region.

4. (b)

Statement 1 is correct: It is an international organisation with **120 Member and Signatory countries**.

- **Established:** By Prime Minister Narendra Modi and President of France Francois Hollande in 2015.

Statement 2 is not correct: Headquarter: First international intergovernmental organisation to be headquartered in **India**.

Statement 3 is correct: Mission: To unlock US\$1 trillion of investments in solar by 2030.

- Reducing the cost of the technology and its financing.

5. (b)

In News: Recent geopolitical and environmental changes have prompted calls for Indus Waters Treaty (IWT)'s modification and exploring the complexities and challenges involved in renegotiating the IWT, considering the perspectives of both nations.

Statement 1 is not correct: Indus Waters Treaty (IWT) is a landmark agreement between India and Pakistan, was **signed in 1960, brokered by the World Bank** (not by the International Monetary Fund) to manage and share the waters of the Indus River system.

Statement 2 is correct: The treaty allocates the waters of the six rivers of the Indus basin between the two countries:

- **Eastern Rivers (Ravi, Beas, Sutlej):** Allocated to India for **unrestricted use**.
- **Western Rivers (Indus, Jhelum, Chenab):** Allocated to Pakistan, with India allowed limited use for agriculture, domestic purposes, and non-consumptive uses like hydropower generation.

6. (b)

Union Minister of State of Earth Sciences felicitated trainees nominated by the **International Seabed Authority**.

About International Seabed Authority:

- **Establishment:** Formed under the 1982 United Nations Convention on the Law of the Sea (UNCLOS) and the 1994 Agreement for Part XI implementation, the ISA was formally created on November 16, 1994, achieving full operational autonomy by June 1996.
- **Headquarters:** Located in Kingston, Jamaica.
- **Membership:** As per Article 156(2) of UNCLOS, all State Parties to UNCLOS are **automatically members of the ISA**. As of September 2, 2024, **ISA has 170** members (169 countries and the European Union).
- **Purpose:** ISA is responsible for regulating and controlling mineral-related activities in “the Area” (the international seabed) for the benefit of humankind. It ensures environmental protection from deep-seabed mining activities.
- **Jurisdiction:** The ISA oversees the international seabed area beyond national boundaries, covering the seabed, ocean floor, and subsoil, which constitutes about 50% of the world’s ocean area.

7. (b)

Context: Recently, the **Quad Nations (Australia, India, Japan, and the United States)** issued the **Wilmington Declaration**, emphasising their commitment to sustainable energy solutions, particularly high-efficiency cooling systems.

- It aligns with the earlier joint statement by India and the United States, which outlined a roadmap for building resilient and secure global clean energy supply chains, with a special focus on clean cooling technologies.

8. (b)

Statement 1 is correct: The GEEA was officially announced at COP29, held in Azerbaijan. This global initiative is led by the UAE and focuses on promoting energy efficiency on a global scale.

Statement 2 is not correct: The GEEA’s primary goal is not focused on renewable energy generation but rather on doubling global energy efficiency rates by 2030. Energy efficiency involves reducing energy consumption while maintaining the same level of productivity, thereby cutting emissions and minimizing resource use. Renewable energy generation is a separate focus of other global initiatives.

Statement 3 is correct: One of the key focus areas of the GEEA is supporting African nations in adopting energy-efficient practices. This includes providing financial aid and advanced technologies to help these countries overcome infrastructural and resource challenges, thereby improving their overall energy efficiency.

9. (a)

Statement 1 is correct: Established: It was formed in **1973** with the signing of the **Treaty of Chaguaramas**.

Statement 2 is not correct: Members: Caricom is a grouping of **21 countries** including 15 member states and six associate members.

- From the Bahamas in the north to Suriname and Guyana in South America, CARICOM comprises states that are **considered developing countries**.
- **Demography:** It is home to approximately sixteen million citizens, 60 percent of whom are under the age of 30.
 - They belong to the main ethnic groups of Indigenous Peoples, Africans, Indians, Europeans, Chinese, Portuguese and Javanese.
- **Objectives Of CARICOM:** The four pillars of CARICOM are economic integration, foreign policy coordination, human and social development, and security.

10. (b)

Statement 1 and 2 are correct: Codex Alimentarius Commission (CAC) is an **intergovernmental food standards body**, set up in **1963**. The term “Codex Alimentarius” is Latin for “**Food Code.**”

- 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.

Statement 3 is not correct: Members: Currently, 189 members (188 UN member countries and the European Union).

- The Commission meets in regular session once a year alternating between Geneva and Rome.
- India became a member in **1964**.

11. (c)

In News: The recent **Bilateral Investment Treaty (BIT)** between **India and the United Arab Emirates (UAE)** marks a significant shift in India’s approach to investment treaties which **replaces the 2014 India-UAE investment treaty**, reflecting India’s evolving stance on balancing investment protection with the state’s sovereign right to regulate.

Statement 1 is correct

- **Bilateral Investment Treaty (BIT)** is an **agreement between two countries** that sets the terms and conditions for private investment by nationals and companies of one state in another.

Statement 2 is correct

- It is a part of the **International Investment Agreements (IIAs)** under the United Nations Conference on Trade and Development (**UNCTAD**).
- It is expected to improve investor confidence, increase foreign investments and overseas direct investment opportunities, and have a positive impact on employment generation.

12. (b)

In News : The Reserve Bank of India (RBI) and the Maldives Monetary Authority (MMA) signed a Memorandum of Understanding (MoU) to promote the use of local currencies in cross-border transactions.

Statement 1 is not correct : **MoU** encourages the use of the Indian Rupee (INR) and Maldivian Rufiyaa (MVR) in:

- **Current account transactions.**
- **Permissible capital account transactions.**
- **Other economic or financial transactions agreed upon by both countries.**

Statement 2 is correct : Exporters and importers can invoice and settle payments in their respective domestic currencies (INR and MVR).

- Facilitates trading of the INR-MVR pair in the foreign exchange market.

13. (b)

Commerce Secretary Sunil Barthwal has visited Norway to discuss the possibility of an early implementation of a Trade and Economic Partnership Agreement (TEPA) between India and the European Free Trade Association (EFTA).

The European Free Trade Association (EFTA) is the intergovernmental organisation of **Iceland, Liechtenstein, Norway and Switzerland**.

It was set up in 1960 by its then seven Member States for the promotion of free trade and economic integration between its members.

14. (b)

In News: The International Cooperative Alliance (ICA) Global Cooperative Conference 2024 is scheduled to take place from November 25 to 30, 2024, at Bharat Mandapam in New Delhi, India.

International Cooperative Alliance (ICA)

- **Founded:** In 1895 in London.
- **Purpose:** A global organization that unites, represents, and serves cooperatives worldwide.
 - Promotes cooperative values, principles, and practices.
- **Membership:** Comprises 306 member organizations from 105 countries.
- **Role:** Serves as the apex body of the global cooperative movement.
 - Provides a platform for collaboration, knowledge sharing, and coordinated action.
 - Advocates for cooperatives as tools for economic development, social equity, and sustainability.
- **Focus Areas:** Strengthening cooperative governance and networks.
 - Facilitating global trade and partnerships among cooperatives.
 - Addressing challenges such as poverty, inequality, and climate change through cooperative solutions.

15. (b)

Israel and Lebanon entered into a ceasefire after Israel's security cabinet approved a US-backed proposal to end the 13-month-long conflict.

UN Resolution 1701 was passed by the **UN Security Council in 2006**, calling for a permanent ceasefire between Israel and Hezbollah, and the creation of a buffer zone.

- It sought the full withdrawal of Israeli forces from southern Lebanon and the disarmament of Hezbollah.
- The resolution aims to end hostilities between Hezbollah and Israel and establish a permanent ceasefire.

16. (d)

About: OPEC and OPEC+

- The Organization of the Petroleum Exporting Countries (OPEC) was established in 1960 at the Baghdad conference. It is headquartered in Vienna, Austria.
- Currently, it has 12 members including Iran, Iraq, Kuwait and Venezuela.

OPEC+

- OPEC+ comprises OPEC members and other major oil producers (such as Kazakhstan, South Sudan).
- The OPEC+ was formed in **2016** after the adoption of the 'Algiers Accord' and 'Vienna Agreement'.
- OPEC+ represents around 40% of world oil production and its main objective is to **regulate** the supply of oil to the world market.



SCIENCE & TECHNOLOGY

1. With reference to the Tuberculosis, consider the following statements:

1. It is caused by the bacteria *Mycobacterium tuberculosis*.
2. It only affects the lungs in the body.
3. It is preventable but not curable.

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

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

2. LiDAR technology, recently seen in the news, is primarily used for

- (a) Examining the surface of the Earth.
- (b) Monitoring air quality in urban areas.
- (c) Analyzing ocean currents and wave patterns.
- (d) Forecasting weather patterns.

3. The Sputnik 2 mission, recently seen in the news, was aimed to

- (a) Study the effects of space travel on a living organism
- (b) Track methane emissions at a global scale.
- (c) Study the flow of particles and ionized gas.
- (d) Study the moon's surface material.

4. Aditya-L1 will be positioned at the L1 Lagrange point. Which of the following statements best describes this point?

- (a) A location in space where the gravitational pull of Earth and the Moon is balanced.
- (b) A point between the Earth and Sun where gravitational forces balance.
- (c) A point between the Earth and Mars for constant communication with Mars missions.
- (d) A location beyond Pluto where spacecraft experience minimal gravitational interference.

5. Consider the following statements regarding Gravitational Energy Storage (GES):

1. GES stores energy by converting electrical energy into gravitational potential energy through lifting heavy masses.
2. GES is primarily suitable for short-term energy storage rather than grid stabilization.
3. Concrete blocks, water, and compressed earth blocks are commonly used as weights in GES systems.

Which of the statements given above are correct?

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

6. LignoSat, recently seen in the news, aims to
- Land the first woman on the moon.
 - Advance the understanding of Earth's ocean and atmosphere interactions.
 - Test the viability of wood as a sustainable material in space exploration.
 - Explore the Saturn system, including its rings and moons.
7. Sir C.V. Raman was honored with the Nobel Prize in Physics and later awarded the Bharat Ratna on his discovery of Raman Effect, what does this Raman Effect demonstrate?
- Light changes color when it passes through certain gases.
 - A fraction of light scattered by a liquid has a different color.
 - Light intensity increases when reflected off a solid surface.
 - Light waves bend when passing through magnetic fields.
8. Which of the following statements is **not correct** regarding Allulose?
- It is naturally found in certain foods like wheat, raisins, and figs.
 - It provides around 70% of the sweetness of regular sugar.
 - It has a bitter aftertaste, similar to aspartame.
 - High production costs limit its use as a commercial sweetener.
9. How does a lightning rod help protect a structure from damage during a lightning strike?
- By deflecting lightning away from the building.
 - By storing the electric charge in a capacitor.
 - By attracting lightning and safely channeling it to the ground.
 - By increasing the electric resistance of the building.
10. 'Coeliac disease' is related to which of the following?
- | | |
|---------------------------------|---------------------|
| (a) High Sugar Consumption | (b) Viral Infection |
| (c) Allergic Reaction to Gluten | (d) Nervous System |
11. *Thrombotic Thrombocytopenic Purpura (TTP)* is a disorder related to which of the following?
- | | |
|-----------|-----------|
| (a) Blood | (b) Skin |
| (c) Lungs | (d) Bones |
12. Lead, ingested or inhaled, is a health hazard. After the addition of lead to petrol has been banned, what still are the sources of lead poisoning?
- | | |
|-------------------|----------------------------|
| 1. Smelting units | 2. Pens and pencils |
| 3. Paints | 4. Hair oils and cosmetics |
- Select the correct answer using the codes given below:
- | | |
|---------------------|-------------------|
| (a) 1, 2 and 3 only | (b) 1 and 3 only |
| (c) 2 and 4 only | (d) 1, 2, 3 and 4 |
13. Which of the following was the first planet discovered with the aid of a telescope?
- | | |
|-------------|-------------|
| (a) Mercury | (b) Mars |
| (c) Uranus | (d) Jupiter |
14. Which of the following statements is **not correct** regarding measles?
- It is a highly contagious disease caused by bacteria.
 - It can affect anyone but is most common in children.

- (c) Its symptoms include a high fever, cough, runny nose and a rash all over the body.
- (d) This disease can be prevented with vaccination.

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

1. It is transmitted by parents carrying a defective 'gamma globin' gene (GGB).
2. The RBCs become hard and sticky and look like a C-shaped farm tool called a sickle.

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 GSAT-20, consider the following statements:

1. GSAT-20 is designed to provide internet connectivity to remote areas in India.
2. It will be launched using India's LVM-3 rocket from Sriharikota.

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 India's satellite launch vehicles, consider the following statements:

1. PSLVs launch the satellites useful for Earth resources monitoring whereas GSLVs are designed mainly to launch communication satellites.
2. Satellites launched by PSLV appear to remain permanently fixed in the same position in the sky, as viewed from a particular location on Earth.
3. GSLV Mk III is a four-staged launch vehicle with the first and third stages using solid rocket motors, and the second and fourth stages using liquid rocket engines.

Which of the statements given above is/are correct?

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

18. Which of the following statements is **not correct** regarding chikungunya?

- (a) It is a viral disease transmitted by Aedes mosquitoes.
- (b) Chikungunya is found in tropical and subtropical regions.
- (c) The disease is not transmitted from one person to another.
- (d) None of the above.

19. With reference to the Thai Sacbrood Virus, consider the following statements:

1. It is a highly contagious viral disease that primarily affects Asiatic honey bees.
2. It causes larvae to turn yellow, then black, and develop a sac-like appearance due to incomplete pupation.

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 statements is **not correct** regarding Polio (poliomyelitis)?

- (a) It is a highly contagious viral disease.
- (b) It primarily affects children under the age of five.
- (c) It does not spread via respiratory droplets from coughing or sneezing.
- (d) There is no cure for polio, it can only be prevented.

21. With reference to the Nafithromycin, consider the following statements:
1. It is India's first indigenously developed antibiotic aimed at combating antimicrobial resistance (AMR).
 2. It is designed to treat Community-Acquired Bacterial Pneumonia (CABP) caused by drug-resistant bacteria.

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. GQ-RCP, a new diagnostic technology, recently seen in the news, is related to which among the following?
- (a) Detection of HIV genome (b) Detection of bacterial infections
(c) Identification of cancer cells (d) Diagnosis of genetic disorders

23. With reference to the Indian National Space Promotion and Authorisation Centre (IN-SPACe), consider the following statements:

1. It facilitates the participation of private companies in space activities, excluding building launch vehicles and satellites.
2. It functions as an autonomous agency in the Department of Science and Technology.

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 Proba-3 Space mission, consider the following statements:
1. It is a space mission launched by Roscosmos or the Russian Space Agency.
 2. The mission is launched to study the far side surface of the moon through a satellite.

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. Which of the following options is correct regarding ovarian cancer?
- (a) It originates in the peritoneum.
(b) It is marked by abnormal cell growth.
(c) It comprises epithelial and nonepithelial ovarian malignancies.
(d) All of the above

26. Consider the following statements:

1. The basic building blocks of plastics are monomers, which join together to form polymers through polymerization.
2. Microplastics are plastics ranging between five- ten millimetres in diameter.

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
27. With reference to Genetically Modified crops, consider the following statements:
1. Crops that have undergone genetic engineering processes to alter their DNA are referred to as genetically modified crops.

2. BT Cotton and GM Mustard are the only two genetically modified crops commercially grown 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

28. Which of the following statements is **not correct** regarding Fentanyl?

- (a) It is a synthetic opioid drug used to treat severe pain.
(b) It is a medication with no risk of addiction or dependency.
(c) It is approximately 100 times more potent than morphine.
(d) For Americans, it is now the leading cause of death among people aged 18 to 45.

EXPLANATIONS

1. (b)

Statement 1 is correct: Tuberculosis (TB) is an **infectious disease** that most often affects the lungs and is caused by the **bacteria Mycobacterium tuberculosis**.

Statements 2 and 3 are not correct: Symptoms: prolonged cough (sometimes with blood), chest pain, weakness, fatigue, weight loss, fever, night sweats.

- While TB usually affects the lungs, it also affects the kidneys, brain, spine and skin.
- **Treatment:** It is **preventable and curable** with antibiotics.

2. (a)

Context: Scientists have detected a **lost Mayan city**, hidden for centuries by the dense Mexican jungle, using LiDAR.

About:

- **LiDAR, or Light Detection and Ranging**, is a remote sensing technology that uses light in the form of a pulsed laser to measure ranges of a sensor, usually mounted aboard an aircraft.
 - Data is used to create **high-resolution 3-D models** of ground elevation.
- **Working:** LiDAR instrumentation comprises **a laser, a scanner, and a GPS receiver**.
 - The rapidly firing laser travels to the ground where it hits vegetation, building, and various topographic features.
 - This light is reflected or scattered, and recorded by the LiDAR sensor.
- **Significance:** LiDAR is used to generate precise, three-dimensional information about the **shape of the Earth and its surface characteristics**.

3. (a)

Context: November 3 marks 67 years since the Soviet Union sent Laika the dog to orbit the Earth on its Sputnik 2 mission.

About:

- Sputnik 2 was launched on a Sapwood SS-6 8K71PS launch vehicle on November 3, 1957.
- Before humans went to space, there were concerns about their ability to survive long periods of weightlessness.
- The **Sputnik 2 mission** ended up providing scientists with the first data on the behaviour of a **living organism** orbiting in the space environment.
- Four years later, **Yuri Gagarin** became the first human to orbit earth.

4. (b)

Lagrange's points are positions in space where the gravitational forces of two large bodies, such as the Earth and the Sun, balance the centripetal force felt by a smaller object. These points serve as "parking spots" in space, allowing spacecraft to maintain a stable position with minimal fuel consumption. Among these, L1 is particularly significant for solar observations. It lies approximately 1.5 million kilometers from Earth towards the Sun, providing an uninterrupted view of our star. The strategic placement of Aditya L1 at this point ensures continuous solar monitoring without the hindrance of occultations or eclipses. This uninterrupted view is essential for studying various aspects of the Sun, including its photosphere, chromosphere, and corona.

5. (b)

Statement 1 is correct: Gravitational Energy Storage (GES) is a technology that utilizes the potential energy of gravity to store and release energy. GES systems lift heavy masses to store energy, which can then be released by lowering the masses to generate electricity.

Statement 2 is not correct: GES is particularly suitable for long-duration energy storage, making it ideal for grid stabilization and balancing intermittent renewable energy sources like solar and wind.

Statement 3 is correct: Concrete blocks, water, and compressed earth blocks are commonly used as weights in GES systems.

6. (c)

Context: Japan has launched **LignoSat**, the world's first wooden satellite into space to prove that **wood is a space-grade material**.

About: LignoSat

- LignoSat, developed by **Kyoto University** and **Sumitomo Forestry Co.** is scheduled to orbit the Earth for six months.
- Named after the **Latin word** for "wood", LignoSat is made of **honoki**, using a traditional Japanese crafts technique without screws or glue.
- The satellite will measure how wood endures the **extreme environment of space**, where temperatures fluctuate from **-100 to 100 degrees Celsius** every 45 minutes as objects orbit through darkness and sunlight.
- It will also gauge timber's ability to reduce the impact of **space radiation** on semiconductors, making it useful for applications such as **data centre construction**.

7. (b)

In News: The birth anniversary of CV Raman was observed on the 7th of November each year.

He was awarded the Nobel Prize in Physics (1930) for his discovery of the Raman Effect. Raman Effect is a phenomenon where a fraction of light scattered by a liquid changes color, providing insights into the molecular composition of the substance.

8. (c)

Context: South Korea has become a top testing ground for the sweetener allulose, which is gaining popularity as a strong contender to other sugar substitutes like stevia.

About: Allulose

- **Production:** Also known as **D-allulose** and **d-psicose**, it is naturally present in only certain foods like **wheat, raisins, figs, molasses**. It is commercially produced from beet sugar or corn using specific enzymes.
- **Similarity and difference:** It is **70% as sweet** as sugar and **does not** have the **bitter aftertaste** found in some sweeteners, like **aspartame**.

- **Controls blood sugar spikes:** The effectiveness of allulose in controlling blood sugar spikes is impressive and lowers blood sugar not just in people with diabetes but also in those without it.
- **Weight loss:** Eating allulose-sweetened foods can help with weight loss and fat loss as it only has **10% of the calories** found in table sugar.
- **Side effects:** Allulose hasn't been linked to any adverse health risks, however, high doses may cause side effects like **nausea, diarrhea, and other gastrointestinal symptoms**.
- **Approval:** It has been approved by both **U.S. and South Korean regulators**. However, it has yet to gain widespread approval by regulatory authorities worldwide. Also, **high production costs** limit its use as a commercial sweetener.

9. (c)

Context: The need for lightning rods to prevent strikes is rising as climate change amplifies lightning frequency, causing about 24,000 deaths annually.

What is lightning?

- Lightning is an **electrical discharge between charged particles** in a cloud and the ground.
- Although air is typically an electrical insulator, when exposed to a high voltage of approximately **3 million V/m**, its insulating properties break down, allowing it to conduct current.

What is a lightning rod?

- While a lightning strike occurs between a cloud and an object on or near the ground, it takes the **path of least resistance**, which means it moves towards the closest object with the highest electric potential.
- A lightning rod is a **pointed metal rod** installed on top of buildings and structures.
- The pointed shape of the rod creates a stronger electric field around it, ionizing the surrounding air first and offering a clear path for the lightning to flow.

Where does the current in a lightning rod go?

- An electric current flows from a place with higher electric potential to a place with lower electric potential.
- The lightning **rod is connected to a wire** that drops through the length of the building into the ground, where it dissipates its electric charges into its surroundings.
- The **earth acts as an abundant source of lower electric potential**, helping to dissipate the **electric charges safely**.

10. (c)

Gluten is infamous for the allergic reaction it induces in some people.

- Many cereal grains — but in particular **barley, wheat, and rye** — contain specific proteins that, when **mixed with water and kneaded**, create an **elastic mass, called gluten**.
- An enzyme called **protease** helps digest proteins but it cannot break down **gluten**.
 - When such gluten reaches the small intestine, the body can develop **gastrointestinal problems**.
- **Coeliac disease:** It's characterised by a severe allergic reaction in the small intestine, prompting the immune system to produce a large number of antibodies that attack the body's own proteins.
 - The disease is present in around **2% of the general population**.

11. (a)

Thrombotic Thrombocytopenic Purpura (TTP) is a **rare and serious blood disorder** characterized by the **formation of small blood clots (thrombi)** in the **small blood vessels** throughout the body.

- The clots can **limit or block the flow of blood to organs**, such as the brain, kidneys, and heart.
- It is often caused by **autoimmune antibodies against the ADAMTS13 enzyme**.
- **Symptoms:** Fever, Fatigue and weakness, Pale skin or jaundice, Neurological symptoms, purpura or unexplained bruising, abdominal pain and shortness of breath or signs of heart failure if the heart is affected.
- **Treatment:** Early recognition and urgent treatment with plasmapheresis and immunosuppressive therapy are essential for improving survival outcomes.

12. (b)

About Lead (Pb):

- **Brief:** Lead is a **heavy metal** and a naturally occurring element found in the Earth's crust. It is **soft, malleable**, and has a relatively **low melting point**.
- **Sources of Lead Exposure:** Industrial Processes like Mining, smelting, manufacturing, recycling.
 - Product Usage like Lead-acid batteries (largest consumer), paints, pigments, stained glass, ceramics, ammunition.
 - Water Contamination by leaks from old lead-based plumbing.
- **Smelting units and paints** are known sources of lead poisoning, as they release lead into the environment.
- Pens and pencils do not contain lead (pencils contain graphite, not lead).
- Some hair oils and cosmetics may contain trace amounts of lead, but it is not a significant source of lead poisoning as per typical regulatory standards and practices.

13. (c)

Context: According to a recent study, the Voyager 2 spacecraft, the first and only mission to fly by Uranus in 1986, passed through it when its magnetosphere was unusually compressed by the solar wind.

About Planet Uranus:

- Uranus is the **seventh planet** from the Sun, and it is the **third largest planet** in our solar system – about four times wider than Earth.
- It is surrounded by faint rings, and more than **two dozen small moons** as it rotates at a nearly **90-degree angle** from the plane of its orbit. This unique tilt makes Uranus appear to spin on its side.
- Uranus was the **first planet** found with the aid of a **telescope**. It was discovered in 1781 by astronomer **William Herschel**, although he originally thought it was either a comet or a star.
 - It was two years later that the object was universally accepted as a new planet, in part because of observations by astronomer **Johann Elert Bode**.

14. (a)

Context: According to a newly released report by the World Health Organization, 10.3 million cases of measles were reported globally in 2023, an increase of 20 percent from 2022.

About: Measles

- **Characteristics:** It is a highly **infectious virus**, often characterized by a distinctive **red, spotty rash** that starts on the face and spreads downward, sometimes merging into larger patches.
- **Transmission:** It infects the **respiratory tract** and spreads easily when an infected person breathes, coughs or sneezes.
- **Symptoms:** It includes a high fever, cough, runny nose and a rash all over the body.

- **Vulnerability:** It can affect anyone but is most common in **children**. Also, **no country is exempt** from measles, and areas with low immunization encourage the virus to circulate.
- **Prevention:** It can be prevented with the **MMR vaccine**. The vaccine protects against **three diseases** — measles, mumps and rubella.

15. (b)

Statement 1 is not correct: Sickle cell disease (SCD) is a group of **inherited (genetic) red blood cell disorders**.

- It is transmitted by parents carrying a **defective ‘beta globin’ gene (HBB)**.

Statement 2 is correct: In SCD, the hemoglobin is abnormal, which causes the **RBCs to become hard and sticky and look like a C-shaped farm tool called a “sickle.”**

- When they travel through small blood vessels, they get stuck and clog the blood flow.
- The **sickle cells die early**, which causes a constant shortage of RBCs.

16. (a)

Context: SpaceX’s Falcon-9 is set to launch GSAT-20, one of India’s heaviest communication satellites, from Cape Canaveral in the United States.

About: GSAT-20

- Owned and operated by **New Space India Ltd** (ISRO’s commercial arm), GSAT-20 is also known as **GSAT N-2**.
- Weighing 4,700 kg, GSAT-20 is **too heavy** for India’s own rocket, **LVM-3**—popularly known as ‘Bahubali’—which can carry satellites weighing up to **four tonnes** to the geostationary transfer orbit (GTO).
- The satellite has a mission life of 14 years and will provide vital services across India, including **internet connectivity for remote areas**.

17. (a)

Statement 1 is correct: The Polar Satellite Launch Vehicle (PSLV) is primarily used to launch satellites for Earth resources monitoring, navigation, and other applications in low Earth orbit (LEO) or sun-synchronous orbit (SSO). The Geosynchronous Satellite Launch Vehicle (GSLV) is mainly used to launch communication satellites into geostationary transfer orbit (GTO).

Statement 2 is not correct: Satellites launched by PSLV are typically placed in polar orbits or sun-synchronous orbits, which do not appear stationary from the Earth. Satellites that appear stationary (geostationary) are launched by GSLVs, as they are placed in geostationary orbit, matching Earth’s rotation.

Statement 3 is not correct: The GSLV Mk III is a three-stage launch vehicle, not four-stage.

- The first stage uses solid rocket boosters.
- The second stage uses a liquid rocket engine.
- The third stage uses a cryogenic engine.

18. (d)

Context: Telangana’s Health Department has reported a **spike in chikungunya cases** surpassing figures from previous years.

About

- It is a **viral disease** transmitted by **Aedes mosquitoes**.
- It is a **non communicable disease** i.e. not contagious between humans.
- **Common symptoms include** fever, joint pain, headache, muscle pain, joint swelling, and rash.

- Chikungunya is found in **tropical and subtropical regions** of Africa, Asia, and the Americas.
- **Prevention:** Preventing mosquito bites is the key to avoiding chikungunya infection.
- **Treatment:** There is no specific antiviral treatment for chikungunya. Treatment generally focuses on relieving symptoms.

19. (c)

Context: The Thai Sacbrood Virus (TSBV) poses a significant threat to pollinators, vital for agricultural productivity and nutritional security.

Thai Sacbrood Virus:

- It is a highly contagious viral disease that primarily affects **Apis cerana indica (Asiatic honey bees)**.
- **Symptoms:** Infected larvae turn **yellow and eventually black**, adopting a sac-like appearance due to incomplete pupation.
- **Transmission:** The exact transmission pathways remain unclear, likely mechanisms include:
 - **Direct contact:** Spread through bee-to-bee interactions and contaminated hive equipment.
 - **Viral spillover** occurs from managed honey bees to wild pollinators, which mutate the virus and increase its virulence.

20. (c)

Context: India's achievement of **polio-free status in 2014** represents one of the most significant successes in global public health.

About: Polio

- **Polio (poliomyelitis)** is a **highly contagious viral disease** caused by the **poliovirus**.
- It primarily affects **children under the age of 5** and can lead to severe complications such as **paralysis, disability, or even death**.
- **Spread:** Polio spreads mainly through **fecal-oral transmission**.
 - It **can also be spread** via **respiratory droplets** from coughing or sneezing.
- **Symptoms:**
 - Most cases are **mild or asymptomatic**.
 - A smaller percentage of **infected individuals develop paralytic polio**, which can cause paralysis, usually affecting the legs or respiratory muscles.
- **Vaccination:**
 - There is **no cure** for polio, it can only be **prevented**.
 - Polio vaccine, given multiple times, can protect a child for life.
 - **There are two vaccines available:** oral polio vaccine and inactivated polio vaccine. Both are effective and safe.

21. (c)

Statements 1 and 2 are correct : India has launched Nafithromycin, the country's first indigenously developed antibiotic targeting antimicrobial resistance (AMR).

- **Development:** It is Developed with support from the Biotechnology Industry Research Assistance Council (BIRAC) and brought to market by Wockhardt under the name Miqnaf.
 - The development of Nafithromycin took 14 years of research and an investment of ₹500 crore, with clinical trials conducted in the U.S., Europe, and India.
- It is designed to treat **Community-Acquired Bacterial Pneumonia (CABP)** caused by drug-resistant bacteria, particularly affecting vulnerable groups like children, the elderly, and immune-compromised patients.

22. (a)

Context: Researchers at Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR) developed a technology for detecting HIV-genome derived G-Quadruplex (GQ).

Problem with Current Methods:

- Traditional HIV diagnostic tests, including nucleic acid-based methods, can suffer from false positives and missed early infections due to non-specific DNA probes and cross-reactivity.

About New Diagnostic Technology

- It is named GQ Topology-Targeted Reliable Conformational Polymorphism (**GQ-RCP**).
- It was initially designed for detecting pathogens like SARS-CoV-2, now adapted for HIV.
- It uses a **fluorometric test**, which offers increased reliability in diagnosing HIV and reduces false positives.

23. (d)

Context: The Indian National Space Promotion and Authorisation Centre (IN-SPACe) is looking at ways for entry of private players in ground operations.

Statements 1 and 2 are incorrect : IN-SPACe was established in **2020** by the **Union Cabinet**, and serves as the **central agency** for regulating and promoting the private space sector.

- It is an independent, nodal agency which functions as an **autonomous agency in the Department of Space (DOS)**.
- IN-SPACe plays an important role in **boosting the private space sector economy in India**.
- IN-SPACe serves as a single-window agency to facilitate the participation of private companies in space activities, **including building launch vehicles, satellites**, and providing space services. It also oversees the sharing of space infrastructure and the establishment of new facilities.
- **Three Directorates** viz., Promotion Directorate (PD), Technical Directorate (TD) and Program Management and Authorization Directorate (PMAD) are carrying out the functions of IN-SPACe.

24. (d)

Both the statements are not correct: Proba-3 is the **European Space Agency's (ESA) mission** to study the Sun's corona - the **outer layer of the Sun's atmosphere**.

- It will see two satellites in a formation parallel to each other for long durations **creating an artificial eclipse in space**.
- **Significance:**
 - The mission's success could pave the way for **future multi-satellite missions**, enhancing understanding of space weather and its impact on Earth.
 - The mission **exemplifies international cooperation**, with contributions from ESA member states including France, Belgium, and the Netherlands, alongside ISRO.

25. (d)

A new study from the Indian Institute of Science (IISc) reveals that cancer cells adapt their migration patterns based on their microenvironment's physical and biochemical characteristics.

Ovarian cancer is a group of diseases that originate in the ovaries, fallopian tubes, or peritoneum.

- It is a serious disease marked by abnormal cell growth in the ovaries, often with subtle or nonspecific symptoms that make early detection challenging.
- It is one of the deadliest gynecological cancers, typically diagnosed at advanced stages, which complicates treatment and lowers survival rates.
- **Causes :** Genetic, reproductive, and hormonal factors contribute to its development, highlighting the need for effective risk assessment and screening.

- **Types of Ovarian Cancer: Epithelial Ovarian Cancer:** Accounts for over 95% of ovarian cancers.
 - **Nonepithelial Ovarian Cancer:** Makes up about 5%, including germ cell, sex-cord stromal, and small cell cancers.
 - **Histologic Subtypes:** Epithelial cancers are further classified into high-grade serous, low-grade serous, clear cell, endometrioid, and mucinous subtypes, each with different diagnostic, management, and patient outcome considerations.

26. (a)

Statement 1 is correct: Plastic refers to a **wide range of synthetic or semi-synthetic materials** that use **polymers** as a main ingredient with their defining quality being their **plasticity** – the ability of a solid material to undergo permanent deformation in response to applied forces.

- This makes them extremely **adaptable, capable of being shaped as per requirement**.
- The basic building blocks of plastics are **monomers**, which are small molecules that can join together to form long chains called **polymers through a process called polymerization**.

Statement 2 is not correct: Microplastics: Plastics break down into their smaller units called **microplastics** – officially defined as plastics **less than five millimetres in diameter**.

- These microplastics find their way across the planet, from the depths of the Pacific Ocean to the heights of the Himalayas.

27. (a)

Statement 1 is correct: Crops that have undergone **genetic engineering processes** to alter their DNA are referred to as genetically modified crops.

- This alteration is done **to introduce desirable traits** such as resistance to pests or herbicides, improved nutritional content, or increased yield.
- **The process of creating GM crops typically involves:** identification of desired traits, isolation of genes, insertion into crop genome, and expression of the trait.

Statement 2 is not correct: Bt Cotton: In 2002, the GEAC had allowed the commercial release of Bt cotton.

- Bt cotton has two alien genes from the soil bacterium *Bacillus thuringiensis* (Bt) that allows the crop to develop a protein toxic to the common pest **pink bollworm**.
- Till now, it is the **only GM crop that is allowed to be commercially grown in India**.
- Many varieties of GM crops are under different stages of development, like **Bt brinjal** and **DMH-11 mustard**.

28. (b)

Context: U.S. President-elect Donald Trump has threatened tariffs on Chinese goods due to China's alleged involvement in the U.S. fentanyl crisis.

About: Fentanyl (C₂₂H₂₈N₂O)

- **Uses:** It is a powerful synthetic (lab-made) **opioid drug** approved by the Food and Drug Administration for use as an **analgesic (pain relief) and anesthetic**.
- **Potency:** It is approximately **100 times** more potent than morphine and **50 times** more potent than heroin as an analgesic.
- **Effect: Highly addictive**, and its overdoses can cause “stupor, changes in pupil size, clammy skin, coma, and respiratory failure leading to death”. For Americans, it is now the **leading cause of death** among people aged 18 to 45.



ENVIRONMENT & ECOLOGY

1. Durgesh Aranya Zoological Park is being established in which of the following states?
- (a) West Bengal (b) Assam
(c) Tamil Nadu (d) Himachal Pradesh
2. Which of the following are considered greenhouse gases that contribute to global warming?
1. Carbon dioxide 2. Ozone
3. Nitrous oxide 4. Water vapour
- Select the correct answer using the code given below:
- (a) Only one (b) Only two
(c) Only three (d) All four
3. Which one of the following regions of India has a combination of mangrove forest, evergreen forest and deciduous forest?
- (a) North Coastal Andhra Pradesh (b) South-West Bengal
(c) Southern Saurashtra (d) Andaman and Nicobar Islands
4. The 'Peace with Nature' Coalition sometimes mentioned in the news, includes which of the following countries?
- (a) India, Chile, and Mexico (b) Sweden, Mexico, and Uganda
(c) Australia, Uganda, and Mexico (d) China, Chile, and Sweden
5. With reference to the Corals, which of the following statements is/are correct?
1. The invertebrates belong to a group of animals called Cnidaria.
2. Corals are formed by multiple small organisms known as polyps.
- 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 *Sterols*, consider the following statements:
1. They are an important chemical component of the cell membranes of animals and plants.
2. In mammals including humans, the principal sterol is cholesterol.
- 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. Which of the following states are a part of the Western Ghats?
1. Gujarat 2. Maharashtra
3. Tamil Nadu 4. Goa

Select the correct answer using the code given below:

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

8. With reference to the Tardigrades, which of the following statements is/are correct?
1. These organisms, also called water bears and moss piglets, are microscopic eight-legged creatures without a backbone.
 2. Tardigrades are known for their resilience, particularly through a process called cryptobiosis.

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

9. With reference to bio-toilets used by the Indian Railways, consider the following statements:
1. The decomposition of human waste in the bio toilets is initiated by a fungal inoculum.
 2. Ammonia and water vapour are the only end products in this decomposition which are released into the atmosphere.

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 of the following statements about cyanobacteria is correct?
- (a) They are also known as red algae.
 - (b) They are photosynthetic and produce their food using sunlight.
 - (c) They are found exclusively in aquatic habitats.
 - (d) None of the above.

11. Which of the following statements about Manas National Park is/are correct?
1. It was designated as a UNESCO World Heritage Site in 1988.
 2. The Manas and Beki rivers flow through the park and are tributaries of the Ganga.

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

12. Consider the following statements:
1. India is ranked second in the world for installed wind energy capacity.
 2. Gujarat is the leading state in India for wind power generation.
 3. India has a target of producing 200 GW of its Renewable Energy from Wind power by 2030.

How many of the statements given above are correct?

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

13. With reference to the Hokersar Wetland, consider the following statements:
1. Hokersar is located in the northwest Himalayan biogeographic province of Kashmir and receives water mainly from the Doodhganga River.
 2. It is designated as a Ramsar site.
 3. The Ramsar Convention was signed in Ramsar, Iran, to protect wetlands of international importance.

Which of the statements given above is/are correct?

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

14. Article 6.4 under the Paris Agreement primarily deals with;
- (a) The obligation for developed countries to provide financial aid to developing countries.
(b) Establishing a UN-regulated system for trading carbon credits to offset emissions.
(c) Mandating renewable energy targets for all signatory countries.
(d) Setting binding emission reduction targets for all parties.
15. What is the primary purpose of the Graded Response Action Plan (GRAP)?
- (a) To promote renewable energy usage in industries.
(b) To monitor water pollution levels in major rivers.
(c) To regulate waste management practices in urban areas.
(d) To implement measures to combat air pollution based on severity.
16. What makes the 'Turritopsis dohrnii' jellyfish biologically significant?
- (a) It produces its own light through bioluminescence.
(b) It is capable of reverting to its polyp stage.
(c) It is the largest jellyfish species known to science.
(d) It is the only jellyfish species found in freshwater ecosystems.
17. Which of the following countries have launched the 'Global Energy Efficiency Alliance' during COP 29?
- (a) India (b) France
(c) United Arab Emirates (UAE) (d) Azerbaijan
18. Guru Ghasidas-Tamor Pingla has been notified as the 56th tiger reserve of India. It is located in;
- (a) Chhattisgarh (b) Jharkhand
(c) Rajasthan (d) Gujarat
19. Which of the following species of honey bees are found in India?
1. Asiatic honey bee 2. Giant rock bee
3. Dwarf honey bee 4. The stingless bee
- Select the correct answer using the code given below:
- (a) 1, 2, 3 and 4 (b) 1, 2 and 4 only
(c) 2, 3 and 4 only (d) 1 and 2 only
20. What is the primary function of the pink patches of skin above the eyes of African penguins?
- (a) To attract mates (b) To help regulate body temperature
(c) To aid in underwater navigation (d) To camouflage from predators
21. Which one of the following is the highest contributor of greenhouse gases emissions?
- (a) European Union (b) China
(c) United States (d) Russia
22. With reference to the Amur Falcon, consider the following statements:
1. The species is named after the Amur River that forms the border between Mongolia and Russia.

2. It is listed as least concerned 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

23. With reference to the Green hydrogen, consider the following statements:

1. It involves extracting hydrogen from natural gas through a process called steam methane reforming (SMR).
2. The production emits no greenhouse gases or pollutants, making it a zero-emission energy carrier.

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 Bandipur Tiger Reserve, consider the following statements:

1. It is situated in Tamil Nadu and is a component of the Nilgiri Biosphere Reserve.
2. It is bordered by Mudumalai Tiger Reserve to the south and Wayanad Wildlife Sanctuary to the southwest.

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 Paris Agreement, consider the following statements:

1. It is a legally binding international treaty on climate change, adopted in 2015.
2. Countries must review and update their nationally determined contributions (NDCs) every three years under 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

26. With reference to the Ashtamudi Lake, consider the following statements:

1. The lake is fed by the Periyar river in Kerala.
2. The lake is connected to the Arabian Sea.
3. The lake is part of the Ashtamudi Wetland, which is a Ramsar Wetland site.

How many of the statements given above are correct?

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

27. Consider the following statements

1. Minke whales are the smallest baleen whales.
2. Minke whales are found in polar and tropical waters worldwide.
3. The IUCN Red List of Threatened species classifies Antarctic Mink whales as Endangered.

How many of the statements given above are correct?

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

28. Consider the following statements:

1. Environment (Protection) Act, 1986 aims to control and reduce air pollution by establishing pollution control boards at the central and state levels.
2. Forest (Conservation) Act, 1980 establishes protected areas such as national parks and wildlife sanctuaries.

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. Which of the following statements about the Loss and Damage Fund (LDF) is correct?

- (a) It was established during COP26 held in Dubai.
- (b) It aims to provide financial assistance to all countries affected by climate change.
- (c) It addresses climate impacts that exceed the limits of adaptation.
- (d) Financial support under LDF is provided only in the form of loans.

30. With reference to the Biomedical Waste Management Rules, 2016, consider the following statements:

1. It defines categories of biomedical waste and specifies color coding for disposal.
2. Red coding for disposal indicates sharps such as needles, scalpels.

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

31. With reference to the Asiatic lions, consider the following statements:

1. They are slightly smaller than African lions and are found in the Gir Forest.
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

EXPLANATIONS

1. (d)

Himachal Pradesh is set to introduce **India's first IGBC-certified zoological park in Kangra's Dehra constituency.**

- The **Durgesh Aranya Zoological Park**, located in Bankhandi, will feature sustainable and eco-friendly infrastructure, making it a pioneer in green-certified wildlife parks.

2. (d)

Context: Greenhouse gas levels surged to a new record in 2023, committing the planet to rising temperatures for many years to come, according to a report from the World Meteorological Organization (WMO).

About:

- Greenhouse gases are transparent to incoming (short-wave) radiation from the sun but block infrared (long-wave) radiation from leaving the earth's atmosphere.

- This greenhouse effect traps radiation from the sun and warms the planet's surface. As concentrations of these gases increase, more warming occurs than would happen naturally.
- Greenhouse gases consist of **carbon dioxide**, methane, **ozone**, **nitrous oxide**, chlorofluorocarbons, and **water vapour**.

3. (d)

The Andaman and Nicobar Islands are one of the few places in India where these three forest types exist together because of the islands' tropical climate and unique location. The other options don't have this same mix of forest types.

- **Mangrove forests** grow along the coastlines and are adapted to salty water. They're the tangled, swampy forests you might see near the sea.
- **Evergreen forests** stay green year-round because the trees don't lose their leaves all at once; instead, they shed a little throughout the year.
- **Deciduous forests** are the ones where trees shed all their leaves in a particular season, usually in response to dry weather, and grow new leaves later.

4. (b)

In News: A coalition named "Peace with Nature" was launched at the 16th Conference of the Parties (COP16) to the Convention on Biological Diversity (CBD) in Cali, Colombia.

About 'Peace with Nature' Coalition:

The 'Peace with Nature' Coalition is a global initiative focused on reshaping humanity's relationship with nature through a set of guiding principles. The coalition aligns with the goals of the Convention on Biological Diversity (CBD), a legally binding treaty signed by 196 nations focused on the conservation of biodiversity, the sustainable use of its components, and the fair sharing of benefits from genetic resources. The coalition includes countries from four continents, such as Mexico, Sweden, Uganda, and Chile, but it does not have any members from the Asia-Pacific region.

5. (c)

What are Corals?

- Corals are **invertebrates** that belong to a large group of animals called **Cnidaria**.
 - Corals are formed by **multiple small, soft organisms known as polyps**.
 - They secrete a **rocky chalk-like (calcium carbonate) exoskeleton** around themselves for protection.
 - **Coral reefs** are therefore created by **millions of tiny polyps forming large carbonate structures**.
- **Appearance:** Corals range in color from **red to purple and even blue**, but are most commonly shades of **brown and green**.
 - They get most of their colors from the **millions of microscopic algae that grow inside each polyp's tissues**.
- **There are three types of coral reefs** – fringing reefs, barrier reefs and atolls.
 - Fringing reefs **form along shorelines**, **barrier reefs form in open water** and **atolls are circular reefs** that have formed around **sunken volcanoes**.

6. (c)

Both Statement 1 and 2 are correct: In Plants: Sterols are an important chemical component of the **cell membranes of plants, animals, and fungi**. The compound makes the membranes more rigid.

- In mammals including humans, the principal sterol is **cholesterol**.
- If it is present in high concentrations in the body, it tends to be deposited in the inner lining of our blood vessels.
- As the deposits accumulate, they block the flow of blood, eventually leading to chest pain, heart attack, and/or stroke.

7. (d)

The Western Ghats, also known as the **Sahyadri Hills**, are a mountain range that runs parallel to the **western coast of India**.

- **Western Ghats as an Ecologically Sensitive Area (ESA)** spanning **six states: Gujarat, Maharashtra, Goa, Karnataka, Kerala, and Tamil Nadu**.

8. (c)

Context: Researchers are attempting to synthesize secretory-abundant heat-soluble proteins used by tardigrades in other microbes to enhance tolerance against desiccation.

About: Tardigrades

- These are one of the most resilient as well as enigmatic life forms on the earth.
- These organisms, also called water bears and moss piglets, are microscopic **eight-legged** creatures without a backbone.
- Tardigrades are known for their resilience, particularly through a process called **cryptobiosis**. This unique adaptation allows them to withstand extreme conditions, such as intense radiation, extreme temperatures, high pressure, and desiccation, by entering a nearly death-like state that suspends their metabolism until conditions improve.

9. (d)

Statement 1 is not correct: In bio-toilets used by the Indian Railways, the decomposition of human waste is initiated by bacterial inoculum, specifically anaerobic bacteria, not fungi. These bacteria break down waste into simpler components.

Statement 2 is not correct: The primary end products of decomposition in bio-toilets are methane (CH₄), carbon dioxide (CO₂), and water vapor. Some ammonia may be present, but methane and carbon dioxide are the main gases released.

10. (b)

Cyanobacteria, also called **blue-green bacteria or blue-green algae**, are photosynthetic microscopic organisms. They thrive in a wide range of environments, **including terrestrial and aquatic habitats**, such as fresh and saltwater, soil, and even extreme environments like hot springs. Cyanobacteria are characterized by their **blue-green color, derived from the pigment phycocyanin**. This pigment **helps capture light energy, which cyanobacteria use for photosynthesis to produce their own food**.

11. (a)

About Manas National Park

- **Location:** Situated in the Himalayan foothills in Assam, contiguous with Bhutan's Royal Manas National Park.
- **UNESCO Status:** Declared a UNESCO World Heritage Site in 1988 and recognized as a **Project Tiger reserve**, elephant reserve, and biosphere reserve.
- **Etymology:** Named after the Manas River, which flows through the park and is a major tributary of the **Brahmaputra River**.

- **Significance:** Known for its rare and endangered species, including the Assam roofed turtle, hispid hare, golden langur, and pygmy hog. It is also famous for a significant population of wild water buffalo.

12. (a)

Statement 1 is not correct: India has wind power potential for 1,163.86 GW at 150 metres above ground level, and is **ranked fourth** in the world for installed wind energy capacity.

Statement 2 is correct: Gujarat, Tamil Nadu, Karnataka, Maharashtra, Rajasthan, and Andhra Pradesh are the leading States for installed wind energy capacity, collectively contributing **93.37%** of the country's wind power capacity installation.

Statement 3 is not correct: India has a vision to achieve **Net Zero Emissions by 2070**, in addition to attaining the short-term targets which include:

- Increasing renewables capacity to **500 GW by 2030**, out of which **140 GW will be coming from wind power**.

13. (d)

Statement 1 is correct: Hokersar Wetland is located in the northwest Himalayan province of Kashmir, receiving water from the Doodhganga River.

Statement 2 is correct: Hokersar is a Ramsar site, known for its reedbeds and as a habitat for 68 waterfowl species.

Statement 3 is correct: The Ramsar Convention is named after Ramsar, the city in Iran where it was signed. Established in 1971, it provides the framework for the conservation and wise use of wetlands globally.

14. (b)

Context: Experts have raised concerns over the new rules adopted for **Article 6.4** of the carbon market during the **COP29** held in **Baku, Azerbaijan**.

About:

- **Article 6.4:** Refers to a provision under the **Paris Agreement** that establishes a UN-regulated system for trading **carbon credits**, which countries and private companies can use to offset their emissions.
- **Carbon credits:** Countries can transfer carbon credits earned from reducing greenhouse gas emissions to help other countries achieve their targets.

15. (d)

Context: As Delhi's air quality deteriorated to 'severe' category, the Commission for Air Quality Management (CAQM) ordered the implementation of 'Stage 3' emergency measures under the Graded Response Action Plan (GRAP) to curb the city's air pollution.

What is GRAP?

- It serves as a structured approach to address **air pollution issues** in the **Delhi-NCR area** according to the **severity of the situation**.
- The GRAP for Delhi-NCR is divided into **four stages** of air quality — Stage 1 for "poor" AQI ranging between 201 and 300, Stage 2 for "very poor" AQI of 301-400, **Stage 3 for "severe" AQI of 401-450** and Stage 4 for "severe plus" AQI more than 450.
- As per the plan, actions under **Stages 2-4** are invoked **at least three** days in advance of the AQI reaching the projected levels.

16. (b)

Certain jellyfish species, such as *Turritopsis dohrnii* and *Mnemiopsis leidyi*, can revert to an earlier life stage when stressed. This ability allows them to survive harsh conditions and potentially extend their lifespan. Studying these jellyfish can provide insights into the mechanisms of aging and regeneration.

17. (c)

The **United Arab Emirates (UAE)** has unveiled an ambitious initiative to establish the '**Global Energy Efficiency Alliance**' during COP29.

- The initiative builds on the '**UAE Consensus**' from COP28, a commitment that brought together countries to reduce carbon emissions.
- It aims to **double global energy efficiency rates by 2030** and contribute to **significant emission reductions**.

18. (a)

Context: Guru Ghasidas-Tamor Pingla in **Chhattisgarh** has been notified as the **56th tiger reserve of India**.

Geographical Location:

- **Location:** The tiger reserve is nestled in the **Chota Nagpur plateau** and partly in **Baghelkhand plateau**.
 - It is spread across Manendragarh-Chirmiri-Bharatpur, Korea, Surajpur and Balrampur districts of Chhattisgarh.
- **Flora:** The reserve is part of the Eastern Highlands moist deciduous forests, hosting Sal, Teak etc.
- **Fauna:** Asian elephant, Bengal tiger, nilgai, chousingha, dhole,, pythons, red jungle fowl, gray jungle fowl and green pigeon etc.
- **Corridor Connectivity:** The forests of Guru Ghasidas-Tamor Pingla, act as a corridor between the **Bandhavgarh tiger reserves (Madhya Pradesh)** and **Palamu tiger reserves (Jharkhand)**.

19. (a)

Honey bees in India:

- India hosts more than **700 bee species**, including four indigenous honey bees:
 - Asiatic honey bee (*Apis cerana indica*),
 - Giant rock bee (*Apis dorsata*),
 - Dwarf honey bee (*Apis florea*),
 - The stingless bee (sp. *Trigona*).
- **Western honey bees** were introduced in India in **1983** to increase the country's honey yield.

20. (b)

Context: The African penguin became the first penguin species in the world to be listed as critically endangered by the International Union for the Conservation of Nature (IUCN).

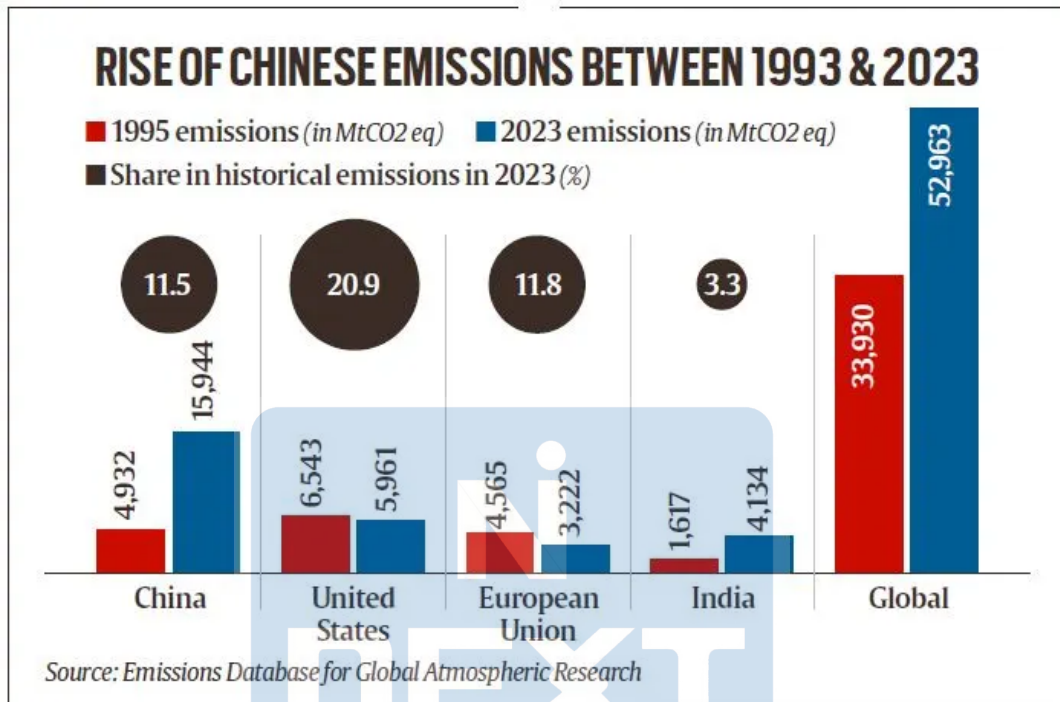
About: African penguins (*Spheniscus demersus*):

- It is one of the **smallest penguin species**, commonly referred to as "jackass" penguins due to their donkey-like braying calls.
- African penguins can be recognized by the **pink patches** of skin above their eyes, which are used to regulate body temperature.

- **Habitat:** They are found only in **Namibia and South Africa**. Their numbers have been **declining since the 1800s** and at present there are fewer than 20,000 birds left in the wild.
- **Threat:** Predators, such as Cape fur seals and kelp gulls, rising ocean temperatures, and lack of prey (small fish like sardines and anchovies).

21. (b)

In News: China, the world’s largest emitter of greenhouse gases for more than 15 years, faces a significant paradox in its efforts to balance economic growth with environmental sustainability.



22. (b)

Context

- The 9th Amur Falcon festival was celebrated in Tamenglong district of Manipur to raise awareness about the **Amur falcons**, the world’s longest travelling birds.

About: Amur Falcon

- They are small raptors of the falcon family with the scientific name **Falco amurensis**.
- The species is named after the **Amur River** that forms the border between **Russia and China**.
- It breeds in **southeastern Siberia and northern China**, and migrates in millions across India and then over the Indian Ocean to Africa before returning to **Mongolia and Siberia**.
- **Conservation Status:**
 - IUCN Red List: **Least Concerned**
 - Indian Wildlife Protection Act, 1972: Protected
 - The Convention on Migratory Species (CMS): Protected

23. (b)

Statement 1 is not correct: Green hydrogen refers to hydrogen that is produced **using renewable energy sources**, such as wind, solar, or hydropower, through a process called electrolysis.

- Electrolysis involves splitting water (H2O) into hydrogen (H2) and oxygen (O2) using an electric current.
 - When this electricity comes from renewable sources, the hydrogen produced is considered “green” because the overall process has a **minimal environmental impact**.

- **Grey Hydrogen:** It involves extracting hydrogen from natural gas through a process called **steam methane reforming (SMR)**.
 - This process releases **carbon dioxide (CO₂)** as a byproduct, contributing to greenhouse gas emissions.

Statement 2 is correct: Significance of Green Hydrogen

- **Zero Emissions:** The production emits **no greenhouse gases or pollutants, making it a zero-emission energy carrier.**
- **Energy Storage:** Green hydrogen can serve as a means of storing excess renewable energy generated during periods of low demand for later use, helping to balance the grid and enhance energy security.
- **Versatile Applications:** Hydrogen can be used as a fuel in various sectors including transportation, industry, and heating.

24. (b)

Context: The Karnataka Forest Department has imposed restrictions on the annual jathra (religious fair) of Beladakuppe Sri Mahadeshwaraswamy Temple, located in the core area of **Bandipur Tiger Reserve**.

Statement 1 is not correct : Bandipur Tiger Reserve situated in Karnataka.

- It is located in one of India's most biodiverse regions, within the "5 B Western Ghats Mountains Biogeography Zone."
- Bandipur is part of the **Nilgiri Biosphere Reserve** (5,520 sq. km), India's first Biosphere Reserve, notified in 1986 under the Man and Biosphere Programme.

Statement 2 is correct : It is bordered by Mudumalai Tiger Reserve to the south, Wayanad Wildlife Sanctuary to the southwest, and the Kabini Reservoir to the northwest, which separates it from Nagarahole Tiger Reserve.

- To the north, the reserve is surrounded by human-influenced landscapes, including villages and agricultural lands.

25. (a)

Statement 1 is correct: It is a **legally binding international treaty** on climate change, adopted in **2015**, at the **COP21** to the United Nations Framework Convention on Climate Change (UNFCCC).

- It aims to **limit global warming to below 2 degrees Celsius** above pre-industrial levels, with efforts to limit the increase to 1.5 degrees Celsius.

Statement 2 is not correct: The Paris Agreement emphasizes **nationally determined contributions (NDCs)** and encourages all countries to take climate action.

- Countries must **review and update their NDCs every five years** to enhance their efforts and increase ambition over time.

26. (b)

Statement 1 is not correct: It is located in the **Kollam district of Kerala**.

- The lake is fed by the major river, **Kallada**.

Statement 2 and 3 are correct: The lake is connected to the **Arabian Sea through the Ashtamudi Estuary**.

- It is part of the **Ashtamudi Wetland**, which is a **Ramsar Wetland site**, recognized in **2002** for its international importance.

27. (b)

In News : Scientists have for the first time directly measured the hearing range of minke whales, revealing that they can detect high-frequency sounds up to 90 kilohertz (kHz), much higher than previously believed.

Statements 1 and 2 are correct : Minke whales are the **smallest baleen whales** and members of the rorqual family.

- They are abundant and have a stable population worldwide, though commercial whaling has impacted some populations.
- **Habitat and Distribution:** Found in polar, temperate, and tropical waters worldwide.
 - Minke whales migrate seasonally, moving to colder regions in summer and warmer waters in winter

Statement 3 is not correct :IUCN Status :

Antarctic Minke Whale	<i>Balaenoptera bonaerensis</i>	Global	<NT>
Common Minke Whale	<i>Balaenoptera acutorostrata</i>	Global	<LC>
Common Minke Whale	<i>Balaenoptera acutorostrata</i>	Europe	<LC>

28. (d)

In News: Experts and policymakers are advocating for the establishment of an **Environmental Health Regulatory Agency (EHRA) in India** to focus on comprehensive and cohesive environmental governance amid rapid economic growth, coupled with increasing pollution levels.

Statement 1 is not correct

- **The Environment (Protection) Act, 1986** empowers the central government to take measures to protect and improve the environment.
 - It provides the framework for the coordination of various environmental regulations and the establishment of authorities to tackle specific environmental issues.
 - However, **the Air (Prevention and Control of Pollution) Act, 1981** aims to control and reduce air pollution by **establishing pollution control boards at the central and state levels.**

Statement 2 is not correct

- **The Wildlife (Protection) Act, 1972** provides for the protection of wild animals, birds, and plants.
 - It **establishes protected areas such as national parks and wildlife sanctuaries** and regulates hunting, poaching, and trade in wildlife.
 - However, the **Forest (Conservation) Act, 1980** aims to conserve forests and regulate deforestation, and it requires prior approval from the central government for the diversion of forest land for non-forest purposes and emphasizes the sustainable use of forest resources.

29. (c)

About Loss and Damage Fund (LDF)

- **Establishment:**
 - Agreed upon during COP27 (2022) in Egypt.
 - Operationalized in COP28 (2023) in Dubai.

- **Objective:** To provide financial assistance to countries most vulnerable to the impacts of climate change.
- **Definition of “Loss and Damage”:** Refers to climate impacts exceeding the capacity of adaptation. It includes:
 - **Economic losses:** Damage to infrastructure, livelihoods, and economy.
 - **Non-economic losses:** Cultural loss, loss of biodiversity, and ways of living.
- **Funding Mechanism:** The LDF provides financial support in various forms, including grants and concessional financing.

30. (a)

Statement 1 is correct: The Biomedical Waste Management Rules, 2016 provides a framework for the management of biomedical waste (BMW) generated from healthcare facilities and other related sources.

- It defines seven categories of biomedical waste (e.g., human tissues, sharps, discarded medicines, body fluids, and microbiological waste) and specify color coding for disposal.

Statement 2 is not correct:

- Yellow: Infectious waste (e.g., contaminated items, body parts).
- **Red: Contaminated plastic items.**
- Blue: Glassware (e.g., bottles, vials).
- **White: Sharps (e.g., needles, scalpels).**
- Black: General waste (e.g., paper, plastic).

31. (a)

Context: Asiatic Lions – whose entire population numbering 674 is in Gujarat – co-exist with humans through mutual adaptation, enforced legal protection, economic drivers, and government compensation for livestock, among others, revealed new research released recently.

About: Asiatic lions

- Asiatic lions are **slightly smaller** than African lions.
- The Asiatic Lions have longitudinal skin folds on their belly, which are quite a unique character.
- They are **found only** in the Gir Forest, with population growth from 523 in 2015 to 674 in 2020.
- **IUCN Red List Status** : Endangered



MISCELLANEOUS

1. The D’Cunha Committee is associated with which of the following?
 - (a) Implementation of GST reforms
 - (b) Environmental impact of infrastructure projects
 - (c) COVID-19 ventilator procurement irregularities
 - (d) Electoral reforms in India
2. With reference to the National Milk Day, consider the following statements:
 1. National Milk Day celebrates the launch of Operation Flood.
 2. The National Gopal Ratna Awards are conferred each year on the occasion of National Milk Day.

Which of the statements given above is/are correct?

 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
3. Which one of the following institutions recently introduced the report titled as ‘Jobs at Your Doorstep’ to achieve the \$5 trillion economy target of India?
 - (a) NITI Aayog
 - (b) World Bank
 - (c) International Monetary Fund (IMF)
 - (d) Reserve Bank of India (RBI)
4. With reference to the Asiatic lions, consider the following statements:
 1. They are slightly smaller than African lions and are found only in the Gir Forest.
 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
5. The Riyadh Design Law Treaty (DLT) is adopted under the aegis of which international organization?
 - (a) United Nations Industrial Development Organization (UNIDO)
 - (b) World Trade Organization (WTO)
 - (c) International Labour Organization (ILO)
 - (d) World Intellectual Property Organization (WIPO)
6. Recently, which one of the following has become the 104th member of the International Solar Alliance?
 - (a) Panama
 - (b) Armenia
 - (c) Spain
 - (d) Paraguay

7. The 4B Movement, recently seen in the news, primarily aims
- To promote traditional family values.
 - To protest patriarchal and misogynistic institutions.
 - To encourage population growth through marriage incentives.
 - To encourage women to pursue careers in STEM fields
8. Which organization released the 'Adaptation Gap Report 2024: Come Hell and High Water'?
- World Bank
 - United Nations Environment Programme (UNEP)
 - World Meteorological Organization (WMO)
 - International Monetary Fund (IMF)
9. In India, it is legally mandatory for which of the following to report on cyber security incidents?
- Service providers
 - Data centres
 - Body corporate

Select the correct answer using the code given below:

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

10. Consider the following statements:
- The Olympic Games originated in ancient Greece in the 8th century BCE in honor of the Greek god Zeus.
 - The first modern Olympic Games were held in Paris.
 - Japan and China are the only Asian countries to host the Olympics Games.

How many of the statements given above are *not* correct?

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

11. Sea foam observed along ocean shores is primarily formed by which of the following components?
- Micelles made of minerals from ocean sediment
 - Organic material, wind, and waves
 - Salt and minerals from evaporated seawater
 - Heavy metals from industrial pollution
12. Which among the following Indian States has recently decided to ban the production, sale, and storage of all mayonnaise made from raw eggs for one year?
- | | |
|--------------------|----------------|
| (a) Karnataka | (b) Tamil Nadu |
| (c) Andhra Pradesh | (d) Telangana |
13. With reference to the Indira Gandhi Prize for Peace, Disarmament and Development, consider the following statements:
- It has been awarded annually since 1986 by the Ministry of Culture.
 - The recipients are chosen from a pool of national and international nominees.

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. Consider the following statements regarding High-Altitude Sickness (HAS):

1. It occurs due to reduced oxygen levels at elevations above 8,000 feet.
2. Acclimatization is the only way to tackle it and medications have no role in its prevention.

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. '*Laxman Naskar versus Union of India*' Judgement, is related to which of the following?

- (a) Right to Privacy (b) Preventive Detention
(c) President's Rule on States (d) Permanent Remission

16. The Prakash Singh judgment of 2006, given by the Supreme Court of India, is related to which of the following?

- (a) Environmental conservation (b) Electoral reforms
(c) Police reforms (d) Judicial accountability

17. '*Kasturirangan Committee*' often seen in the news, is related to which of the following?

- (a) Centre-state fiscal relationship (b) Reforms in Banking Sector
(c) Army pay scales (d) Conservation of Western Ghats

18. Which of the following statements is/are correct about the Rohini Nayar Prize?

1. It is awarded annually to recognize exceptional contributions to rural development in India.
2. The prize honors individuals under the age of 25 and does not come with a monetary award.

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

19. The Bibek Debroy Committee recommended an overhaul of the accounting system in Indian Railways. What was the primary objective behind this recommendation?

- (a) To reduce operating expenses through a simplified cash-based accounting system.
(b) To improve financial transparency and accountability with accrual accounting.
(c) To transition to an international currency-based system for international partnerships.
(d) To enable the privatization of Indian Railways' financial operations.

20. Which among the following countries has recently announced that a public ban on facial coverings, commonly referred to as the "burqa ban," will take effect on January 1, 2025?

- (a) Japan (b) France
(c) China (d) Switzerland

21. Which one of the following international organisations released the '*State of Food and Agriculture 2024*' ?

- (a) Food and Agriculture Organization (FAO)
(b) World Bank
(c) United Nations Environment Programme (UNEP)
(d) International Food Policy Research Institute (IFPRI)

- 22.** With reference to the Booker Prize, consider the following statements:
1. The prize was founded in 1969 in the United Kingdom and initially awarded to Commonwealth writers.
 2. The Booker Prize is conferred each year for the best novel written in any language.
- 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.** The Sankrit word '*Kutumb Prabodhan*' recently seen in the news, is related to which of the following?
- (a) Family Values (b) Hospitality
(c) Financial Management (d) Health and Wellness
- 24.** With reference to the World Toilet Organization (WTO), consider the following statements:
1. It is an independent non-profit organization founded in 2001 to address global sanitation issues.
 2. World Toilet Summit, World Toilet Day, and World Toilet College are key initiatives of this organization.
 3. It was granted consultative status with the United Nations Economic and Social Council in 2013.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2, and 3
- 25.** Which of the following is covered under Ustad Bismillah Khan Yuva Puraskar?
1. Music
 2. Dance
 3. Puppetry
 4. Drama
- Select the correct answer using the code given below:
- (a) 1 and 2 only (b) 2, 3 and 4 only
(c) 1, 3 and 4 only (d) 1, 2, 3 and 4
- 26.** With reference to State of the World's Children 2024 (SOWC-2024) report, consider the following statements:
1. It is released by the United Nations Population Fund (UNFPA).
 2. It examines major global forces impacting children's lives including population shifts, the climate crisis, and disruptive technologies.
- 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
- 27.** The Sami, Kvens, and Forest Finns, recently seen in the news, are distinct groups primarily associated with which of the following regions?
- (a) Central Asia (b) Latin America
(c) Central Africa (d) Northern Europe
- 28.** With reference to the President's Colours Award, consider the following statements:
1. It is the highest honor bestowed upon a military unit for outstanding service to the nation, both in peace and in war.

2. The Indian Army became the first amongst the three services to be presented with the President's Colour.

Which of the statements given above is/are correct?

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

EXPLANATIONS

1. (c)

Context: The D'Cunha Committee investigated alleged irregularities in COVID-19 management and procurement in Karnataka.

About:

- The committee highlighted issues in ventilator purchases under **PM Cares** and by the Karnataka Medical Supplies Corporation Ltd. (KSMSCSL).
- **Overpricing and rate variations** (₹5–₹16.25 lakh) in ventilator procurements and discrepancies in supply orders were also noted.

2. (b)

Context: The Department of Animal Husbandry and Dairying (DAHD) under the Ministry of Fisheries, Animal Husbandry and Dairying celebrated "National Milk Day" at Manekshaw Centre, New Delhi.

About:

- Observed annually on **November 26**, National Milk Day **commemorates the birth anniversary** of Dr. Verghese Kurien (1921-2012), hailed as the "Father of the White Revolution" in India.
 - The "White Revolution" in India refers to the successful implementation of **Operation Flood**, a dairy development program launched on **January 13, 1970**.
- Every year on the occasion of National Milk Day, the prestigious **National Gopal Ratna Awards** (one of the highest National awards in the livestock and dairy sector) is conferred.
- National Milk Day recognizes the dedication of dairy farmers and stakeholders, while also inspiring innovation and fostering stronger partnerships.

3. (b)

In News: Recently, the **World Bank**, in its report '**Jobs at Your Doorstep**' has emphasised the critical need for **India to adopt a coordinated approach** to skills development and employment to achieve **its ambitious \$5 trillion economy target**.

- It provides an extensive jobs diagnostic for young people in **six Indian states:** Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Rajasthan, and Odisha.
- It aims to **delineate the socio-economic, demographic, and employment landscape** of the six states and provides a preliminary skill and job diagnosis based on local requirements and demands.
- The report suggests the **need to broaden the definition of jobs and employment to include informal education** in academic curricula.

4. (a)

Context: Asiatic Lions – whose entire population numbering 674 is in Gujarat – co-exist with humans through mutual adaptation, enforced legal protection, economic drivers, and government compensation for livestock, among others, revealed new research released recently.

About: Asiatic lions

- Asiatic lions are **slightly smaller** than African lions.
- The Asiatic Lions have longitudinal skin folds on their belly, which are quite a unique character.
- They are **found only** in the Gir Forest, with population growth from 523 in 2015 to 674 in 2020.
- **IUCN Red List Status** : Endangered

5. (d)

Context: India has signed the **Riyadh Design Law Treaty (DLT)**, reaffirming its commitment to fostering inclusive growth and strengthening its **intellectual property (IP) ecosystem**.

About:

- The treaty, adopted after almost two decades of negotiations under the **World Intellectual Property Organization (WIPO)**.
- The treaty seeks to **harmonize the procedural frameworks for industrial design protection**, improving the efficiency and accessibility of registration processes across multiple jurisdictions.
- It ensures that the benefits of streamlined **design protection are accessible to all stakeholders**, with particular emphasis on small and medium-sized enterprises (SMEs), startups, and independent designers.

6. (b)

Context: Armenia has become the **104th 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.
- **Secretariat:** Gurugram.
- **Members:** Member Countries are countries which have signed and ratified the Framework Agreement of the ISA.
 - At present, **120 countries** are signatories to the ISA Framework Agreement.

7. (b)

Context: After Donald Trump's victory, social media in the US is seeing the rise of the '4B' movement, where women reject sex and marriage with men **to protest patriarchal and often misogynist institutions and practices**.

About: 4B Movement

- It was started in **South Korea** after the 'MeToo' and 'escape the corset' movements.
- 4B stands for the **four "Nos"**, B is a shorthand for no in Korean, and these are "biyeonae" (**no** dating men); "bisekseu" (**no** sex with men); "bihon" (**no** marrying men); and "bichulsan" (**no** having children).
- The **proponents of the 4B movement** believe that unless men work more actively for a gender-just society, women should not reward them with children, love, and emotional and other forms of labour.

8. (b)

Context: The **"Adaptation Gap Report 2024: Come Hell and High Water"** was released by the United Nations Environment Programme.

Adaptation Gap Report (AGR):

- It is an **annual publication** by the United Nations Environment Programme (UNEP).
- **Its purpose** is to assess global progress on climate change adaptation, i.e. the efforts made by countries to adjust and prepare for current and future climate impacts.
- **Adaptation gap** refers to the difference between the actual adaptation efforts being implemented and the adaptation needs required to mitigate the risks posed by climate change.

9. (d)

Under the Information Technology Act, 2000, and its subsequent amendments, all entities handling sensitive personal information or critical information infrastructure, including **service providers, data centers, and body corporates**, are **legally obligated to report cybersecurity incidents to the designated authorities**.

By mandating incident reporting, the government aims to:

- Promptly detect and respond to cyberattacks and data breaches.
- Facilitate information sharing between various stakeholders to enhance collective security.
- Learn from past incidents and develop better prevention and response mechanisms.
- Encourage organizations to adopt robust cybersecurity measures.

Therefore, all three entities mentioned in the question are required to report cyber security incidents.

10. (b)

Statement 1 is correct: The Olympic Games are a global sporting event that occurs **every four years**, with the **Summer and Winter Games alternating every two years**.

- **Origin:** The Olympic Games originated in **ancient Greece in the 8th century BCE**, and were held every four years in Olympia in honor of the **Greek god Zeus**.

Statement 2 and 3 are not correct: **The first modern Olympic Games were held in Athens, Greece, in 1896.**

- **China, South Korea and Japan** are the only 3 Asian countries to host the Olympics Games.

11. (b)

Sea foam is a natural phenomenon that occurs when organic matter, such as proteins, fats, and other surfactants from decaying marine organisms (like plankton and algae), mixes with seawater and is agitated by wind and waves. This agitation creates bubbles, which group together and form foam on the surface of the ocean. Seafoam is seldom seen in the open ocean as most areas do not support high concentrations of plankton, though there are spots where the right conditions for an organic bloom occur.

12. (d)

Context: Following a spike in food poisoning cases, **Telangana** has decided to ban the production, sale, and storage of all mayonnaise made from raw eggs for one year.

About: Telangana is the second state, after Kerala, to ban the Mayonnaise under the **provisions of the Food Safety and Standards Act 2006**.

What is Mayonnaise?

- Mayonnaise, commonly referred to as 'mayo,' is a thick, creamy dressing created by emulsifying egg yolk with oil and often flavoured with vinegar or lemon juice.
- It is widely used in a variety of dishes, including **momos**, sandwiches, salads, and has potential risk.
- Many countries have made pasteurized egg mandatory for this type of mayonnaise.

13. (b)

Context: The Indira Gandhi Prize for Peace, Disarmament and Development for 2023 was presented to Daniel Barenboim and Ali Abu Awwad.

About the Indira Gandhi Peace Prize:

- Instituted in **1986**, the award is given **annually** by the **Indira Gandhi Memorial Trust** and consists of a monetary award of Rs 25 lakh along with a citation.
- The award is named after Indira Gandhi, the **first and only woman** Prime Minister of independent India.
- It aims to honor women, men and institutions that have done exemplary work in the service of humanity and the planet Earth.
- Recipients are chosen from a pool of **national and international nominees**.
 - Last year it was jointly awarded to the **Indian Medical Association (IMA)** and the **Trained Nurses Association of India (TNAI)** as representatives of the COVID-19 warriors in the country.

14. (a)

Statement 1 is correct : High-altitude sickness, medically termed Acute Mountain Sickness (AMS), is a condition that occurs when the body struggles to adapt to reduced oxygen levels at elevations above 8,000 feet (2,400 meters).

Causes: At higher altitudes, lower air pressure reduces oxygen availability, leading to hypoxia (oxygen deprivation in body tissues).

Statement 2 is not correct : To prevent AMS, gradual ascent and medications such as **Acetazolamide and Dexamethasone are recommended**.

- Infrastructural issues in Himalayan regions, especially beyond major towns, hinder the management of high-altitude sickness.

15. (d)

Permanent Remission to convicts means **reducing or shortening the duration** of the sentence or allowing for an early release from prison, either based on good conduct, special circumstances, or under certain legal provisions.

Laxman Naskar versus Union of India (2000): Under it SC laid down the following guidelines for considering premature release:

- Whether the offence is an individual act of crime without affecting society at large;
- Whether there is any chance of future recurrence of committing a crime;
- Whether the convict has lost his potential to commit a crime;
- Whether there is any fruitful purpose of confining the convict any more;
- Socio-economic condition of the convict's family.

16. (c)**Prakash Singh judgment on police reforms:**

- In a landmark judgment, the Supreme Court in **2006** had directed all states and Union Territories to bring in **police reforms**.
- The ruling issued a series of measures that were to be undertaken by the governments to ensure the police could do their work without worrying about any political interference.

17. (d)

Kasturirangan Committee was established in **2013**, and was a 10-member committee led by **ISRO former Chairman Dr. Krishnaswamy Kasturirangan**.

- It was established to balance the competing needs of conservation and **development in the Western Ghats**.
- **Recommendations:** Recommended declaring only **37% of the Western Ghats region as an Ecologically Sensitive Area**.
- Focused on regulating development in identified sensitive areas while allowing more flexibility in other regions.
- Focused on core ecologically sensitive areas.
- Focused more on development balance and economic activities.
- Recognized the importance of sustainable livelihoods, but with less emphasis on forest rights.
- Argued for **strengthening the existing framework** of environmental clearances and setting up of a **state-of-the-art monitoring agency**.
- State governments and industries found it more balanced, though some environmentalists felt it was too lenient.

18. (a)

Context: The 3rd Rohini Nayar Prize was awarded to Anil Pradhan, a 28-year-old from Odisha, for his contribution to STEM education in rural India.

About:

- The **Rohini Nayar Prize**, established in memory of the late economist and administrator Rohini Nayar, is awarded annually to individuals, under the age of **40 years**, who have made outstanding contributions to **rural development** in India.
- The prize recognizes achievements in civil society, government, enterprise, or academia and awards a citation and **₹10 lakh** to the winner.

19. (b)

Key Recommendations of Bibek Debroy Committee:

- **Liberalisation of Indian Railways:** Introduce private players to enhance competition and improve services.
 - **Implementation:** Partially implemented. Some PPP projects have been initiated, but full-scale liberalization is yet to be undertaken.
- **Empowering Railway Officials:** Grant more autonomy to GMs and DRMs for decision-making.
- **Overhaul of Accounting System:** Implement accrual accounting to improve **financial transparency and accountability**.
- **Establishment of Rail Development Authority (RDA):** Create an independent regulator to oversee railway operations and promote competition.
- **Focus on Safety:** Create a dedicated fund for safety-related investments.
 - **Implementation:** The **Rashtriya Rail Sanraksha Kosh (RRSK)** was established for safety upgrades with a ₹1 lakh crore fund.
- Recommended modern technology, exemplified by **Vande Bharat trains and KAVACH systems**.

20. (d)

Context: Switzerland's contentious ban on facial coverings in public, commonly known as the "burqa ban," will officially take effect on January 1, 2025.

About

- Violators of the law could face fines of up to 1,000 Swiss francs (approximately Rs 96,280).
- The ban does not apply to planes or in diplomatic and consular premises, and faces may also be covered in places of worship and other sacred sites.

- Also, facial coverings will remain permitted for reasons relating to health and safety, for native customs, or due to weather conditions.

21. (a)

In News: Recently, the **Food and Agriculture Organisation (FAO)** of the United Nations has released '**The State of Food and Agriculture 2024**' (SOFA 2024).

- **The State of Food and Agriculture (SOFA) is an annual flagship report** published by the FAO of the United Nations that provides in-depth analysis and insights into key issues affecting global food and agriculture systems.
- It aims to present balanced, science-based assessments of critical topics related to food security, agricultural development, and rural livelihoods.
- **SOFA 2024 delves into the *true cost of food, emphasising the need for agrifood systems to be more inclusive, resilient, and sustainable.***
 - It **builds on the findings of the 2023 report**, exploring the use of true cost accounting to assess the economic, social, and environmental impacts of agrifood systems.

22. (a)

Context: Orbital by British writer Samantha Harvey has been named the winner of the Booker Prize 2024.

Booker Prize:

- It is a literary award **conferred each year** for the best novel written in the **English language**, and published in the United Kingdom (UK) and Ireland.
- The prize was **founded in 1969 in the UK** and initially awarded to the **Commonwealth writers**. However, now it spans the globe and is open to anyone regardless of origin.
- Last year's winner was Irish writer Paul Lynch for post-democratic dystopia "Prophet Song".

23. (a)

The Vice President of India emphasized the importance of focusing on '**Kutumb Prabodhan**' in **society**.

- **Kutumb means family** and Prabodhan means to get **enlightened**.
- It means strengthening of families and family values.
- The primary purpose is to instill sanskaras (values) in the younger generation through family bonds.
- The ultimate vision is to create a community / society with common **moral conduct and human values**.

24. (d)

World Toilet Organization (WTO):

- **Establishment:** It was founded on 19 November 2001 as a global non-profit to improve toilet and sanitation conditions worldwide.
- It was **granted consultative status** with the United Nations Economic and Social Council in 2013. It is not an agency of the United Nations.
- **Key Initiatives:** Established World Toilet Day and the World Toilet Summit in 2001.
 - Launched the World Toilet College in 2005.

25. (d)

In News : The Ustad Bismillah Khan Yuva Puraskar will be conferred on 82 young artists for the years 2022 and 2023 in a special ceremony on 22nd November 2024. Sangeet Natak Akademi

instituted the Ustad Bismillah Khan Yuva Puraskar (UBKUP) in the name of Bharat Ratna Ustad Bismillah Khan for young performing art practitioners upto the age of 40 years in 2006. **The Ustad Bismillah Khan Yuva Puraskar is given annually to outstanding young artists in the fields of music, dance, drama, folk & tribal arts and puppetry in a special ceremony** held in Delhi and also outside Delhi. The Yuva Puraskar carries a purse money of Rs 25,000/- (Rupees twenty-five thousand only), a plaque and an angavastram.

26. (b)

Statement 1 is not correct : UNICEF recently released The State of the World's Children (SOWC) report.

- It was first published in 1980, has significantly contributed to global child welfare
 - Each SOWC report examines critical issues impacting children, such as disabilities, conflict, child labour, urbanization, and early childhood development.

Statement 2 is correct : It provides a comprehensive analysis of global trends affecting children.

- The latest flagship report examines three major global forces impacting children's lives — **population shifts, the climate crisis and disruptive technologies.**
- **Climate and Environmental Hazards:** Nearly 1 billion children live in countries facing high climate and environmental risks.
 - Children are particularly vulnerable to pollution, extreme weather, rising temperatures, and diseases (e.g., malaria, dengue, and Zika).

27. (d)

Context: Norway's Parliament issued an unreserved apology for its past assimilation policies towards the Sami, Kven, and Forest Finn peoples, following a report by the Truth and Reconciliation Committee.

Who are the Samis, Kvens and Forest Finns?

- The **Sami** are an Indigenous people spread across **northern Europe**, including Finland, Sweden, Norway and Russia.
- **Kvens** are the descendants of migrants from the Torne River Valley, part of present-day **Sweden and Finland**, who historically practised slash and burn farming, fishing and blacksmithing.
- **Forest Finns**, meanwhile, are descendants of immigrants from **eastern Finland** who settled in **Sweden** in the 1500s, before making their way to **Norway** in the early 1600s.

28. (a)

Context: General Upendra Dwivedi, Chief of the Army Staff (COAS), presented the prestigious President's Colours to four battalions of the Mechanised Infantry.

About: President's Colours Award

- Also known as the President's Standard or Rashtrapati ka Nishaan, it is the highest honor that can be bestowed upon **any military unit** for its outstanding service to the nation, **both in peace and in war.**
- The Colours, which is a **ceremonial flag** bearing the unit's insignia and motto, are presented by the President, who is also the supreme commander of the armed forces, or, on her/his behalf, by the Chief of the Army Staff.
- The tradition began under colonial rule but, on 23 November 1950, the 'king's colour' of the erstwhile British Indian regiments were laid to rest in the **Chetwode Hall, Dehradun**, to make way for the 'colours' of the President of the Republic of India.
- Following this, the **Indian Navy** became the **first amongst the three services** to be presented with the President's Colour on 27 May 1951 by Dr. Rajendra Prasad.

