

DAILY MCQs COMPILATION
with
EXPLANATIONS

OCTOBER 2024

NEXT IAS

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HISTORY, ART & CULTURE

1. Consider the following statements with reference to the Dadasaheb Phalke Award:
1. The first recipient of the award was actress Devika Rani, who was honored in 1969.
 2. The award does not carry any monetary benefits.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
2. He was born in Mughalsarai, Uttar Pradesh. He developed a strong interest in India's freedom struggle, inspired by Mahatma Gandhi's denouncement of Indian Princes supporting British rule. At sixteen, he joined the Non-Cooperation Movement, which led him to abandon his studies. He then attended Kashi VidyaPeeth in Varanasi, where he was influenced by prominent nationalists. He held various positions in the Congress government, including Parliamentary Secretary and Home Minister in Uttar Pradesh, and later several portfolios in the Union Cabinet. He resigned as Minister for Railways after a major accident, showcasing his accountability and integrity.
- Who among the following personalities described above ?
- (a) Jawaharlal Nehru (b) Bal Gangadhar Tilak
(c) Lal Bahadur Shastri (d) Morarji Desai
3. Which of the following movements was Gandhi's first significant application of Satyagraha in India?
- (a) Champaran Satyagraha (b) Kheda Satyagraha
(c) Civil Disobedience Movement (d) Quit India Movement
4. Which of the following newspapers was NOT published by Mahatma Gandhi?
- (a) Harijan (b) Young India
(c) New India (d) Navajivan
5. Which among the following are the classical languages in India?
1. Marathi
 2. Bengali
 3. Prakrit
 4. Malayalam
 5. Tamil
- Select the correct answer using the code given below:
- (a) 1, 2 and 3 only (b) 2, 4 and 5 only
(c) 4 and 5 only (d) 1, 2, 3, 4 and 5
6. With reference to Raja Ravi Varma, consider the following statements:
1. Raja Ravi Varma was the first Indian painter to combine Western painting techniques with Indian mythological themes.

2. He primarily used watercolors for his paintings and gained recognition for portraying scenes from the Mahabharata and Ramayana.
3. In 1904, he was awarded the Kaiser-i-Hind Gold Medal by the British colonial government for his contributions to Indian art.

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 |

7. With reference to Shyamji Krishna Varma, consider the following statements:

1. He founded the Indian Home Rule Society and India House in London to carry out anti-British activities.
2. He was inspired by Veer Savarkar, who was also a member of India House in London.
3. He became the first President of Bombay Arya Samaj and was an admirer of Dayanand Saraswati.

Which of the statements given above is/are correct?

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

8. With reference to the Doddalathur Megalithic Site, consider the following statements:

1. The Doddalathur megalithic site is located in Chamarajanagar district, Karnataka, and was discovered by the Archaeological Survey of India in 1961.
2. Megalithic structures at the site are primarily memorials, and no burial structures have been identified.

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. With reference to Rani Durgavati, consider the following statements:

1. Rani Durgavati was a descendant of the Chandela dynasty of Mahoba and a contemporary of Mughal emperor Akbar.
2. She successfully defended her kingdom against an attack by Baz Bahadur, the ruler of Malwa, as mentioned in the Tarikh-i-Firishta.

Which of the statements given above is/are correct?

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

10. With reference to Brahmi inscriptions, consider the following statements:

1. The Brahmi script dates back to the Mauryan Period, is the precursor of several modern Indian scripts such as Devanagari, Tamil, Bengali, and Kannada.
2. Early Brahmi inscriptions were primarily written in Sanskrit, and later inscriptions were written in Prakrit.

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. He organised an "Azaad Dasta" (freedom brigade) to overthrow the British Rule through guerilla warfare. He advocated a program of social transformation, which he termed Sampoorna Kranti (total revolution). The Government of India posthumously awarded him Bharat Ratna. Which of the following personalities has been described above?
- (a) Sardar Vallabhai Patel (b) Khan Abdul Ghaffar Khan
(c) Jayaprakash Narayan (d) Maulana Abul Kalam Azad
12. He made significant contributions as Project Director to develop India's first indigenous Satellite Launch Vehicle (SLV-III) which successfully injected the Rohini satellite in near earth orbit in July 1980. He was responsible for the development and operationalisation of AGNI and PRITHVI Missiles. He led the weaponization of strategic missile systems and the Pokhran-II nuclear tests in collaboration with the Department of Atomic Energy, which made India a nuclear weapon State. Who among the following personalities is described above ?
- (a) Jagadish Chandra Bose (b) Vikram Sarabhai
(c) Homi Jahangir Bhabha (d) A.P.J. Abdul Kalam
13. Lord Buddha's teachings on Abhidhamma are originally available in which of the following languages?
- (a) Pali (b) Prakrit
(c) Sanskrit (d) Tibetan
14. 'The Causes of the Indian Mutiny' and 'Asar-us-Sanadid' are the literary works of
- (a) Mohammad Ali Jinnah (b) Maulana Abul Kalam Azad
(c) Sir Syed Ahmad Khan (d) Abdul Ghaffar Khan
15. The Mera Hou Chongba Festival 2024 was celebrated recently ,it is related to which of the following states ?
- (a) Arunachal Pradesh (b) Manipur
(c) West Bengal (d) Odisha
16. Which of the following statements regarding the Pali language are correct?
1. Pali is recognized as a Classical Language of India along with Prakrit, Assamese, and Marathi.
 2. The Tripitaka, written in Pali, is the sacred canon of Jainism.
 3. Important works in Pali include the Jataka Kathas, Dhammapada, and Abhidhamma Pitaka.
- Select the correct answer using the code given below:
- (a) 1 and 3 only (b) 1 and 2 only
(c) 2 and 3 only (d) 1, 2, and 3
17. 'Battle of Walong' is related to which of the following?
- (a) India - Pakistan War (b) Indian Rebellion of 1857
(c) Indo-China War (d) Anglo-Maratha War
18. Which among the following languages are recognised as classical languages in India?
1. Sanskrit
 2. Tamil
 3. Pali
 4. Odia
- Select the correct answer using the code given below:
- (a) 1, 2 and 3 only (b) 1 and 3 only
(c) 2, 3 and 4 only (d) 1, 2, 3 and 4

- 19.** With reference to the Bharatiya Adim Jati Sevak Sangh (BAJSS), which of the following statements is/are correct?
1. It was established in 1948 by Amritlal Vithaldas Thakkar.
 2. Dr. Rajendra Prasad, was designated as the Founder-President of BAJSS.
- 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
- 20.** With reference to the Thakkar Bapa, which of the following statements is/are correct?
1. In 1918, he played a crucial role in presenting the Compulsory Primary Education Bill to the Bombay Legislative Council.
 2. He was the author of the book, Tribes of 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.** Consider the following statements regarding Rani Chennamma and the Kittur Revolt:
1. Rani Chennamma adopted Shivalingappa as her son to continue the royal lineage, but the British refused to recognize him as the heir under the doctrine of lapse.
 2. The Kittur Revolt of 1824 is regarded as one of the earliest armed uprisings against the British East India Company, led by a woman.
- Which of the above statements is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 22.** With reference to the Najdi architectural style, consider the following statements:
1. It is one of the most prevalent architectural patterns in Saudi Arabia.
 2. Using locally available materials such as mud-brick and wood is a defining characteristic of this architectural style.
- 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.** Which of the following statements is not correct regarding Cheriya Art?
- (a) Cheriya Scroll Painting is a popular and modified version of Nakashi art.
 - (b) This art form shows a predominance of red color in the background.
 - (c) Cheriya scroll painting has received the Geographical Indication tag in 2007.
 - (d) This art form is unique to the state of Chhattisgarh.
- 24.** Sophia and Sandhya, are the literary works of which among the following personalities?
- (a) Aurobindo Ghosh (b) Bipin Chandra Pal
(c) Lala Hardayal (d) Brahma Bandhab Upadhyay
- 25.** Sohrai Painting, a traditional folk and tribal art form, is primarily associated with which region in India?
- (a) Telangana (b) Madhya Pradesh
(c) Jharkhand (d) Chhattisgarh

26. 'Satyarth Prakash' and 'Sanskar Vidhi' are the literary works of which among the following personalities?
- (a) Raja Ram Mohan Roy (b) Swami Vivekananda
(c) Ishwar Chandra Vidyasagar (d) Swami Dayanand Saraswati
27. In context of the history of India, Konark Wheels, an iconic feature of the Konark Sun Temple in Odisha, belong to reign of:
- (a) Narasimhadeva I (b) Narasimhavarman I
(c) Mahameghavahana (d) Satakarni I
28. Why is Raigad Fort referred to as the "Gibraltar of the East" by British historians?
- (a) Due to its strategic coastal location
(b) Because of its strong fortifications and defensive structure
(c) Its role in international trade during the Maratha rule
(d) Its unique architectural style similar to Gibraltar
29. The location of the Kumbh Mela keeps rotating among which of the following pilgrimages?
1. Kumbh Mela in Rishikesh 2. Kumbh Mela in Ujjain
3. Kumbh Mela in Puri 4. Kumbh Mela in Prayagraj
- Select the correct answer using the code given below:
- (a) 1, 2 and 4 only (b) 2, 3 and 4 only
(c) 2 and 4 only (d) 1, 2, 3 and 4

EXPLANATIONS

1. (a)

Context: Mithun Chakraborty will be honoured with the Dadasaheb Phalke Award for the year 2022.

- **Dadasaheb Phalke Award**
- It is India's **highest award** in the field of cinema, presented annually at the **National Film Awards ceremony** by the Directorate of Film Festivals, an organisation set up by the Ministry of Information and Broadcasting.
- The award is named after Dadasaheb Phalke (1870–1944), who is regarded as "**the father of Indian cinema**". He directed India's first feature film, Raja Harishchandra (1913).
- The award comprises a Swarna Kamal (Golden Lotus), a shawl and a **cash prize of Rs. 10 Lakhs**.
- The first recipient of the award was actress **Devika Rani**, who was honored in 1969.

2. (c)

Shri Lal Bahadur Shastri was born on October 2, 1904, in Mughalsarai, Uttar Pradesh. Despite a challenging childhood, Shastri developed a strong interest in India's freedom struggle, inspired by Mahatma Gandhi's denouncement of Indian Princes supporting British rule. At sixteen, he joined the Non-Cooperation Movement, which led him to abandon his studies. He then attended Kashi VidyaPeeth in Varanasi, where he was influenced by prominent nationalists. He earned the title "Shastri," which became synonymous with his name. He actively participated in the freedom struggle, leading campaigns and spending seven years in British jails, which contributed to his maturity and resolve. After India gained independence, Shastri's capabilities were recognized, and he held various positions in the Congress government, including Parliamentary Secretary and Home Minister in Uttar Pradesh, and later several portfolios in the Union Cabinet. His organizational skills

contributed significantly to the Congress Party's electoral successes in 1952, 1957, and 1962. He resigned as Minister for Railways after a major accident, showcasing his accountability and integrity.

3. (a)

About Mahatma Gandhi

- Mahatma Gandhi was born on **October 2, 1869**, in Porbandar, Gujarat.
- He was an **Indian lawyer, politician, social activist, and writer** who became the leader of the nationalist movement against the British rule of India.
- He played a crucial role in India's independence movement by leading **nonviolent protests** against British rule.
- **Role in freedom Struggle of India**
- **Champaran Satyagraha (1917)**: This was Gandhi's first significant application of Satyagraha in India, where he supported indigo farmers in Bihar against oppressive plantation systems.
- **Kheda Satyagraha (1918)**: Gandhi organized a non-violent movement to help farmers in Gujarat who were facing economic hardship due to crop failures and British taxation policies.
- **Non-Cooperation Movement (1920)**: Encouraged Indians to boycott British institutions and goods, which shook British authority.
- **Civil Disobedience Movement (1930)**: A peaceful protest against the British salt tax, where Gandhi marched 240 miles to make salt from seawater. This act of defiance became symbolic of India's resistance.
- **Quit India Movement (1942)**: A mass protest demanding an end to British rule, leading to widespread participation across India, especially among the youth.

4. (c)

Literary work of Mahatma Gandhi

- Hind Swaraj (1909)
- **Autobiography**: The Story of My Experiments with Truth
- **Newspapers**: Young India, Harijan, and Navajivan.
- **New India**
- It is an English-language daily newspaper that Annie Besant founded in 1914 to spread socialist views and highlight issues related to Indian independence.

5. (d)

The Union Cabinet has granted classical language status to Marathi, Pali, Prakrit, Assamese, and Bengali, increasing recognized classical languages to eleven.

- **India had six classical languages** — Tamil, Sanskrit, Telugu, Kannada, Malayalam, and Odia. Tamil was declared a classical language in 2004, Sanskrit in 2005, Kannada in 2008, Telugu in 2008, Malayalam in 2013, and Odia in 2014.
- All the Classical Languages are listed in the **Eighth Schedule of the Constitution**.

6. (a)

Raja Ravi Varma (1848-1906)

- **About:**
- Ravi Varma (1848–1906) was one of the **first Indian painters** to successfully adopt **Western painting techniques** and adapt academic realism to the visual interpretation of Indian mythology.

- **Background and History:**
- He was born into aristocracy at Kilimanoor in the erstwhile Travancore state of present-day Kerala.
- At the age of 14, Varma was patronised by Ayilyam Thirunal, the then ruler of Travancore.
- Later, Varma studied oil painting from British painter Theodore Jensen.
- **His work:**
- Raja Ravi Varma, also known as '**The Father of Modern Indian Art**' was an Indian painter of the 18th century who attained fame and recognition for **portraying scenes from the epics of the Mahabharata and Ramayana**.
- He painted the **picture of God and Goddess** that helped Dalits, who were prohibited from entering temples to know about the Gods.
- He used **oil paint colours rather than watercolours**.
- His works are the best examples for the fusion of European techniques with Indian sensibility.
- As a prolific artist, Raja Ravi Varma is believed to have made around 7,000 paintings before his death at the age of 58. His most **famous works** include **Damayanti Talking to a Swan, Shakuntala Looking for Dushyanta, Nair Lady Adorning Her Hair, and Shantanu and Matsyagandha**.
- **Awards and honours:**
- His 1873 painting, **Nair Lady Adorning Her Hair**, won Varma prestigious awards including the Governor's Gold Medal when it was presented in the Madras Presidency.
- In 1904, the British colonial government awarded Varma with the **Kaiser-i-Hind Gold Medal**. In 2013, a crater on the **planet Mercury** was named in his honour.
- According to the Guinness World Records, the most expensive **saree named 'Vivah Patu'** in the world is an 8-kg sari priced at Rs 40 lakh and pays tribute to his paintings.

7. (a)

Shyamji Krishna Varma (4th October, 1857 - 30th March, 1930) was a prominent Indian nationalist, freedom fighter, and revolutionary who played a significant role in India's independence movement from abroad.

- **Contributions:**
- Founded the Indian Home Rule Society and India House in London to promote nationalist activities and resist British rule.
- Inspired many revolutionaries, including Veer Savarkar, who was a member of India House.
- Published the journal "Indian Sociologist", an English monthly that spread anti-colonial ideas and advocated for India's independence.
- Became the first President of Bombay Arya Samaj and was deeply influenced by the teachings of Dayanand Saraswati.
- In 1905, he was barred from practicing law by the Inner Temple in London due to charges of sedition.
- Faced with criticism and pressure in England, he shifted his base to Paris, continuing his anti-British movement from there.
- **Values:**
- He embodied values of patriotism, courage, and selfless service in the fight for India's freedom.

8. (a)

In News: A team of history and archaeology scholars and students from the University of Mysore has begun an excavation of megalithic burial sites in the Chamarajanagar district.

- **Statement 1 is correct:** The Doddalathur megalithic site is located in Chamarajanagar district, Karnataka, and was discovered by C. Krishnamurti of Archaeological Survey of India, in 1961.
- **Statement 2 is not correct:** The site contains burial structures characterized by circles made of large boulders, not just memorials. The site corresponds to the Iron Age, dated between 1200 BC and 300 CE in South India.

9. (c)

Context: Rani Durgavati, the Queen of the Gond Kingdom of Garha-Katanga, was commemorated on her 500th Birth Anniversary on October 5.

- **About Rani Durgavati**
- Born in 1524 into the Chandela dynasty of Mahoba, she was the daughter of Raja Salbahan of Ratha and Mahoba.
- She was married to Dalpat Shah, son of Gond King Sangram Shah, who ruled over the powerful Garha-Katanga kingdom, spanning the Narmada Valley and parts of northern Madhya Pradesh.
- After Dalpat Shah's death in 1550, Rani Durgavati became regent for her young son, Bir Narayan, and ruled the kingdom with courage.
- According to Tarikh-i-Firishta Durgavati repulsed Baz Bahadur, the ruler of Malwa, who had attacked her kingdom between 1555 and 1560.
- She fiercely defended her kingdom against the Mughal Subedar Abdul Mazid Khan, dying on the battlefield.
- Later Akbar restored control of the region to Chandra Shah, the younger son of Sangram Shah, after he accepted Mughal suzerainty.

10. (a)

About Brahmi Inscription

- Brahmi is one of the **oldest writing systems of the Indian subcontinent**, dating back to the **Mauryan Period**.
- Early Brahmi inscriptions were typically **written in Prakrit**, an ancient language, though later inscriptions were written in Sanskrit.
- It is the precursor of many modern Indian scripts, including **Devanagari, Tamil, Bengali, Kannada**, and others.
- Brahmi inscriptions have been found in various regions of India, including Uttar Pradesh, Madhya Pradesh, Maharashtra, Tamil Nadu, and Andhra Pradesh.
- Brahmi played a key role in spreading Buddhist texts and inscriptions throughout South Asia and beyond, into Southeast Asia and Central Asia.

11. (c)

Context: Prime Minister Narendra Modi paid tributes to socialist stalwart and anti-Emergency movement icon Jayaprakash Narayan on his birth anniversary (October 11, 1902).

- **About: Jayaprakash Narayan**
- He organised an **"Azaad Dasta"** (freedom brigade) to overthrow the British Rule through guerilla warfare.
- After the partition of the country and the murder of Mahatma Gandhi, Jayprakash withdrew from Politics and joined **Bhoodan Movement** and **Sarvodaya campaign** launched by Vinoba Bhave in 1954.
- He advocated a program of social transformation, which he termed **Sampoorna Kranti** (total revolution).

- The Government of India posthumously awarded him **Bharat Ratna**, the highest civilian award of the country in 1999.

12. (d)

In News : Prime Minister pays tribute to Former President of India, Dr A P J Abdul Kalam on his birth anniversary.

- Dr. Avul Pakir Jainulabdeen Abdul Kalam was born on October 15, 1931, in Rameswaram, Tamil Nadu.
- He is known as the "Missile Man of India."
- **Major Contributions** : As Project Director, he developed India's first indigenous Satellite Launch Vehicle (SLV-III), successfully launching the **Rohini satellite in 1980**. Contributed to the PSLV configuration.
- He worked at DRDO, leading the Integrated Guided Missile Development Programme (IGMDP).
- Developed **AGNI and PRITHVI missiles** and focused on self-reliance in defense systems.
- He served as **Scientific Adviser to the Defence Minister**, overseeing the **Pokhran-II nuclear tests** that established India as a nuclear weapons state.
- He chaired the Technology Information, Forecasting and Assessment Council (TIFAC), **guiding experts to create a roadmap for India's development** into a developed nation.
- He served as **Principal Scientific Advisor** to the Government from 1999 to 2001, influencing policies and strategies for national development.
- **Literary Contributions**: Authored notable books, including "Wings of Fire," "India 2020," "My Journey," and "Ignited Minds," widely read and translated into many languages.

13. (a)

Context: Prime Minister Narendra Modi will participate in the celebration of International Abhidhamma Divas at Vigyan Bhavan in New Delhi.

- **About**
- Abhidhamma Divas commemorates **Lord Buddha's descent** from the celestial realm after delivering his teachings on the Abhidhamma, a core component of Buddhist philosophy.
- The recent recognition of **Pali as a classical language**, along with four other languages, enhances the significance of this year's Abhidhamma Divas celebrations as Lord Buddha's teachings on Abhidhamma are **originally available in Pali language**.

14. (c)

Context: Sir Syed Ahmed Khan's birth anniversary (October 17) was observed.

- **Sir Syed Ahmad Khan (1817-1898)**
- He was one of the foremost social and political reformers of modern India.
- In 1875, he founded the Muhammadan Anglo-Oriental (MAO) College, the first Muslim university in Southern Asia.
- **Literary works**
- In 1847 he published the book **Asar-us-Sanadid** documenting antiquities of Delhi dating from the medieval era.
- After the India Rebellion of 1857, he penned the booklet **The Causes of the Indian Mutiny**.

15. (b)

Mera Hou Chongba has been celebrated in Manipur since the time of Nongda Lairen Pakhangba, the God King of Manipur, in the first century AD.

- It is the only festival where both hill and valley indigenous communities are observed together in the state.
- It is aimed at strengthening the bond between indigenous communities in the hills and the valley of Manipur.

16. (a)

Statement 1 is correct: Pali is recognized as a Classical Language alongside Prakrit, Assamese, and Marathi.

- Statement 2 is not correct: The Tripitaka is the sacred canon of Buddhism, not Jainism.
- Statement 3 is correct: Important works in Pali include Jataka Kathas, Dhammapada, and the Abhidhamma Pitaka.

17. (c)

To mark the 62nd Anniversary of the Battle of Walong during the 1962 war with China, the Army is planning a month-long series of commemorative events.

- In October 1962, Chinese forces advanced into the eastern most parts of Arunachal Pradesh.
- Walong: Located near the tri-junction of India, China, and Myanmar, Walong was the only advanced landing ground (ALG) in the region.
- It was also a key supply route linking remote border posts.
- The Chinese offensive with more than 4,000 soldiers could not breach the forward defences held with 800 men for over 27 days.
- The Chinese Army was subsequently forced to employ an additional Division size force of approximately 15,000 soldiers.
- Despite the odds against it, the Indian troops fought till the last man, the last round.

18. (d)

Context: The Union Cabinet has granted classical language status to Marathi, Pali, Prakrit, Assamese, and Bengali, increasing recognized classical languages to eleven.

- **About**
- India had six classical languages — **Tamil, Sanskrit, Telugu, Kannada, Malayalam, and Odia.**
Tamil was declared a classical language in 2004, Sanskrit in 2005, Kannada in 2008, Telugu in 2008, Malayalam in 2013, and Odia in 2014.

19. (c)

Context

- President Droupadi Murmu attended an event on the completion of 75 years of the Bharatiya Adim Jati Sevak Sangh in New Delhi.
- **Bharatiya Adim Jati Sevak Sangh**
- It was established on October 24th, 1948 in Delhi by Thakkar Bapa (Amritlal Vithaldas Thakkar), with the objective of promoting the welfare of the tribal and marginalized communities in India.
- **Dr. Rajendra Prasad**, was designated as the **Founder-President of BAJSS.**

20. (c)

Context

- President Droupadi Murmu attended an event on the completion of 75 years of the Bharatiya Adim Jati Sevak Sangh in New Delhi.

- **Thakkar Bapa**
- **Amritlal Vithaldas Thakkar**, also known as Thakkar Bapa, was born on 29 November **1869** in Bhavnagar, **Gujarat**.
- **Early life:** He worked as an engineer for several years in India and abroad. Later he was inspired by Mahatma Gandhi and the values of truth and non-violence.
- **Contribution to freedom struggle:** Thakkar Bappa joined India's freedom struggle and became an ardent advocate for the welfare of underprivileged communities.
- **In 1918**, he played a crucial role in presenting the **Compulsory Primary Education Bill** to the Bombay Legislative Council.
- Thakkar Bappa was actively involved in setting up the **Harijan Sevak Sangh in 1932**.
- **Literary work:** He authored the book, **Tribes of India**, published in **1950**.

21. (c)

About Rani Chennamma

- She is celebrated as a freedom fighter and she symbolizes the independence movement in India.
- **Early Life :** Born on October 23, 1778, in Kakati, Karnataka, she was trained in martial skills from a young age.
- Married to Mallasarja Desai, king of Kittur, she became queen and had one son, who died in 1824.
- **Kittur Conflict with British:** After her son's death, she adopted Shivalingappa as her heir, but the British denied the adoption, leading to conflict.
- She led an armed rebellion against the **British East India Company in 1824**, opposing the **Doctrine of Lapse**.
- She led the battle, where British forces faced heavy losses.
- In a subsequent battle, Chennamma was outnumbered and ultimately captured by the British, leading to her imprisonment at Bailhongal Fort.
- **Death :** Rani Chennamma died in imprisonment on February 21, 1829.
- Her burial site is maintained and honored during Kittur Utsava and Kannada Rajyotsava.
- **Legacy:** Her resistance inspired plays, folk songs, and stories, becoming a symbol of bravery in the Indian freedom movement.
- Statues of Rani Chennamma were unveiled in various locations, including the Indian Parliament, and a train named after her connects Bangalore and Kolhapur.
- A film titled "**Kitturu Chennamma**" was produced, depicting her life and struggles.

22. (c)

Context: Saudi Arabia has officially commenced construction of the Mukaab — if completed, it is set to become the world's largest structure.

- **About**
- The Mukaab will be built using the modern **Najdi architectural style**, one of the most prevalent architectural patterns in **Saudi Arabia**.
- Najdi architectural style combines three main factors:
 - the need to respond to the hot desert climate,
 - the need for privacy in residential buildings, and
 - the need to use **locally available materials** such as mud-brick, stone and wood.

23. (d)

Context: During the 115th episode of 'Mann Ki Baat', Prime Minister Narendra Modi acknowledged D Vaikuntam, a folk artist, for his contributions to the Cheriyal Nakashi art form and his efforts to preserve the country's cultural heritage.

- **About: Cheriyal Art**
- Cheriyal Scroll Painting is a popular and modified version of **Nakashi art**, considered highly rich in the **local motifs**.
- This art form is unique to the state of **Telangana** and made mostly in Hyderabad currently.
- Cheriyal Painting is easily recognized by certain unique characteristics: These are painted in vivid hues with mostly **primary colors**, showing a predominance of **red color** in the background.
- Cheriyal scroll painting also received Intellectual Property Rights Protection, commonly called the Geographical Indication (GI) tag in the year **2007**.

24. (d)

Context: Recently, Brahma Bandhab Upadhyay's death anniversary was observed.

- **About: Brahma Bandhab Upadhyay**
- He was born on 11th February, 1861 in Khanyan village in Hooghly district of West Bengal.
- During the Swadeshi movement, he fought in the frontlines of national politics, along with Bipin Chandra Pal, Aswini Kumar Dutta, and Aurobindo Ghosh.
- He began his first journal **Sophia** in 1894 and **Sandhya** in 1904.
- Sandhya came into the radar of the government for its anti-British content. Charged with sedition, Brahma Bandhab Upadhyay was arrested and he refused to participate in the trials.
- Falling ill in prison, he was transported to Campbell hospital, where he died on **27th October, 1907**.

25. (c)

Context

- PM Modi presented a **Sohrai painting** to the Russian President Vladimir Putin during the BRICS summit.
- **About**
- **Sohrai Painting is a folk/tribal painting** tradition mostly practiced in the villages of **Jharkhand's Hazaribagh area**.
- **The colors** used in this picture (**red, black, yellow, and white**) are natural earth colors foraged from the wild or purchased from local merchants.
- **Chewing twigs** are used as paint brushes, while cloth rags are used to apply the base coat.
- **Theme:** The paintings are known for their **expressive storytelling**, depicting **animals, birds and nature**, which is a **reflection of the agrarian lifestyle** and the reverence for wildlife in tribal culture.
- The paintings depict a **matriarchal tradition** in which the art form is passed down as a legacy to daughters by their mothers.

26. (d)

Context: Recently, Swami Dayanand Saraswati's, the founder of Arya Samaj, death anniversary was observed.

- **Swami Dayanand Saraswati**
- He was born on February 12, 1824, at Tankara located in Gujarat.

- He was staunchly against rituals and superstitions. He stressed the importance of education for all children and preached respect and equal rights for women.
- He also preached against the giving of donations to priests.
- He wrote many books and his major contributions include: **Satyarth Prakash**, **Sanskar Vidhi**, and **Rigved Bhashyam**.
- He passed away on **October 30, 1883**.

27. (a)

In News: Recently, replicas of the Konark wheels, made of sandstone, have been installed at Rashtrapati Bhavan Cultural Centre and Amrit Udyan, aiming to showcase and promote India's historical legacy among visitors.

- The Konark Wheels, an iconic feature of the **Konark Sun Temple in Odisha**, a **UNESCO World Heritage Site**, represents the pinnacle of **Odishan temple architecture**.
- The temple was constructed in the **13th century by King Narasimhadeva I (1238-64 CE)**, the temple is designed in the **shape of a colossal chariot carrying the Sun God**.
- The chariot is adorned with **24 intricately carved wheels**, each about 12 feet in diameter, symbolising the passage of time and the cycle of life.

28. (b)

In News: The theme of the backdrop of this year's Rashtriya Ekta Diwas celebrations at Kevadiya, Gujarat is the Raigad Fort.

- **About**
- Raigad Fort is referred to as the **"Gibraltar of the East"** due to its strong defensive fortifications, similar to the **Rock of Gibraltar**, a well-fortified British naval base located at the entrance of the Mediterranean.
- This designation by British historians reflects the fort's strategic position and its formidable structure, making it difficult to breach.
- It is located atop a steep hill with surrounding valleys, Raigad Fort was a key military stronghold for the Maratha Empire and played a central role in defending against invasions.
- Its natural and built defenses enabled it to withstand significant attacks, making it comparable to Gibraltar in its ability to guard against enemies.

29. (c)

Kumbh Mela is a 45-day religious event that is held once in 12 years.

- Pilgrims come to bathe in sacred rivers, believing it purifies their sins and promotes spiritual liberation.
- The location of the Mela also **keeps rotating between four pilgrimages namely:**
- **Kumbh Mela in Haridwar** on the Ganges in Uttarakhand.
- **Kumbh Mela in Ujjain** on the Shipra River in Madhya Pradesh.
- **Kumbh Mela in Nashik** on the Godavari River in Maharashtra.
- **Kumbh Mela in Prayagraj** at the confluence of Ganga, Yamuna, and Saraswati in Uttar Pradesh.



ECONOMY

1. Which among the following are the core sector industries in India?

- | | |
|--------------------|----------------|
| 1. Automobile | 2. Electricity |
| 3. Food processing | 4. Fertilizer |
| 5. Cement | |

Select the correct answer using the code given below:

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

2. Consider the following statements

1. Geographical indications are only used for foodstuffs and agricultural products.
2. GI is governed by the World Trade Organisation's (WTO's) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).
3. The first product in India to be accorded with GI tag was Darjeeling tea.

How many of the above statements are correct?

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

3. With reference to the Oil Seed Production in India, consider the following statements:

1. India is the fourth largest oilseeds producer in the world, behind the USA, China, and Brazil.
2. Primary oilseed crops in India are Cottonseed, Rice Bran, and Tree Borne Oils.

Which of the statements given above is/are correct?

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

4. Consider the following statements with reference to the Foreign Exchange reserves or Forex reserves:

1. RBI is the custodian of the Foreign exchange reserves in India.
2. The biggest contributor to India's Forex reserves is gold followed by the foreign currency assets.

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 Dry Port, which of the following statements is/are correct?

1. It is a terminal located inland that connects to a seaport via rail or road.
2. It helps reduce congestion at seaports and improve logistics efficiency.

Select the correct answer using the code given below:

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

6. Which of the following is issued by registered foreign portfolio investors to overseas investors who want to be part of the Indian stock market without registering themselves directly?
- (a) Certificate of Deposit (b) Commercial Paper
(c) Treasury Bills (d) Participatory Note
7. With reference to the Monetary Policy Committee (MPC), consider the following statements:
1. It is constituted under section 452B of the amended Reserve Bank of India Act, 1934.
 2. The first MPC was constituted in the year 2016.
- 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 Indian rupee depreciation, which of the following statements is/are correct?
1. It makes Indian exports cheaper for foreign buyers, potentially boosting exports.
 2. It decreases the cost of essential imports like oil and machinery for the Indian economy.
- 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 among the following crops are covered under the Minimum Support Prices (MSP) in India?
1. Tur/arhar
 2. Rapeseed
 3. Jute
 4. Niger seed
 5. Safflower
- Select the correct answer using the code given below:
- (a) 1, 2 and 3 only (b) 2, 3 and 4 only
(c) 1, 4 and 5 only (d) 1, 2, 3, 4 and 5
10. With reference to the Textile Industry of India, which of the following statements is/are correct?
1. India has 10% share of the global trade in textiles and apparel.
 2. The textile industry in India contributes around 9% to the country's GDP.
- 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 Agriculture Cooperative Marketing Federation of India Ltd (NAFED), which of the following statements is/are correct?
1. It was established in 1958 with the objective to promote Co-operative marketing of agricultural produce to benefit the farmers.
 2. It comes under the Ministry of Cooperation, Government of 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
12. Coking coal, recently seen in the news, is primarily used in
- (a) Generation of electricity (b) Manufacturing of brick
(c) Production of fertilizer (d) Manufacturing of steel

EXPLANATIONS

1. (c)

Core industries are considered as main or key industries of the economy and serve as the backbone of all other industries.

- The **eight-core sector industries** include coal, crude oil, natural gas, refinery products, **fertiliser, steel, cement and electricity**.
- The **eight core industries** comprise 40.27% of the weight of items included in the **Index of Industrial Production (IIP)**.

2. (b)

In News : The Geographical Indications Registry in Chennai has granted GI tags to eight products from Assam, including traditional food items and rice beer varieties.

- **Statement 1 is not correct** : A GI is a name or sign for products linked to a specific geographical location, indicating traditional methods, specific qualities, or reputation tied to that origin.
- It is used for various products, including spirit drinks, foodstuffs, agricultural products, handicrafts, and industrial products.
- **Statements 2 and 3 are correct** : GI is governed by the WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and the Paris Convention for the Protection of Industrial Property.
- In India, it is administered under the Geographical Indications of Goods (Registration and Protection) Act, 1999, effective from September 15, 2003.
- First GI Tag in India awarded to Darjeeling tea in 2004-05.

3. (a)

Statement 1 is correct: India is the fourth largest oilseeds producer in the world, behind the USA, China, and Brazil.

- It has **20.8%** of the total area under cultivation globally, accounting for **10% of global production**.
- **Statement 2 is not correct**: Key primary oilseed crops are **Rapeseed-Mustard, Groundnut, Soybean, Sunflower, and Sesamum**.
- And the **secondary sources** are Cottonseed, Rice Bran, and Tree Borne Oils.

4. (a)

Context: India has become the fourth economy in the world to surpass 700 billion US dollars in foreign reserves, joining China, Japan, and Switzerland.

- **What is Forex Reserve?**
- Regarded as the health meter of a country, Foreign Exchange reserves or Forex reserves are assets such as foreign currencies, gold reserves, treasury bills, etc retained by a central bank or other monetary authority that checks the balance payments and influences the foreign exchange rate of its currency and maintains stability in financial markets.
- **RBI is the custodian** of the Foreign exchange reserves in India.
- The biggest contributor to India's Forex reserves is **foreign currency assets** followed by the gold, SDR, and reserve with the International Monetary Fund.

5. (c)

What is a Dry Port?

- A dry port is an **inland terminal** that is meant to provide connectivity to a sea port by rail or road, thus serving as a trans-shipping hub for sea cargo.

- Exporters and importers can complete customs procedures at the dry port, reducing congestion at seaports and avoiding delays.
- **Example:** Navi Mumbai Dry Port, connects to the Jawaharlal Nehru Port Trust (JNPT), one of India's largest ports.

6. (d)

Participatory Notes (P-Notes) are financial instruments used by foreign investors who want to invest in Indian stock markets without having to directly register with the Securities and Exchange Board of India (SEBI), which is the regulatory body overseeing India's securities markets.

7. (c)

Context: The central government has reconstituted the Monetary Policy Committee (MPC).

- **What is the Monetary Policy Committee?**
- Under Section 45ZB of the amended RBI Act, 1934, the central government is empowered to constitute a **six-member MPC** to determine the policy interest rate required to achieve the inflation target.
- The **first such MPC** was constituted on September 29, 2016.
- Section 45ZB says the MPC shall consist of the RBI Governor as its **ex officio chairperson**, the Deputy Governor in charge of monetary policy, an officer of the Bank to be nominated by the Central Board, and three persons to be appointed by the central government.

8. (a)

Context

- The Indian rupee has recently crossed the 84 mark against the US dollar, marking an all-time low.
- **About**
- **Currency depreciation** refers to the decline in the value of one country's currency relative to another currency.
- **Exports and Imports:** While a weaker rupee can **boost exports** by making Indian goods cheaper for foreign buyers, it also **raises the cost of imports**, particularly essential commodities like oil and machinery.

9. (d)

MSP is a form of market intervention by the Government to insure agricultural producers against any sharp fall in farm prices.

- The prices are announced by the Government at the **beginning of the sowing season for certain crops** on the basis of the recommendations of the **Commission for Agricultural Costs and Prices (CACP)**.
- **Crops Covered under MSP**
- **Kharif Crops (total 14)** like paddy, jowar, bajra, maize, ragi, **tur/arhar**, moong, urad, groundnut, soyabean, sunflower, sesamum, **niger seed**, cotton;
- **Rabi Crops (total 06)** like wheat, barley, gram, masur/lentil, **rapeseed** and mustard, and **safflower**;
- **Commercial Crops (total 02)** like **jute** and copra.
- MSP for Toria and de-husked coconut is also fixed on the basis of MSPs of rapeseed & mustard and copra respectively.

10. (d)

Textile Industry of India

- **Share in Domestic Trade:** The domestic apparel & textile industry in India contributes approx. **2.3 % to the country's GDP, 13%** to industrial production and **12%** to exports. **Hence Statement 2 is incorrect.**
- **Share in Global Trade:** India has a **4%** share of the global trade in textiles and apparel. **Hence Statement 1 is incorrect.**
- **Export:** In FY22, India was the **third largest** textile exporter globally, enjoying a 5.4% share.
- **Production of Raw Material:** India is one of the largest producers of cotton and jute in the world. India is also the 2nd largest producer of silk in the world and 95% of the world's hand-woven fabric comes from India.

11. (a)

Context: The Appointments Committee of the Cabinet (ACC) chaired by PM has appointed Deepak Agarwal as the new Managing Director of the National Agriculture Cooperative Marketing Federation of India Ltd (NAFED).

- **About NAFED**
- It was established on **October 2, 1958** with the objective to promote **Co-operative** marketing of agricultural produce to benefit the farmers.
- It is registered under the **Multi State Co-operative Societies Act** and comes under the **Ministry of Agriculture.**

12. (d)

Context: India's coking coal imports for the first six months of the current fiscal (April – September) were at a six-year-high at 29.6 million tonne (mt) with shipments from Russia witnessing a substantial rise of over 200% during this period.

- **Classification of Coal in India**
- In India coal is broadly classified into **two types – coking and non-coking.** The former constitutes only a small part of the total coal resources of the country.
- **Coking Coal :** Coking coal, when heated in the absence of air, form coherent beads, free from volatiles, with strong and porous mass, called coke. Coking coal has coking properties and is **mainly used in steel making** and metallurgical industries.
- **Non-Coking Coal :** Non-Coking Coal does not have coking properties and is mainly used for **power generation.** It is also used for cement, **fertilizer,** glass, ceramic, paper, chemical and **brick manufacturing,** and for other heating purposes.
- **Do you know?**
- India is the second largest producer of crude steel after China and the largest importer of coking coal.



INDIAN POLITY & CONSTITUTION

1. Which of the following statements is true about an Overseas Citizen of India (OCI)?
 - (a) OCI card holders are eligible to vote in Indian elections.
 - (b) OCI cardholders can apply for a PAN card in India.
 - (c) OCI cardholders can hold constitutional posts in India.
 - (d) OCI cardholders are allowed to visit all parts of India without any permit.

2. With reference to the The Prevention of Money-Laundering Act (PMLA), consider the following statements:
 1. It was enacted under Article 253 of the Constitution in 2002 to prevent money laundering.
 2. There are no provisions of bail under the Act under any circumstances.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. With reference to the Sixth Schedule of the Indian Constitution, consider the following statements:
 1. The Governor has the authority to create Autonomous District Councils (ADCs) and Autonomous Regional Councils (ARCs) in the states of Assam, Meghalaya, Tripura, and Mizoram.
 3. ADCs have the power to make laws related to forest management, inheritance, and social customs but do not have the authority to collect land revenue or impose taxes.Which of the statements given above is/are correct?
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2

4. Consider the following statements with reference to the Union Public Service Commission (UPSC):
 1. It is a constitutional body, mandated under Part XV of the Indian Constitution.
 2. The Chairman and other members of the UPSC are appointed by the President of India.Which of the statements given above is/are correct?
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2

5. The Election Commission of India is responsible for administering elections to which of the following?
 - (a) Lok Sabha and Rajya Sabha
 - (b) State Legislative Assemblies and State Legislative Councils
 - (c) Offices of the President and Vice President
 - (d) All of the above

6. Which of the following Articles of the Indian Constitution deals with Public Health?

- | | |
|-------------------|-----------------|
| 1. Article 39 (e) | 2. Article 42 |
| 3. Article 47 | 4. Article 243G |

Select the correct answer using the code given below:

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

7. With reference to the Cabinet Committee on Security (CCS), consider the following statements:

1. It is chaired by the Defence Minister.
2. The Minister of Finance and External Affairs are not a part of the CCS.
3. It is responsible for debates, discussions and appointments of/ in the national security bodies.

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

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

8. With reference to the National Commission for Backward Classes (NCBC), consider the following statements:

1. The NCBC was established under Article 338B of the Indian Constitution, inserted by the 102nd Constitutional Amendment Act, 2018.
2. The NCBC consists of a Chairperson, a Vice-Chairperson, and two other members.
3. The NCBC investigates and monitors matters relating to the constitutional safeguards for the socially and educationally backward classes and the recommendations of the NCBC are binding in nature.

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 |

9. Article 340 of the Constitution of India deals with which of the following?

- | | |
|-------------------------------------|---------------------------------------|
| (a) Federal Structure | (b) Official Language |
| (c) Commission for Backward Classes | (d) Public Service Commissions (PSCs) |

10. Which among the following decides on disputes among rival groups or sections of a recognised political party staking claim to its name and symbol?

- | | |
|-------------------------|-------------------|
| (a) Election Commission | (b) Speaker |
| (c) High Court | (d) Supreme Court |

11. Consider the following statements:

1. The words of the oath of allegiance for each post are not given in the Constitution of India.
2. For Chief Ministers (CMs) and Ministers at the state level, the Chief Justice of the High Court administers the oath.

Which of the statements given above is/are correct?

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

- 12.** With reference to the National Human Rights Commission (NHRC), which of the following statements is/are correct?
1. It is a constitutional body and has all the powers of the civil court.
 2. The Chairperson and the Members of NHRC are appointed by the President of 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.** Consider the following statements:
1. The Constitution of India does not mention any procedure for appointment of the Chief Justice of India.
 2. Seniority at the apex court is determined by age, not by the date a judge was appointed to the Supreme Court.
- 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.** With reference to the Standing Committee on Defence, consider the following statements:
1. It is constituted under Rule 331 C of the Rules of Procedure and Conduct of Business in Lok Sabha.
 2. The Committee was constituted for the first time in 1993.
 3. All the members of the committee are nominated from the Lok Sabha only.
- How many of the statements given above are correct?
- (a) Only one (b) Only two
(c) All three (d) None
- 15.** With reference to Public Interest Litigation (PIL) in India, consider the following statements:
1. The concept of PIL originated in India in the early 1980s and is an extension of the traditional rule of locus standi.
 2. Justice V.R. Krishna Iyer and Justice P.N. Bhagwati were pioneers in the introduction of PIL 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
- 16.** Consider the following statements:
1. The Doctrine of Basic Structure is a form of judicial review that is used to test the legality of any legislation by the courts in India.
 2. Secularism is a part of the Basic Structure of the Indian Constitution.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 17.** With reference to the National Commission for Women (NCW), which of the following statements is/are correct?
1. The NCW, a constitutional body, is empowered to work towards the advancement of women's rights.
 2. Its mandate includes reviewing the constitutional and legal safeguards provided to 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

18. Seventh Schedule of the Indian constitution deals with which of the following?

- (a) Administration and Rights of Tribal Areas
(b) Allocation of Seats in Rajya Sabha
(c) Distribution of Subjects under Three Lists
(d) Official Languages

19. Which of the following statements regarding the National Commission for Scheduled Castes (NCSC) is/are correct?

1. The NCSC is established under Article 338 of the Constitution of India.
2. The Chairperson and other members of the NCSC are appointed by the Prime Minister of India.
3. The tenure of the members of the NCSC is three years, and they can be appointed for more than two terms.

Select the correct answer using the code given below:

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

20. With reference to the Chief Justice of India (CJI), which of the following statements is/are correct?

1. CJI is appointed by the President of India under Article 124 of the Indian Constitution.
2. CJI can be removed on one of the grounds of proved misbehavior or incapacity.

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 National Disaster Management Authority (NDMA), which of the following statements is/are correct?

1. It is the apex statutory body for Disaster Management in India, established through the Disaster Management Act, 2005.
2. NDMA is headed by the Prime Minister of 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

22. With reference to the 'Arbitration and Conciliation', consider the following statements:

1. Arbitration is a form of alternative dispute resolution which is binding in nature.
2. Conciliation is a voluntary process where a neutral third party helps the disputing parties to reach a mutually acceptable agreement.

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

- It allows the Governor to create Autonomous District Councils (ADCs) and Autonomous Regional Councils (ARCs) in these states.
- Currently, the Sixth Schedule makes special provisions for the administration of tribal areas in the north-eastern states of **Assam, Tripura, Meghalaya, and Mizoram**.
- **Composition:** According to the Sixth Schedule, the ADCs administering a region within a state have **30 members** with a **term of five years**.
- **The Bodoland Territorial Council** in Assam is an exception to this with more **than 40 members** and rights to make laws on **39 issues**.
- **Jurisdiction:** Both ADCs and ARCs have legislative powers over subjects like forest management, agriculture, inheritance, marriage, and social customs. They also have the authority to collect land revenue, impose taxes, regulate trading, and collect royalties from mineral extraction.
- ADCs also have **powers to form courts to hear cases** where both parties are members of Scheduled Tribes and the maximum sentence is less than **5 years in prison**.

4. (b)

Context: On October 1st 1926, the Public Service Commission (now Union Public Service Commission) was set up on the recommendations made by the Lee Commission.

- **UPSC**
- The UPSC is a **constitutional body**, mandated under Article 315-323, **Part XIV** of the Constitution of India.
- It conducts more than 10 examinations every year, including the Civil Services Examination.
- It is headed by a Chairman and it can have a maximum of 10 members.
- **Appointment**
- As per **Article 316**, the Chairman and other members of the UPSC shall be **appointed by the President**.
- Members of the UPSC shall hold office for a term of **six years** or until they attain the age of sixty-five years, whichever is earlier.

5. (d)

Election Commission India

- **It was established** in accordance with the Constitution on **25th January 1950**.
- **Its powers, appointment and duties** are mentioned in **Part XV of the Constitution (Article 324 to Article 329)**.
- Additionally, its role is further elaborated under the **Representation of the People Act, 1950** and **Representation of the People Act, 1951**.
- **Responsibility:** The body administers elections to the Lok Sabha, Rajya Sabha, State Legislative Assemblies, State Legislative Councils and the offices of the President and Vice President of the country.

6. (d)

The Directive Principles of State Policy in Part IV of the Constitution provides a basis for the right to health.

- **Article 39 (e)** directs the state to secure the health of workers; **Article 42** emphasises just and humane conditions of work and maternity relief; and **Article 47** casts a duty on the state to raise the nutrition levels and standard of living, and to improve public health.
- The Constitution also endows the panchayats and municipalities to strengthen public health under **Article 243G**.

7. (a)

Statement 1 and 2 are not correct: Cabinet Committee on Security (CCS) is chaired by the Prime Minister, the CCS has the ministers for Finance, Defence, Home Affairs and External Affairs as its members.

- **Statement 3 is correct: Functions:** It is responsible for debates, discussions and appointments of/ in the national security bodies.
- Major decisions with respect to the significant appointments, issues of national security, defence expenditure of India are taken by CCS.
- Besides dealing with defence related issues, the CCS also brainstorms on issues relating to law and order and internal security, and policy matters concerning foreign affairs on security-related issues.
- It also considers matters relating to atomic energy.

8. (a)

Statement 1 is correct: The NCBC was established under Article 338B of the Constitution, through the 102nd Constitutional Amendment Act, 2018.

- **Statement 2 is not correct:** The NCBC consists of a Chairperson, a Vice-Chairperson, and three other members, not two.
- **Statement 3 is not correct:** The NCBC is empowered to examine and recommend requests for the inclusion or exclusion of communities in the list of Backward Classes and to advise the Union Government. However, the final decision on the inclusion or exclusion of a community in the list of Backward Classes rests with the Union Government, and the recommendations of the NCBC are advisory in nature.

9. (c)

Article 340 of the Constitution provides for the appointment of a Commission to investigate the conditions of and the difficulties faced by the socially and educationally backward classes and to make appropriate recommendations.

It was initially constituted by the Central Govt by the National Commission for Backward Classes Act, 1993 and so far the Commission had been reconstituted 7 times up to 2016.

- The present Commission (8th) has been accorded **Constitutional Status** and constituted through "**The Constitution (One Hundred and Second Amendment) Act, 2018**".
- **Article 338B** has been inserted, forming a Commission for the socially and educationally backward classes to be known as **National Commission for Backward Classes**.
- It consists of a **Chairperson, Vice-Chairperson and three other Members in the rank & pay of Secretary to the Govt of India**.

10. (a)

Context: Nationalist Congress Party (NCP) founder Sharad Pawar has filed a plea in the Supreme Court, seeking a direction to restrain the Ajit Pawar faction from using the 'clock' symbol in the upcoming assembly polls in Maharashtra.

- **About**
- **The Election Symbols (Reservation and Allotment) Order, 1968** empowers the Election Commission (EC) to recognise political parties and allot symbols. Under Paragraph 15 of the Order, it can decide disputes among rival groups or sections of a recognised political party staking claim to its **name and symbol**.
- Under Paragraph 15, the **EC is the only authority** to decide issues on a dispute or a merger. The Supreme Court upheld its validity in **Sadiq Ali and another vs. ECI** in 1971.

11. (d)

Both the statements are not correct: The oath-taking ceremony is the formal event that signifies a person assuming control of a post, and is associated with several government offices in India, such as that of the President, Cabinet Ministers and judges.

- The **words of the oath** of allegiance for each post are given in the Constitution of India.
- **For CMs and Ministers at the state level**, the **Governor** administers the oath.
- **For the Prime Minister and the Union Cabinet**, the President discharges the function.
- The oath of **office to the President** is administered by the Chief Justice of India.

12. (b)

Context: The Vice President of India Jagdeep Dhankhar will be the Chief Guest on the 31st Foundation Day of the National Human Rights Commission, India.

- **National Human Rights Commission (NHRC)**
- It is a **statutory** (and not a constitutional) body. It was established in 1993 under a legislation enacted by the Parliament, namely, the Protection of Human Rights Act, 1993.
- It is vested with the power to regulate its own procedure. It has all the powers of a **civil court** and its proceedings have a judicial character.
- It consists of a **Chairperson**, four full-time Members and four deemed Members.
- The chairperson and members are appointed by the **President** on the recommendations of a **six-member committee** consisting of the Prime Minister as its head, the Speaker of the Lok Sabha, the Deputy Chairman of the Rajya Sabha, leaders of the Opposition in both the Houses of Parliament and the Union Home Minister.

13. (a)

Context: Chief Justice of India (CJI) D.Y. Chandrachud has recommended Justice Sanjiv Khanna to the government for appointment as the 51st CJI.

- Appointment
- The Constitution of India does not mention any procedure for appointment of the CJI.
- As per convention, the 'senior-most judge' of the Supreme Court (SC) is generally designated as the CJI.
- Seniority
- Seniority at the apex court is determined not by age, but by the date a judge was appointed to the SC.
- If two judges are elevated to the Supreme Court on the same day,
- the one who was sworn in first as a judge would trump another;
- if both were sworn in as judges on the same day, the one with more years of high court service would 'win' in the seniority stakes;
- an appointment from the bench would 'trump' in seniority an appointee from the bar.

14. (b)

Statement 1 and 2 are correct: Standing Committee on Defence is constituted under Rule 331 C of the Rules of Procedure and Conduct of Business in Lok Sabha.

- The Committee was constituted for the first time in **1993**.
- It has the Ministry of Defence under its jurisdiction.
- **Statement 3 is not correct: Members:** It consists of 31 Members; 21 Members from Lok Sabha, nominated by the Speaker, and 10 from Rajya Sabha nominated by the Chairman.

15. (b)

- Public Interest Litigation (PIL) allows public-spirited individuals or organizations to seek judicial intervention on behalf of marginalized groups who cannot access the courts themselves.
- **Statement 1 is not correct:** While PIL was introduced in India in the 1980s, the concept originated in the USA in the 1960s.
- **Statement 2 is correct:** Justice V.R. Krishna Iyer and Justice P.N. Bhagwati played significant roles in the introduction and evolution of PIL in India.

16. (c)

Context: The Supreme Court recently said that secularism is an indelible and core part of the Basic Structure of the Indian Constitution.

- **About**
- The court made the oral observation while hearing a batch of petitions filed by former Rajya Sabha MP Subramanian Swamy and others challenging the inclusion of words 'socialist' and 'secular' in the Preamble of the Constitution.
- **What is the basic structure doctrine?**
- The **Doctrine of Basic Structure** is a form of **judicial review** that is used to test the legality of any legislation by the courts in India.
- Judicial review, rule of law, federalism, and **secularism** are examples of the 'basic structure' of the Indian Constitution.

17. (b)

Context: Vijaya Rahatkar took charge as ninth National Commission for Women (NCW) chairperson.

- **About**
- The National Commission for Women was set up as **statutory body** in January 1992 under the National Commission for Women Act, 1990 to
- review the **Constitutional and Legal safeguards** for women;
- recommend remedial legislative measures;
- facilitate redressal of grievances and
- advise the Government on all policy matters affecting women.

18. (c)

Seventh Schedule

- **Article 246** of Indian Constitution plays a crucial role in defining the **distribution of powers** between the Union government and the State governments.
- It prevents **overlapping or conflicting legislation**.
- **Three Lists:**
- **Union List:** Contains subjects on which only the Parliament can legislate. Examples include defense, foreign affairs, and atomic energy.
- **State List:** Contains subjects on which only the State Legislatures can legislate. Examples include police, public health, and agriculture.
- **Concurrent List:** Contains subjects on which both the Parliament and the State Legislatures can legislate. In case of a conflict, the **Union law prevails**. Examples include education, marriage, and bankruptcy.

19. (a)

In News: The Delhi High Court recently ruled that the National Commission for Scheduled Castes (NCSC) does not possess the authority to investigate or issue orders similar to those made by a civil or criminal court.

- **Statement 1 is correct:** The National Commission for Scheduled Castes (NCSC) is a constitutional body established under Article 338 of the Indian Constitution. It plays a crucial role in safeguarding the rights and interests of the Scheduled Castes (SCs) in India.
- **Statement 2 is not correct:** The President of India, not the Prime Minister, appoints the Chairperson and members of the NCSC.
- **Statement 3 is not correct:** The members hold office for a term of three years and cannot be appointed for more than two terms.

20. (c)

Context

- President Droupadi Murmu appointed Justice Sanjiv Khanna as the 51st Chief Justice of India.
- **Constitutional Provisions**
- The Constitution of India does not mention any procedure for appointing the CJI.
- **Article 124 (1)** of the Constitution merely says, "There shall be a Supreme Court of India consisting of a Chief Justice of India."
- **Clause (2) of Article 124** of the Constitution says that every Judge of the Supreme Court shall be appointed by the President.
- Thus, in the absence of a constitutional provision, the procedure to appoint CJI relies on convention.
- **Removal of CJI**
- A Judge of the Supreme Court shall not be removed from his office except by an order of the President passed after an address by each House of Parliament supported by a **majority of the total membership of that House and by a majority of not less than two-thirds of the members** of that House present and voting.
- With the address in the same session presented to the President for removal on one of the two grounds: **Proved misbehavior or incapacity.**

21. (c)

National Disaster Management Authority

- It is the apex statutory body for Disaster Management in India, established through the **Disaster Management Act, 2005.**
- The Act envisaged the creation of the NDMA, headed by the **Prime Minister**, and **State Disaster Management Authorities (SDMAs)** headed by respective **Chief Ministers**, to spearhead and implement a holistic and integrated approach to Disaster Management in India.

22. (c)

In News: In a significant move aimed at enhancing the efficiency of arbitration proceedings in India, the Department of Legal Affairs in the Union Law Ministry has introduced a Draft Arbitration and Conciliation (Amendment) Bill, 2024 to amend the Arbitration and Conciliation Act.

- **Statement 1 is correct**
- **Arbitration** is a form of **alternative dispute resolution** where the parties involved in a dispute agree to submit their conflict to one or more arbitrators.

- These **arbitrators are neutral third parties** who review the evidence, hear arguments, and then make a **binding decision on the matter**.
- The process is **less formal than a court trial** and is often faster and more flexible.
- **Statement 2 is correct**
- **Conciliation** is a voluntary process where a **neutral third party, known as the conciliator**, helps the disputing parties **to reach a mutually acceptable agreement**.
- Unlike arbitration, the **conciliator does not have the authority to impose a decision**. Instead, they **facilitate communication and negotiation** between the parties to help them resolve their differences.

23. (c)

Both the statements are correct: Election Expenditure Limit in India

- It is ₹95 lakh per Lok Sabha constituency in larger States and ₹75 lakh in smaller States.
- With respect to Legislative Assemblies, they are ₹40 lakh and ₹28 lakh for larger and smaller States respectively.
- These limits are set, from time to time, by the **Election Commission (EC)**.
- There are **no limits on the expenditure of political parties** during elections.



GEOGRAPHY

1. Little Prespa Lake, recently seen in the news, is situated on the border between
- (a) Iran and Turkey (b) Greece and Albania
(c) Albania and Serbia (d) Turkey and Greece
2. Consider the following countries:
1. France 2. Austria
3. Ukraine 4. Poland
5. Belarus
- Which of the following countries shares borders with Germany?
- (a) 1, 2 and 4 only (b) 1 and 3 only
(c) 2 and 5 only (d) 3, 4 and 5 only
3. With reference to the Alps Mountains, which of the following statements is/are correct?
1. The Alps were formed as a result of the collision between the African and Eurasian tectonic plates.
2. The Highest Peak of the Alps is Mont Blanc.
- 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. Chagos archipelago, recently seen in the news, is situated in which of the following Ocean?
- (a) Indian Ocean (b) Pacific Ocean
(c) Atlantic Ocean (d) Arctic Ocean
5. Consider the following statements with reference to the Arun River:
1. It is a transboundary river in the Himalayas, flowing through Tibet, Nepal, and India.
2. It originates from the Tibet Autonomous Region of China, where it is known as the Yaluzangbu.
- 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. Consider the following statements:
1. The Amazon River is the world's largest river by water volume and width, but the second-longest river after the Nile.
2. The Amazon River's watershed spans Brazil, Peru, Ecuador, Colombia, Venezuela, and Bolivia, with roughly two-thirds of the main stream located in Brazil.
3. During the wet season, the width of the Amazon River can expand up to 50 km.

Which of the statements given above are correct?

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

7. Falkland Islands and Gibraltar are the overseas territories of which of the following countries?

- (a) United Kingdom (UK)
- (b) The United States of America (USA)
- (c) France
- (d) Russia

8. Which of the following countries in Africa are part of the Sahara Desert?

- 1. Tanzania
- 2. South Africa
- 3. Morocco
- 4. Egypt
- 5. Tunisia

Select the correct answer using the code given below:

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

9. Consider the following countries:

- 1. Thailand
- 2. China
- 3. Vietnam
- 4. Malaysia

Which of the following countries shares borders with Laos?

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

10. Consider the following statements:

- 1. The Congo Basin contains the second-largest tropical forest in the world after the Amazon.
- 2. It is the largest carbon sink in the world, playing a critical role in absorbing carbon dioxide.
- 3. The Congo Basin is home to the world's largest desert peatlands, where waterlogged conditions allow full decomposition of plant material.

Which of the statements given above is/are correct?

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

11. Consider the following Countries :

- 1. Tunisia
- 2. Libya
- 3. Morocco
- 4. Niger

How many of the above share borders with Algeria?

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

12. With reference to Atmospheric Rivers, consider the following statements:

- 1. Atmospheric rivers are narrow corridors of concentrated water vapor that move moisture from the tropics toward higher latitudes.
- 2. These atmospheric phenomena can lead to heavy rainfall and flooding, particularly when they make landfall over coastal regions.

Which of the statements given above is/are correct?

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

20. Consider the following statements:

1. The Halmahera Sea is part of the western entry route of the Indonesian Throughflow (ITF), connecting the Pacific Ocean and the Indian Ocean.
2. Halmahera is the largest island in the Maluku Islands and is shaped in K letter.

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

21. Which of the following statements is true regarding Lake Kariba?

- (a) It is located exclusively in Zimbabwe and does not border Zambia.
- (b) It is the largest natural lake in Africa by volume.
- (c) Lake Kariba has no significant role in electricity generation for the region.
- (d) None of the above.

22. With reference to the India-China Borders, consider the following statements:

1. The western sector comprises Uttarakhand and Himachal Pradesh.
2. The eastern sector comprises Arunachal Pradesh and Sikkim.

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 Atlantic Meridional Overturning Circulation (AMOC), consider the following statements:

1. It is one of the tipping points critical for a system that influences the climate and ecology of the planet.
2. The collapse of AMOC may result in more heat in the tropical 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

24. Which of the following groups of countries all share a border with Kenya?

- (a) Somalia, Uganda, Rwanda, and Tanzania
- (b) Uganda, Sudan, Malawi, and Ethiopia
- (c) Tanzania, Zambia, Somalia, and Uganda
- (d) Tanzania, Uganda, Ethiopia, and Somalia

25. Which of the following are the favorable conditions for the formation of Tropical Cyclones?

1. Very Large Body of water
2. Presence of Coriolis force
3. Pre-existing low-Pressure circulation
4. Warm Sea temperature

Select the correct answer using the code given below:

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

34. Triton Island, recently seen in the news, is located in which body of water?

- (a) East China Sea
- (b) Yellow Sea
- (c) Sea of Japan
- (d) South China Sea

35. Consider the following countries:

- 1. Cameroon
- 2. Angola
- 3. Niger
- 4. Kenya
- 5. Mali

Which of the following countries shares borders with Chad?

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

EXPLANATIONS

1. (b)

Context: Plants and reeds have sprouted up as the waters of Little Prespa Lake on the Albanian-Greek border recede, their beauty overshadowing a painful truth: the lake is slowly dying.

- **About**
- The majority of Little Prespa Lake, also known as Small Lake Prespa, sits in Greek territory, with just its southern tip crossing into Albania. It is a smaller cousin of the larger Great Prespa Lake to the north.
- According to experts, of the 450 hectares of Little Prespa Lake in Albania, at least 430 hectares have been transformed into swamps or dried up.

2. (a)

Context: The 17th edition of the India-Germany Military Cooperation Sub Group (MCSG) meeting was recently held at Berlin, Germany.

- **About: Germany**
- No other country in Europe has as many neighbours as Germany.
- Germany shares its 3,767-kilometre land border with Denmark to the north; the Netherlands, Belgium, Luxembourg and **France** to the west; Switzerland and **Austria** to the south; and the Czech Republic and **Poland** to the east.
- **Capital:** Berlin



3. (c)

Context

- Switzerland and Italy have agreed to redraw a part of their national boundary, as melting Alpine glaciers shift the historically defined frontier.
- **Alps Mountains**
- The Alps Mountains are one of the most significant mountain ranges in Europe, stretching across eight countries—**France, Switzerland, Italy, Monaco, Liechtenstein, Austria, Germany, and Slovenia.**
- The Alps were formed millions of years ago as a result of the **collision between the African and Eurasian tectonic plates.**
- **Highest Peak:** Mont Blanc
- **Rivers like Rhine, Rhone, and Po** originate in the Alps.

4. (a)

Context: The United Kingdom (UK) announced that an agreement has been reached to hand over the Chagos Islands to Mauritius, ending decades of dispute and negotiation over Britain's last African colony.

- **Chagos Archipelago**
- The Chagos archipelago, **comprising 58 islands**, lies roughly 500 km to the south of the Maldives archipelago in the **Indian Ocean.**
- These islands were uninhabited until the late **18th century**, when the French brought in slave labour from Africa and India to work in newly-established coconut plantations. In 1814, **France ceded the islands to the British.**
- In 1965, the UK constituted the **British Indian Ocean Territory (BIOT)**, of which the Chagos Islands were a central part. A few other BIOT islands were later ceded to the Seychelles in 1976 after it gained independence from Britain.
- **Chagos was attached to Mauritius**, another British colony in the Indian Ocean, for administrative purposes. But when Mauritius gained independence in 1968, Chagos remained with Britain.



5. (a)

Context: A recent study suggests that Mount Everest's height may be increasing due to the erosion of the Arun River, located near the base of the Himalayas.

- **Arun River**
- **It is a transboundary river** in the Himalayas, flowing through **Tibet, Nepal, and India.**

- **It originates** from the Tibet Autonomous Region of China, where it is known as the **Phung Chu** or **Bum-chu River**.
- After flowing through Nepal, it joins the **Koshi River**, which eventually merges into the Ganges in India.

6. (d)

In News: Water levels hit record lows in the Amazon region.

- **Statement 1 is correct:** The Amazon River is the largest by water volume and width, but the second-longest after the Nile.
- **Statement 2 is correct:** Its journey begins high in the Andes Mountains and empties into the Atlantic Ocean on the northeastern coast of Brazil. Amazon River's watershed spans six countries (Brazil, Peru, Ecuador, Colombia, Venezuela, and Bolivia), with the majority of its basin and two-thirds of its main stream within Brazil.
- **Statement 3 is correct:** The Amazon River can expand up to 50 km in width during the wet season. Its notable tributaries include the Rio Negro, the Madeira River, and the Xingu River, among many others.

7. (a)

Gibraltar: It is a British overseas territory occupying a narrow peninsula of Spain's southern Mediterranean coast, just northeast of the Strait of Gibraltar that is claimed by Spain.

- The **Falklands**, home to just over 3,000 people, lie nearly 13,000 Km from London and some 480 Km from the coast of Argentina.
- Britain sent a military task force to reclaim the islands in 1982 after Argentinian troops invaded and claimed sovereignty.

8. (c)

Context

- The Sahara Desert in southeastern Morocco has experienced a rare deluge of rainfall, transforming it into a blue lagoon.
- **About Sahara**
- **Location:** It stretches from the **Red Sea in the east** and the **Mediterranean in the north to the Atlantic Ocean in the west**, where the landscape gradually changes from desert to coastal plains.
- To the south it is bounded by the **Sahel**, a belt of semi-arid tropical savanna.
- **It stretches across countries**, including Algeria, **Egypt**, Libya, Mali, Mauritania, **Morocco**, Niger, Western Sahara, Sudan, Chad, and **Tunisia**.

9. (b)

Context: Prime Minister Narendra Modi is in Laos for a two-day visit to attend the 21st ASEAN-India and the 19th East Asia Summit.

- **About: Laos**
- It is a **landlocked country** in the mainland Southeast Asia.
- The country is bordered by **China** to the north, **Vietnam** to the east, Cambodia to the south, **Thailand** to the west and Myanmar to the northwest.

- **Capital:** Vientiane



10. (a)

Statement 1 is correct: The Congo Basin is the second-largest tropical forest after the Amazon.

- **Statement 2 is correct:** It is the largest carbon sink in the world.
- **Statement 3 is not correct:** The Congo Basin is home to the world's largest tropical peatlands, not desert peatlands, and these peatlands prevent full decomposition of plant material due to waterlogged conditions. Peatlands are wetland ecosystems where waterlogged conditions inhibit the complete decomposition of plant material.

11. (d)

In News : President Droupadi Murmu is scheduled to attend various programmes in Algeria.

- **About**
- Algeria, officially The People's Democratic Republic of Algeria.
- It is a country in the Maghreb region of North Africa on the Mediterranean coast.
- It is bordered in the northeast by **Tunisia**, in the east by **Libya** and in the west by **Morocco**, in the southwest by Western Sahara, Mauritania, and Mali, in the southeast by **Niger**



- Its Arabic name, Al Jazair means the islands.
- **Political independence:** The country achieved political independence in 1962 after more than a century of colonial period.

12. (c)

Context: Atmospheric rivers are shifting toward higher latitudes, contributing to changes in global weather patterns.

- **Statement 1 is correct:** Atmospheric rivers are narrow corridors of concentrated water vapor that move moisture from the tropics toward higher latitudes. They play a critical role in replenishing water supplies.
- **Statement 2 is correct:** When atmospheric rivers make landfall, they can cause intense rainfall and flooding, especially in coastal areas.

13. (b)

India is wedged between the world's two largest areas of illicit opium production, the Golden Crescent and the Golden Triangle.

- **Golden Triangle**
- It includes the regions of **Myanmar, Laos, and Thailand**.
- It is Southeast Asia's main opium-producing region and one of the oldest narcotics supply routes to Europe and North America.
- **Golden Crescent**
- It includes Afghanistan, Iran, and Pakistan.
- It is a principal global site for opium production and distribution.

14. (c)

In News: A recent agreement on the fair use of water resources from the Nile River basin has come into effect, despite significant opposition from Egypt.

- **Statement 1 is correct:** The Nile River is indeed the longest river in the world and flows through 11 countries.
- **Statement 2 is not correct:** The White Nile does not originate from Lake Tana. Instead, the Blue Nile originates from Lake Tana in Ethiopia.
- **Statement 3 is correct:** The Blue Nile contributes the majority of the Nile's water, particularly during the rainy season.
- **Statement 4 is correct:** The Sobat River and the Atbara River are important tributaries of the Nile.

15. (d)

News: The discovery of living microbes in a 2-billion-year-old rock from South Africa's Bushveld Igneous Complex is a breakthrough in understanding of early life on Earth and the potential for life beyond our planet.

- About Bushveld Igneous Complex (BIC)
- Located in northeastern South Africa, it is one of the largest and most well-preserved layered igneous intrusions in the world.
- The BIC was formed about 2 billion years ago when magma from deep within the Earth's mantle slowly cooled beneath the surface, resulting in the formation of multiple layers of igneous rock.
- It contains around 70% of the world's mined platinum reserves, making South Africa the leading global producer of platinum.

16. (b)

Context: While addressing the India–Malawi Business Meet in Lilongwe, President Droupadi Murmu highlighted that India was one of the first countries to establish diplomatic relations with Malawi immediately after its Independence in 1964.

- About: Malawi
- It is a south-east African country bordered by Zambia to the west, Tanzania to the north and northeast, and Mozambique to the east, south and southwest.
- It is narrow and landlocked but has a 750-kilometre-long border with Lake Malawi (also called Lake Nyasa).
- The East African Rift Valley runs through the country from north to south.
- Capital: Lilongwe



17. (d)

MHWs occur when the surface temperature of a particular region of the sea rises to 3 or 4 degree Celsius above the average temperature for at least five days. MHWs can last for weeks, months or even years.

- **Causes of MHWs**
- **Climate Change:** As atmospheric temperatures rise, ocean temperatures also increase, leading to more frequent and intense heat waves.
- **Ocean Currents:** Changes in ocean currents influence local temperatures. For example, if warm water is transported to a specific region, it can lead to elevated sea surface temperatures.
- **El Niño and La Niña Events:** These climate phenomena significantly alter ocean temperatures.
- El Niño typically leads to warmer ocean conditions, which can trigger MHWs, while La Niña can have complex effects, sometimes leading to cooler temperatures in certain regions.
- **Local Environmental Changes:** Human activities, such as coastal development, pollution, and overfishing, alter local ecosystems and contribute to temperature increases.

18. (d)

Context: A new research by South African ecologists has refuted the claim that the African Baobab tree is dying due to climate change.

- **About: Baobab trees**
- **Characteristics:** Baobabs grow to a height of **5–25 meters** and have a trunk diameter of up to **14 meters**.
- **Their trunks are wide and bottle-shaped**, storing water for survival in arid environments.
- **Baobabs are deciduous**, losing their leaves in the dry season, and remaining leafless for about eight months of the year.
- There are **eight species** of baobab in the world, and they have a surprising distribution. Six are found in Madagascar, an island in the Indian Ocean; one is found on the continent of Africa; and the last is far away in Australia.
- It can live for over a **thousand years**.
- **Fruits:** Baobabs produce hard-shelled, oval fruits called which are rich in **vitamin C** and other nutrients.

19. (b)

Context: Recently, the centre has notified the international container transshipment port (ICTP) at Galathea Bay in Great Nicobar Island of Andaman & Nicobar Islands.

- **About the ICTP**
- Currently, nearly 75% of India's transshipped cargo is handled at ports outside India. Colombo, Singapore & Klang handle More than 85% of this cargo.

- The ICTP is about 40 nautical miles away from the Malacca Strait; a busy East - West trade route that caters around 35 percent of the annual global sea trade.
- Considering the strategic location and the availability of Natural water depth of 20m close to the shore, ICTP will allow India to participate more fully in the global shipping trade, creating employment opportunities and improving quality of life for current and future residents of Great Nicobar Island.

20. (b)

Context: According to the German Research Centre for Geosciences (GFZ), a 5.7 magnitude earthquake struck the Halmahera Sea in Indonesia.

- **Statement 1 is not correct:** The Halmahera Sea is part of the Eastern entry route of the Indonesian Throughflow (ITF), not the western entry route.
- **Statement 2 is correct:** Halmahera, also known as Jailolo or Gilolo, is the largest island in the Maluku Islands. The island is shaped in K letter.

21. (d)

Option (a) is not correct: Lake Kariba is located on the border of both Zambia and Zimbabwe.

Statement (b) is not correct: Lake Kariba is a man-made lake, not a natural one, and is the largest artificial lake by volume in the world.

Statement (c) is not correct: Lake Kariba plays a significant role in electricity generation for both Zambia and Zimbabwe, as the Kariba Dam supports hydroelectric power stations that provide energy to the region.

22. (b)

India considers the LAC to be 3,488 km long, while the Chinese consider it to be only around 2,000 km.

- **Statement 2 is correct: It is divided into three sectors:** the eastern sector which spans **Arunachal Pradesh and Sikkim**, the middle sector in **Uttarakhand and Himachal Pradesh**, and the western sector in **Ladakh**, Hence, the **Statement 1 is not correct.**

23. (c)

Scientists have issued a stark warning about the potential collapse of the Atlantic Meridional Overturning Circulation (AMOC). The collapse of the AMOC could have "devastating and irreversible" impacts, particularly on Nordic countries (Denmark, Iceland, Norway, Finland, and Sweden).

- **Atlantic Meridional Overturning Circulation (AMOC):** It is a **system of ocean currents** that circulates water within the Atlantic Ocean, bringing warm water north and cold water south and is part of a complex system of global ocean currents.
- **Statement 1 is correct: It is one of the tipping points** critical for a system that influences the climate and ecology of the planet.
- **Tipping elements in the Earth's climate system:** It includes long-term loss of major ice sheets on Greenland and in Antarctica, large-scale ecosystem shifts for the Amazon rainforest and northern evergreen forests, species loss for coral reefs, shrinking Arctic sea-ice, and **potential weakening of the AMOC** etc.
- **Statement 2 is correct:** Collapse of the AMOC will impact other tipping elements and climate systems globally.
- **The Amazon rainforest:** AMOC collapse means **more heat in tropics**; Amazon could either stabilise or turn dry.

- **Sahel/West African monsoon:** Impact on wind flow, ITCZ by AMOC collapse may hurt establishment of monsoon.

24. (d)

Context: With sourcing of cheetahs on agenda, a four-member delegation of the Union Environment Ministry and the National Tiger Conservation Authority (NTCA) is in Kenya to discuss finalisation of a memorandum of understanding (MoU) on wildlife conservation.

- **About: Kenya**
- It is bordered by South Sudan to the northwest, **Ethiopia** to the north, **Somalia** to the east, **Uganda** to the west, **Tanzania** to the south, and the Indian Ocean is located to the southeast.
- With its strategic location that borders the Indian Ocean, Kenya is considered as a strategic production and distribution base for Africa, Europe, the Middle East, South Asia and other Indian Ocean Islands.



25. (a)

Context

- According to the Indian Meteorological Department Cyclone Dana will intensify into a **severe cyclonic storm** and make landfall in West Bengal and Odisha coast.
- **Favorable Conditions for Tropical Cyclones**
- **Very Large Body of water:** It provides a continuous source of water to the storm.
- **Presence of Coriolis force:** It is caused by the Earth's rotation, and is responsible for giving the cyclone its characteristic circular motion.
- This force deflects the winds, making them spiral towards the low-pressure center of the storm.
- **Pre-existing low-Pressure circulation:** Tropical cyclones are defined by a low-pressure center, commonly referred to as the Eye of the Cyclone.
- Surrounding this eye, air converges, rises, and cools, leading to the formation of clouds and heavy rainfall.
- **Warm Sea temperature:** The warm surface water (above 26°C) heats the air above it, causing the air to rise and form the core of the storm.

26. (a)

Statement 1 is correct: Lake Erie is the warmest and most biologically diverse of all the Great Lakes of North America, partly due to its shallow depth.

- **Statement 2 is correct:** Lake Erie forms a boundary between Canada (north) and the United States (south, west, and east).
- **Statement 3 is not correct:** Niagara Falls is located on the Niagara River, which flows from Lake Erie to Lake Ontario, not the other way around.

27. (c)

Context

- Archaeologists have found the remains of two medieval cities, **Tugunbulak and Tashbulak**, in the mountains of eastern Uzbekistan on the Silk Route.
- **About**
- Traditionally, the Silk Route was associated with plains and river valleys, believed to be the most accessible paths for trade.
- However, these new cities in elevated parts of Uzbekistan suggest that traders also traversed more mountainous regions.

28. (d)

Great Lakes is the chain of deep freshwater lakes in east-central North America comprising Lakes Superior, Michigan, Huron, Erie, and Ontario.

- Lake Erie is one of the **five Great Lakes of North America** and is the **fourth** largest by surface area.
- It's bordered by the **United States to the south and Canada to the north**.



29. (c)

The Hasdeo Arand is referred to as the “lungs of Chhattisgarh”, with a wealth of biodiversity.

- According to the Indian Council of Forestry Research and Education (ICFRE), Hasdeo Arand is the **largest un-fragmented forest** in Central India consisting of pristine Sal (*Shorea robusta*) and teak forests.
- **Nine species** in Hasdeo-Arand Coalfield (HAC) have special protection under schedule I of the Wildlife Protection Act, 1972.

30. (b)

The TAPI Project (Turkmenistan-Afghanistan-Pakistan-India) is a proposed natural gas pipeline designed to transport gas from the Galkynysh Gas Field in Turkmenistan to South Asia, covering approximately 1,800 kilometers. Originating at the Galkynysh field—one of the world’s largest,

with reserves estimated between 4 to 14 trillion cubic meters—the pipeline passes through Afghanistan (via Herat and Kandahar), into Pakistan (through Quetta and Multan), and ends at Fazilka in India.

31. (a)

In News: Vadhvan Port Project Ltd has invited bids for near shore reclamation and shore protection works.

- **About**
- The Vadhvan Port project, located near Dahanu town in Palghar district, Maharashtra, is set to become India's 13th major port.
- Designed to become the **country's largest deep-water port**, this port will significantly bolster India's trade capacity and economic growth.
- The port will be constructed by Vadhavan Port Project Limited (VPPL), an SPV formed by a partnership between the Jawaharlal Nehru Port Authority (JNPA), holding 74%, and the Maharashtra Maritime Board (MMB), with 26%.

32. (b)

In News: Over 40 migratory birds died at Sambhar Lake in Rajasthan.

- **About Sambhar Lake**
- **Location:** About 80 km southwest of Jaipur in east-central Rajasthan and is India's **largest inland salt lake**.
- **Formation:** Formed in a depression of the **Aravalli Range**, it has a rich history, with its salt supply utilized by the **Mughal dynasty** and later jointly managed by the princely states of Jaipur and Jodhpur.
- **Ramsar Site:** Recognized as a wetland of **international importance** since 1990.
- **Salt Production:** The lake is a major salt producer, housing one of India's largest salt manufacturing units.
- **Biodiversity:** The area has **xerophytic vegetation** and is home to flamingoes, pelicans, and other waterfowl.

33. (b)

The Coral Triangle, often referred to as the 'Amazon of the seas', is a huge marine area spanning over 10 million square kilometres.

- It **includes countries** like **Indonesia**, Malaysia, Papua New Guinea, Singapore, the Philippines, **Timor-Leste**, and the Solomon Islands.
- This region is home to **76 percent of the world's coral species** and supports more than 120 million people who rely on its resources for their livelihoods.

34. (d)

Context

- Recent satellite imagery reveals a significant military buildup by China on Triton Island, the closest landmass in the disputed Paracels archipelago to Vietnam.
- **Triton Island**
- **Location:** Triton Island is the southernmost island in the Paracel Islands chain in the **South China Sea**, situated closer to Vietnam than to other parts of China.
- **Strategic Importance:** Triton Island is of strategic importance due to its proximity to vital shipping lanes, fisheries, and potential underwater energy reserves.

- **Conflicting Claims:** The Paracel Islands, including Triton Island, are claimed by **China, Vietnam, and Taiwan**.
- China asserts its claim based on the **Nine-Dash Line**, a demarcation on maps covering most of the **South China Sea**.

35. (b)

Context: In Chad's western Barkaram region, unidentified assailants recently attacked a military base, killing at least 40 soldiers.

About: Chad

- It is a landlocked country in north-central Africa.
- It is bordered by **Cameroon** in the south west, by the Central African Republic in south, by Libya in north, by **Niger** in west, by North Sudan in east and it has a border with Nigeria across Lake Chad.
- **Capital:** N'Djamena



GOVERNMENT SCHEMES/ INITIATIVES

1. Consider the following statements regarding BharatGen:
1. BharatGen focuses on developing multilingual and multimodal AI models to promote India's linguistic and cultural diversity.
 2. It is launched under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) of the Department of Science and Technology.
- Which of the above statements is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
2. 'Rashtriya Garima Abhiyaan' is a national campaign to:
- (a) rehabilitate the homeless and destitute persons and provide them with suitable sources of livelihood.
 - (b) release the sex workers from their practice and provide them with alternative sources of livelihood.
 - (c) eradicate the practice of manual scavenging and rehabilitate the manual scavengers.
 - (d) release the bonded labourers from their bondage and rehabilitate them.
3. With reference to the Swachh Bharat Mission (SBM), consider the following statements:
1. It was launched in 2014 with the goal of achieving universal sanitation coverage by 2019.
 2. SBM (Urban) 2.0 was launched in 2023 to ensure that treatment of both liquid and solid waste is achieved through the help of 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
4. With reference to PM Janjatiya Unnat Gram Abhiyan, consider the following statements:
1. The scheme aims to address gaps in social infrastructure across approximately 63,000 tribal villages.
 2. The scheme has the duration of 5 years.
 3. The PM GatiShakti Portal will be leveraged for monitoring the scheme's progress.
- Which of the statements given above is/are correct?
- (a) 1 and 3 only (b) 2 only
(c) 1 only (d) 1, 2, and 3
5. Consider the following statements with reference to the Pradhan Mantri-Kisan Samman Nidhi (PM-KISAN) scheme:
1. It is a Centrally Sponsored Scheme, launched in 2020.
 2. Under this scheme an amount of Rs. 6000/- will be transferred annually in three equal instalments.

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 Assam's Co-Districts initiative, consider the following statements:

1. Co-Districts are smaller administrative units below districts and are headed by an officer of the rank of Assistant District Commissioner.
2. The primary aim of Co-Districts is to enhance centralized governance and provide services at the district headquarters.

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. 'Prakash Tandon Committee' and 'Sam Pitroda Committee', recently seen in the news, is related to

- (a) Appointment of Judges (b) Civil Service Reforms
(c) Sub-Categorisation of OBCs (d) Railway Reforms

8. Consider the following statements with reference to the Ni-Kshay Poshan Yojana (NPY):

1. It is a central sector scheme under the National Health Mission.
2. All notified tuberculosis patients are beneficiaries of the scheme.

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. With reference to Ayushman Bharat Pradhan Mantri Jan Aarogya Yojana, which of the following statements is/are correct?

1. It provides health cover of Rs. 5 lakhs per family per year for Primary care hospitalization.
2. A beneficiary can avail cashless treatment in any empanelled public or private hospital 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

10. With reference to the Atal Pension Yojana (APY), consider the following statements:

1. The age of the subscriber should be between 18 - 40 years.
2. Subscribers receive a guaranteed minimum monthly pension after the age of 65, depending on their contributions.

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 AMRIT Pharmacies, which of the following statements is/are correct?

1. The initiative is launched by the Ministry of Chemicals & Fertilizers.
2. It provides generic and life-saving drugs, implants, and surgical consumables at subsidized rates.

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. With reference to “Samarth” (Scheme for Capacity Building in Textiles Sector), which of the following statements is/are correct?

1. The scheme is launched by the Ministry of Micro, Small and Medium Enterprises.
2. The scheme only focuses on reskilling programs to improve the productivity of existing workers in the textile sector.

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 Regional Connectivity Scheme (RCS) - UDAN (Ude Desh Ka Aam Nagrik), consider the following statements:

1. It was launched in 2016 aiming to improve infrastructure and connectivity in India.
2. The first UDAN flight took off in 2017, connecting Sikkim to New Delhi.
3. The scheme incentivizes airlines to connect underserved regions by offering them support through Viability Gap Funding (VGF).

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

14. With reference to the Pradhan Mantri Bhartiya Janaushadhi Pariyojana, consider the following statements:

1. The scheme is implemented by the Pharma & Medical Bureau of India (PMBI).
2. It aims to provide quality medicines free of cost to the masses through dedicated outlets.

Which of the following statements given above is/are correct?

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

15. Consider the following statements with reference to Pradhan Mantri MUDRA Yojana (PMMY)

1. It was launched in 2015 for providing loans up to Rs.50 Lakh to the non-corporate and micro enterprises.
2. Under it loans are offered only in two categories namely ‘Shishu’ and ‘Tarun’ .

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. The primary objective of the PM-YASASVI Scheme is to:

- (a) Establish new schools in rural areas for disadvantaged groups.
- (b) Provide scholarships exclusively to female students in remote regions.
- (c) Streamline educational support for socially and economically disadvantaged students.
- (d) Develop vocational training centers for underprivileged students.

17. The "YuvAI initiative for Skilling and Capacity Building" was recently launched in collaboration with which of the following entities?
- (a) Meta, Ministry of Youth Affairs and Sports, and NITI Aayog
 - (b) Meta, Ministry of Electronics and Information Technology (MeitY), and the All India Council for Technical Education (AICTE)
 - (c) Microsoft, Ministry of Education, and the All India Council for Technical Education (AICTE)
 - (d) Google, Ministry of Electronics and Information Technology (MeitY), and NITI Aayog
18. With reference to the Civil Registration System (CRS) mobile application, which of the following statements is/are correct?
1. The app aims to simplify the registration process for births and deaths in India.
 2. The app is launched by the Ministry of Home Affairs.
- 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 among the following has launched the Rajya Vishisht Yojana to reduce stubble burning incidents?
- (a) Delhi
 - (b) Punjab
 - (c) Uttar Pradesh
 - (d) Haryana

EXPLANATIONS

1. (c)

In News: "BharatGen" world's first government-funded multimodal LLM initiative launched by the Ministry of Science & Technology.

- **About BharatGen**
- **Aim:** To revolutionize public service delivery and enhance citizen engagement by developing foundational models in language, speech, and computer vision.
- **Implementation:** By IIT Bombay under the National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)
- **Key Features of BharatGen:**
 - Multilingual and multimodal foundation models.
 - Building and training based on India-centric datasets.
 - Open-source platform for fostering AI research and innovation.
 - The project is expected to be **completed by 2026**, with ongoing research, development, and scaling of AI applications.

2. (c)

Rashtriya Garima Abhiyaan is a national campaign in India focused on eradicating the practice of manual scavenging and rehabilitating manual scavengers. The initiative aligns with the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013, which seeks to outlaw manual scavenging in India. Manual scavenging refers to the practice of manually cleaning, carrying, disposing of, or handling human excreta from dry latrines and sewers, which is considered degrading and a violation of human dignity.

- Launched as part of broader efforts to eliminate this practice, the campaign promotes dignified livelihoods for individuals who have been engaged in manual scavenging and works toward their rehabilitation and empowerment.

3. (a)

Statement 1 is correct: The Swachh Bharat (Clean India) Mission (SBM) was launched in 2014 with the goal of achieving universal sanitation coverage by 2019, as a tribute to the 150th Birth Anniversary of Mahatma Gandhi.

- **Statement 2 is not correct: SBM (Urban) 2.0: Commenced in 2021 and is expected to run till 2026.**
- **Targets:** Sustaining the achievements of phase 1 and
- ensuring that treatment of both liquid and solid waste is achieved through the help of technology and private sector engagement.

4. (d)

PM Janjatiya Unnat Gram Abhiyan

- The PM Janjatiya Unnat Gram Abhiyan (PM-JUGA) is a comprehensive government initiative designed to bring development to tribal-majority villages in India. It aims to address critical gaps in social infrastructure, health, education, and livelihood development across approximately 63,000 tribal villages. The scheme is set for a duration of 5 years (from 2024-25 to 2028-29). The progress of the scheme will be monitored through the PM GatiShakti Portal to ensure timely implementation and accountability.

5. (b)

Context: Recently, Prime Minister Narendra Modi released the 18th instalment of the Pradhan Mantri-Kisan Samman Nidhi (PM-KISAN) scheme in Washim, Maharashtra.

- **PM-KISAN Scheme**
- Launched in **Feb. 2019**, it is a **Central Sector Scheme**, that aims at providing financial assistance to all cultivable landholding farmer families across the country, subject to certain exclusion criteria.
- Under the Scheme, an amount of **Rs. 6000/-** is transferred annually in **three equal installments of Rs.2000/-** directly into the Aadhaar Seeded bank accounts of the farmers.

6. (a)

In News: Assam has introduced a unique administrative reform with the launch of “co-districts”, effectively replacing the existing system of civil sub-divisions.

- **About**
- **Co-districts** are smaller administrative units below districts, headed by an officer of the rank of Assistant District Commissioner, and are tasked with carrying out powers and responsibilities similar to those of District Commissioners.
- The move is aimed at addressing administrative challenges and improving the efficiency of governance, with a focus on the vision of minimum government, maximum governance.
- **Co-district commissioners** will handle matters related to land, MLA funds, implementation of government schemes, and more, making these services accessible locally without visiting the district headquarters.
- This would be expected to **decentralize governance, enhance citizen-centric services,** and streamline development efforts across the state.

7. (d)

Context: Almost 5 yrs after introducing an ambitious reform, the Centre has made a U-turn on railway officers' recruitment policy.

- **About**
- In December, 2019, the Union Cabinet approved organisational restructuring of the Indian Railways by unification of eight Group-A services of the Railways into a Central Service called **Indian Railway Management Service (IRMS)**.
- The objective of the transformation was to end “departmentalism, promote smooth working of railways, expedite decision making, create a coherent vision for organisation and promote rational decision making.”
- However, after facing confusion in the appointment of railway officers and difficulties in finding suitable manpower for technical wings, the government has now decided to revert to the old system of hiring technical and non-technical manpower of Indian Railways through UPSC Engineering Services Exams (ESE) and UPSC Civil Services Exams (CSE), respectively.
- **Do you know?**
- The unification of services was recommended by various committees for reforming the railways, including the **Prakash Tandon Committee (1994)**, Rakesh Mohan Committee (2001), **Sam Pitroda Committee (2012)** and Bibek Debroy Committee (2015).

8. (b)

Context: The Union Health Ministry has doubled the monthly nutrition support under Ni-Kshay Poshan Yojana (NPY) for tuberculosis (TB) patients from existing Rs. 500 per month/patient to Rs. 1,000/month/patient for the entire duration of the treatment.

- **What is Ni-Kshay Poshan Yojana (NPY)?**
- It is a **centrally sponsored scheme** under National Health Mission (NHM), and **all notified TB patients** are beneficiaries of the scheme.
- It was **launched in 2018** and is implemented by the Ministry of Health and Family Welfare.
- The monetary assistance scheme is expected to **aid nutritional recovery**, improve response to treatment and outcomes and reduce mortality due to TB in India.

9. (b)

Ayushman Bharat Pradhan Mantri- Jan Arogya Yojana (AB PM-JAY)

- **AB PM-JAY** is the largest publicly funded health assurance scheme in the world which provides health cover of **Rs. 5 lakhs per family per year** for **secondary** and **tertiary care** hospitalization.
- **Coverage:** It covers up to **3 days** of pre-hospitalization and **15 days** of post - hospitalization expenses such as **diagnostics and medicines**.
- The beneficiary can visit any empanelled public or private hospital in India to avail **cashless treatment**.
- There is **no restriction** on the **family size, age or gender**.
- **Eligibility:** The inclusion of households is based on the deprivation and occupational criteria of the Socio-Economic Caste Census 2011 (SECC 2011) for rural and urban areas, respectively.
- This number also includes families that were covered in the **Rashtriya Swasthya Bima Yojana (RSBY)** but were not present in the **SECC 2011** database.

10. (a)

Context: Total enrolments under Atal Pension Yojana (APY) have crossed 7 crore, with over 56 lakh enrolments in FY 2024-25.

- **About Atal Pension Yojana (APY)**
- It was launched on 9th May 2015 and aims to offer universal social security, targeting the poor, underprivileged, and unorganised sector workers.

- It is administered by Pension Fund Regulatory and Development Authority (PFRDA) under the overall administrative and institutional architecture of the National Pension System (NPS).
- It provides a guaranteed pension for life to the subscriber, extends the same pension to the spouse after their demise, and returns the accumulated corpus to the nominee after both pass away.
- **Eligibility:** Open to bank account holders aged **18 to 40** who are not income taxpayers, with contributions varying based on the chosen pension amount.
- Subscribers receive a guaranteed minimum monthly pension of Rs. 1000, 2000, 3000, 4000, or 5000 **after the age of 60**, depending on their contributions.

11. (b)

Context

- South Eastern Coalfields Limited (SECL), subsidiary of Coal India, inaugurated the country's **216th** AMRIT Pharmacy.
- **About**
- AMRIT Pharmacies (Affordable Medicines and Reliable Implants for Treatment) is a government initiative launched by the **Ministry of Health and Family Welfare in 2015**.
- It provides a wide range of **generic and life-saving branded drugs**, implants, and surgical consumables at highly subsidized rates.

12. (d)

Context

- The Union government extended the Samarth Scheme for **two years** (FY 2024-25 and 2025-26) with a budget of **Rs. 495 Crore** to train 3 lakh persons in textile-related skills.
- **Samarth Scheme**
- Samarth is a demand-driven and placement-oriented umbrella **skilling program** of the **Ministry of Textiles**.
- **Scheme aims to** encourage and support the industry in creating jobs in the organized textile and related sectors, covering the entire value chain of textiles, excluding Spinning and Weaving.
- The scheme also **provides upskilling/reskilling programs** to improve the productivity of existing workers in Apparel & Garmenting segments.
- **Achievement:** Under the Scheme, **3.27 lakh** (in which **88.3%** is women) candidates have trained, of which **2.6 lakh (79.5%)** have been employed.

13. (c)

Statement 1 is correct: The Regional Connectivity Scheme (RCS) - UDAN (Ude Desh Ka Aam Nagrik) is a component of India's National Civil Aviation Policy (NCAP) 2016, launched by the Ministry of Civil Aviation (MoCA) in 2016, with a 10-year vision.

- It aims to **improve infrastructure and connectivity** in India, especially in remote and underserved regions.
- **Statement 2 is not correct:** The first UDAN flight took off in 2017, **connecting Shimla to New Delhi**.
- **Statement 3 is correct: A Market-Driven Approach:** Airlines assess demand on specific routes and submit proposals during bidding rounds.
- The scheme incentivizes airlines to connect underserved regions by offering them support through Viability Gap Funding (VGF) and various concessions.

14. (a)

In News : Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP) has reached a remarkable milestone by achieving sales worth one thousand crore rupees.

- **Statement 1 is correct : PMBJP** was launched in November 2008 by the Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers, Government of India. The scheme is implemented by the **Pharma & Medical Bureau of India (PMBI)**, a registered society.
- **Statement 2 is NOT correct: PMBJP** aims to provide quality generic medicines at affordable prices to all, particularly the underprivileged.
- **Implementation** : Dedicated outlets, known as Janaushadhi Kendras, are established to offer these medicines.

15. (d)

Statements 1 and 2 are not correct: The government has doubled the loan limit under the Pradhan Mantri Mudra Yojana (PMMY) to ₹20 lakh to enhance entrepreneurship in India.

- **Pradhan Mantri MUDRA Yojana (PMMY)** was launched by the Prime Minister on April 8, 2015 for providing loans up to Rs.10 Lakh to the non-corporate, non-farm small/micro enterprises.
- It aims to provide financial inclusiveness and support to the marginalized and hitherto socio-economically neglected classes.
- **Categories** : MUDRA loans are offered in three categories namely, 'Shishu', 'Kishore' and 'Tarun' which signifies the stage of growth or development and funding needs of the borrowers:-
- Shishu: covering loans upto Rs. 50,000/-
- Kishore: covering loans above Rs. 50,000/- and up to Rs. 5 lakhs
- Tarun: covering loans above Rs. 5 lakh and up to Rs. 10 lakh.
- A new "Tarun Plus" category will be introduced for loans ranging from ₹10 lakh to ₹20 lakh, specifically for eligible entrepreneurs.

16. (c)

The PM-YASASVI Scheme (Prime Minister's Young Achievers Scholarship Award Scheme for a Vibrant India) is a government initiative aimed at providing streamlined educational support for socially and economically disadvantaged students. This umbrella scheme focuses on delivering quality education to students from Other Backward Classes (OBCs), Economically Backward Classes (EBCs), and Denotified Tribes (DNTs).

17. (b)

Context

- IndiaAI and Meta have launched the Center for Generative AI, Srijan, at IIT Jodhpur, alongside the "YuvAI initiative" in partnership with AICTE.
- **YuvAi Initiative**
- Meta, in collaboration with MeitY and the **All India Council for Technical Education (AICTE)**, launched the **"YuvAi initiative for Skilling and Capacity Building"**.
- The program aims to **bridge the AI talent gap** in the country by empowering 100,000 students and young developers aged 18-30 to leverage open-source large language models (LLMs) to address real-world challenges.

18. (c)

Context

- **Union Home Minister** Amit Shah launched the **Civil Registration System (CRS) mobile application** to "integrate technology with governance".

- **Civil Registration System (CRS) App**
- The mobile app, prepared by the **Registrar General and Census Commissioner of India**, is expected to significantly reduce the time required for the registration of births and deaths.
- According to the **Registration of Births and Deaths (Amendment) Act, 2023**, all reported births and deaths in the country occurring from **October 1, 2023** are to be digitally registered.
- **The digital birth certificates** will be a single document to prove the date of birth for various services such as admission to educational institutions, government jobs and marriage registration.

19. (d)

Context: The Haryana government launched the Rajya Vishisht Yojana to reduce stubble burning incidents.

- **About Rajya Vishisht Yojana**
- Under this scheme, farmers receive financial support for managing crop residue.
- Panchayats are assigned zero stubble burning targets.
- **Features:** Red zone panchayats get an incentive of 1 lakh rupees for meeting the target.
- Yellow zone panchayats get an incentive of 50 thousand rupees for meeting the target.
- Farmers are given an incentive of 1,000 rupees per acre for paddy residue management.



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 National Security Guard (NSG), which of the following statements is/are correct?

1. It is one of the seven Central Armed Police Forces (CAPFs) and works under the Ministry of Defence.
2. It is modelled after elite forces such as Germany's GSG-9 and the United Kingdom's SAS.

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 best describes non-kinetic warfare?

- (a) The use of physical force or weapons to destroy enemy targets.
- (b) The use of cyber attacks and psychological operations to achieve military objectives without direct physical violence.
- (c) The deployment of ground troops for direct combat.
- (d) The use of naval or air forces to engage in large-scale battles.

8. Naseem-Al-Bahr, is a bilateral naval exercise between India and which one of the following countries?

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

9. INS Arihant and INS Arighaat, recently seen in the news, are

- (a) Frigates (b) Submarines
(c) Corvettes (d) Aircraft Carriers

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

Name of Exercise Participating countries

1. SIMBEX Sri Lanka
2. Bold Kurukshetra Kyrgyzstan
3. Agni Warrior Singapore

How many of the above pairs are correctly matched?

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

EXPLANATIONS

1. (b)

Statement 1 is not correct : The 8th edition of the India-Kazakhstan Joint Military Exercise, KAZIND-2024, commenced at the Surya Foreign Training Node in Auli, Uttarakhand, and will run until October 13, 2024.

- **Statements 2 and 3 are correct** : Exercise KAZIND is an **annual exercise**, which began in **2016**, aims to enhance joint military capabilities for **counter-terrorism** operations in sub-conventional scenarios, particularly in semi-urban and mountainous terrains.

2. (c)

All the statements are correct: Naxalism or Left Wing Extremism (LWE) is one of the major challenges to India's internal security.

- Naxal affected areas in India are known as the '**Red Corridor**'.
- The Naxal movement started with the **tribal-peasant uprising against landlords in Naxalbari village** of Darjiling district, West Bengal in **1967**.
- The uprising was led by leaders such as **Charu Majumdar, Kanu Sanyal and Jangal Santhal**.
- The States of **Chhattisgarh, Jharkhand, Orissa and Bihar** are considered **severely affected**.
- The States of **West Bengal, Maharashtra and Andhra Pradesh** are considered **partially affected**. The States of UP and MP are considered slightly affected.

3. (d)

All three statements are not correct.

- **Context:** Maritime Exercise Malabar 2024 is scheduled to take place from 08 to 18 October 2024, beginning with the Harbour Phase in Visakhapatnam, followed by the Sea Phase.
- **About**
- **Hosted by India**, this year's exercise will see the participation of Australia, Japan, and the United States of America.
- **Exercise Malabar**
- The Malabar series of exercises began as an annual bilateral naval exercise between India and the US in 1992. Japan joined the Naval Exercises in 2015. Malabar 2020 saw the participation of the Australian Navy also.

4. (b)

Statement 1 is not correct: There are nine countries recognized as possessing nuclear weapons.

- These countries are often referred to as "**nuclear-armed states**" or "**nuclear powers**."
- United States, Russia, China, United Kingdom, France, India, Pakistan, North Korea and Israel.
- **Statement 2 is correct: Operation Shakti:** In 1998, India conducted a series of nuclear tests at Pokhran, codenamed "Operation Shakti."
- These tests included both fission and fusion devices and marked India's formal entry into the nuclear weapons club.

5. (a)

Context

- A new deadly weapon known as the "**dragon drone**" has surfaced in the Russia-Ukraine war.
- **What are dragon drones?**
- Dragon drones release a substance called **thermite**, a **mixture of aluminum and iron oxide**, developed a century ago to weld railroad tracks.
- When ignited (with the help of an electrical fuse), thermite triggers a **self-sustaining reaction** that is quite difficult to extinguish.
- Dragon drones tend to be **low-flying** because thermite is more effective when it's in close contact with the target.
- It can **burn through almost anything**, from clothes to trees to military-grade vehicles, and can even burn underwater.
- On humans, it causes **severe burns and bone damage**.

6. (b)

Context: Prime Minister Narendra Modi has congratulated the National Security Guard (NSG) on their 40th raising day (16 Oct 1984).

- **About**
- Commonly known as the Black Cats, NSG is **one of the seven** Central Armed Police Forces (CAPFs) and works under the **Ministry of Home Affairs**.
- **Key Responsibilities:** counter-terrorism, hostage rescue, bomb disposal.
- **NSG's Global Influence:** The NSG is modelled after elite forces such as Germany's GSG-9 and the United Kingdom's SAS.
- **Motto:** Sarvatra Sarvottam Suraksha (Excellence in Security Everywhere).

7. (b)

Context: Indian armed forces' preparedness to deal with "hybrid warfare" is one of the 17 subjects that the Parliamentary Standing Committee on Defence has narrowed down for deliberations for the year.

- **What is 'non-kinetic warfare'?**
- Kinetic warfare typically means the military employing a range of weapons. While, **non-kinetic warfare** is an evolving concept, it goes beyond the usual military tactics and can involve **electronic warfare, cyber, information, psychological and economic** among others.
- Importantly, it can involve non-military stakeholders too. With technological progress, many believe that non-kinetic warfare can turn out to be deadlier than the traditional methods and conflicts may be won by non-kinetic means even before a bullet is fired.

8. (c)

Context: The Indian Navy and the Royal Navy of Oman recently concluded their bilateral naval exercise, 'Naseem Al Bahr' off the coast of Goa.

- **About**
- The exercise was conducted in **two phases:** harbour phase and the sea phase.
- **Naseem Al Bahr** epitomises the strong long term strategic relationship between the two countries.
- **Initiated in 1993**, the exercise has matured over the years with increasing scope, complexity of operations and level of participation.

9. (b)

Context: India's fourth nuclear-powered ballistic missile submarine (SSBN), referred to as S4* was launched in Visakhapatnam.

- **About**
- India currently has **two SSBNs operational**.
INS Arihant was commissioned into service in 2016.
- The second SSBN, **INS Arighaat (S3)** was commissioned in **August 2024**.
- The 3rd SSBN Aridhman (S4) is currently undergoing sea trials and is expected to be commissioned into service next year.

10. (a)

Context: The 31st edition of the Singapore India Maritime Bilateral Exercise (SIMBEX) began in the Eastern Naval Command at Visakhapatnam.

- **About**
- 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.
- SIMBEX 2024 will be conducted in **two phases** - the Harbour Phase at Visakhapatnam and the Sea Phase in the Bay of Bengal.
- This year's edition aims to further strengthen the strategic partnership between India and Singapore by enhancing interoperability, improving maritime domain awareness, and fostering cooperation to address common maritime challenges.
- **Do you know?**
- The Singapore Army and Indian Army conduct bilateral exercises **Bold Kurukshetra** and **Agni Warrior**.



5. With reference to the East Asia Summit (EAS), consider the following statements:
1. The East Asia Summit was established in 2005.
 2. All ASEAN member states are part of the EAS, along with major powers like the USA, China, India, Japan, and Russia.
 3. The East Asia Summit operates under the auspices of the United Nations, focusing exclusively on economic cooperation.

Which of the statements given above is/are correct?

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

6. Which of the following countries are members of the East Asia Summit?

- | | |
|-----------|-------------|
| 1. India | 2. Mongolia |
| 3. China | 4. USA |
| 5. Russia | |

Select the correct answer using the code given below:

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

7. Consider the following statements:

1. The Blue Line is a United Nations-recognized demarcation established to mark the withdrawal of Israeli forces from southern Lebanon in 2000.
2. The Blue Line is an internationally recognized border between Lebanon, Israel, and the Golan Heights.

Which of the statements given above is/are correct?

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

8. Which countries are part of the Five Eyes intelligence alliance?

- (a) United States, Canada, United Kingdom, Germany and Australia
- (b) New Zealand, Australia, Canada, United Kingdom and United States
- (c) France, New Zealand, United States, Canada and United Kingdom
- (d) United States, Canada, United Kingdom, Japan and Australia

9. Which among the following countries are the members of the Shanghai Cooperation Organisation (SCO)?

- | | |
|----------------|---------------|
| 1. Iran | 2. Belarus |
| 3. Afghanistan | 4. Tajikistan |

Select the correct answer using the code given below:

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

10. With reference to the European Sky Shield Initiative (ESSI), consider the following statements:

1. The ESSI was launched by Germany to build a unified air and missile defense system across Europe, with participation from both NATO and non-NATO members.
2. The initiative primarily focuses on short-range air defense systems like Iron Dome and Aegis Ballistic Missile Defense.

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 International Telecommunications Union (ITU), which of the following statements is/are correct?

1. It is the United Nations specialized agency founded in 1945.
2. It allocates global radio spectrum and satellite orbits to improve access to Information and Communication Technologies (ICTs).

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. Which of the following countries signed the agreements on 'Mutual Legal Assistance Treaty in Criminal Matters' with India?

- (a) Brazil (b) Germany
(c) South Africa (d) Saudi Arabia

13. With reference to the BIMSTEC, consider the following statements:

1. It is an international organisation of seven South Asian and Southeast Asian nations.
2. It was formed in 1997 through the Bangkok Declaration.

Which of the given above statements is/are correct?

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

14. Which among the following countries are the members of BRICS?

1. Egypt
2. Iran
3. United Arab Emirates

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

EXPLANATIONS

1. (a)

About Shanghai Cooperation Organisation (SCO)

- The SCO is a permanent intergovernmental international organisation.
- It is a Eurasian political, economic, and military organisation aimed at maintaining peace, security, and stability in the region.
- The SCO was created in 2001.
- The SCO Charter was signed in 2002 and came into force in 2003, outlining the organisation's goals, principles, structure, and core activities.
- The official languages of the SCO are Russian and Chinese.
- **Genesis of the SCO:**

- Before the formation of the SCO, Kazakhstan, China, Kyrgyzstan, Russia, and Tajikistan were members of the Shanghai Five, created in 1996 after a series of border demarcation and demilitarization talks to stabilize borders.
- Uzbekistan joined the organisation in 2001, leading to the renaming of the Shanghai Five to the SCO.
- India and Pakistan became members of the SCO in 2017.
- **Significance:**
- The SCO plays a major role in regional security, economic cooperation, and multilateral relations within the Eurasian region, promoting peace and collaboration among its members.

2. (a)

In News: Department of Posts, India has released commemorative postage stamps to mark the 150th anniversary of the Universal Postal Union.

- **Statement 1 is correct:** Universal Postal Union was established as the General Postal Union in 1874 through the Treaty of Bern.
- **Statement 2 is correct:** The Universal Postal Union is the second oldest international organization after the International Telecommunication Union (ITU), and its headquarters are in Bern, Switzerland.
- **Statement 3 is not correct:** The World Post Day is celebrated on the anniversary of the establishment of the Universal Postal Union, not the ITU.

3. (a)

Context: While attending the 21st ASEAN-India Summit, Prime Minister Narendra Modi announced a 10-point plan to strengthen India-ASEAN ties.

- **What is ASEAN?**
- The Association of Southeast Asian Nations, or ASEAN, was established on 8 August 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (**Bangkok Declaration**) by the Founding Fathers of ASEAN: **Indonesia**, Malaysia, **Philippines**, Singapore and **Thailand**.
- Brunei Darussalam joined ASEAN in 1984, followed by Viet Nam in 1995, **Lao PDR** and Myanmar in 1997, and **Cambodia** in 1999, making up what is today the ten Member States of ASEAN.
- **India's relationship with ASEAN**
- India began formal engagement with ASEAN in 1992 which was further upgraded to the (ASEAN-India annual summit) Summit level in 2002.
- Over the last 10 years, India's trade with the ASEAN region has nearly doubled, surpassing USD 130 billion. Also, ASEAN is considered central to India's 'Act East' policy.

4. (d)

About UNICEF

- **Genesis:** Established in 1946 by the UN General Assembly.
- **Headquarters:** New York, USA.
- **Mandate:** To advocate for children's rights, ensuring their basic needs are met and expanding opportunities for them to achieve their full potential.
- **Global Reach:** Works in more than 190 countries and territories to protect and promote children's rights.
- **Convention Support:** Plays a key role in supporting the Convention on the Rights of the Child, a landmark global human rights treaty.

- **Funding:** Entirely dependent on voluntary contributions from governments, intergovernmental organizations, and the private sector.
- **Notable Publication:** "State of the World's Children."
- **Awards:** Honored with the Nobel Peace Prize in 1965 for its humanitarian efforts.

5. (a)

Statement 1 is correct: The East Asia Summit was established in 2005 as a forum for dialogue on strategic, political, and economic issues.

- **Statement 2 is correct:** The EAS includes all ASEAN members, along with countries like the USA, India, China, Japan, Russia, Australia, and New Zealand.
- **Statement 3 not correct:** The EAS is not under the auspices of the United Nations, and its agenda includes a wide range of issues, not just economic cooperation, but also strategic and political matters.

6. (d)

Context

- The Prime Minister of India recently addressed the 19th East Asia Summit (EAS) in Vientiane, Lao PDR.
- **East Asia Summit (EAS)**
- **Origin:** The origins of EAS dates back to the 1990 proposal for an East Asian Economic Grouping (EAEG).
- The project was later revived through the **ASEAN Plus Three or APT (China, Japan, and South Korea)** Summit of Heads of State and Government that first met in Kuala Lumpur in December 1997.
- It eventually found expression through the creation of the **EAS in 2005**, with 16 members. The United States and Russia joined in **2011**.
- **Members:** There are 18 members;
- **The 10 ASEAN** (Association of Southeast Asian Nations) members: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.
- **8 non-ASEAN members:** Australia, **China, India**, Japan, New Zealand, **Russia**, South Korea, and the **United States**.

7. (a)

In News: The United Nations reported that Israeli forces have fired upon its peacekeepers stationed near the Blue Line.



- **About Blue Line**
- It is a **120-km United Nations-recognized demarcation**, established in 2000 to mark the withdrawal of Israeli military forces from southern Lebanon.

- It **separates Lebanon from Israel and the Golan Heights**, though it is not recognized as an official international border.
- The line is made of blue barrels and runs from the **Mediterranean to the Golan Heights**.

8. (b)

Context: The Five Eyes nations have backed Canada, urging India to cooperate with the Canadian legal process.

- **'Five Eyes' alliance**
- It is a multilateral intelligence-sharing network shared by over 20 different agencies of five English-speaking countries — **Australia, Canada, New Zealand, the United Kingdom and the United States**.
- Formed in the aftermath of **World War II**, the alliance was rooted in the UK-USA Agreement of 1946.
- The alliance is known for its comprehensive global surveillance capabilities, through various methods such as intercepting data from satellites, telephone networks, and fibre optic cables.

9. (b)

Kazakhstan, China, Kyrgyzstan, Russia and Tajikistan were members of the Shanghai Five.

- With the accession of Uzbekistan to the group in 2001, the Shanghai Five was renamed the SCO.
- Objective: To enhance regional cooperation for efforts to curb terrorism, separatism, and extremism in the Central Asian region.
- Members: China, Russia, India, Pakistan, Iran, Belarus and the four Central Asian countries of Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan.
- Observer status: Afghanistan and Mongolia.

10. (a)

In News: Switzerland has officially joined the European Sky Shield Initiative (ESSI).

- **Statement 1 is correct:** ESSI was launched by Germany and involves both NATO and non-NATO countries, such as Switzerland and Austria.
- **Statement 2 is not correct:** ESSI focuses on multi-layered defense systems, which include short-, medium-, and long-range air defense systems, but not specifically Iron Dome or Aegis.

11. (b)

Context

- The Union Communications Minister confirmed that the spectrum for satellite communication will be allocated administratively, rather than through an auction of airwaves.
- **International Telecommunications Union (ITU)**
- **It is the United Nations specialized agency** for Information and Communication Technologies (ICTs).
- **Founded in 1865** to facilitate international connectivity in communications networks.
- **India** has been a member of **ITU since 1869**.
- **Functions:** It allocates global radio spectrum and satellite orbits.
- It develops the technical standards that ensure networks and technologies seamlessly interconnect, and strive to improve access to ICTs to underserved communities worldwide.

12. (b)

In News: Recently, India and Germany signed multiple treaties, agreements on Mutual Legal Assistance Treaty in Criminal Matters and Indo-German Green Hydrogen Road Map, on the 7th India-Germany Intergovernmental Consultations.

- **About**
- **Mutual Legal Assistance and Security:** Several treaties were signed, including the **Mutual Legal Assistance Treaty in Criminal Matters** and an agreement on the exchange and mutual protection of classified information.
- These agreements aim to strengthen legal and security cooperation between the two countries.

13. (c)

BIMSTEC

- **Formation:** 1997 (**Bangkok Declaration**), an international organisation of seven South Asian and Southeast Asian nations.
- **Secretariat:** Dhaka, Bangladesh
- **Members:** Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand – are among the countries dependent on the Bay of Bengal.
- Leadership is **rotated in alphabetical order** of country names.
- **Focused Sectors:** Initially focused on **six sectors in 1997** (trade, technology, energy, transport, tourism, and fisheries), later, expanded in 2008.
- **Purposes:** To promote **active collaboration and mutual assistance** on matters of common interest in the **economic, social, technical and scientific fields**.
- To maintain peace and stability in the Bay of Bengal region.
- To establish multidimensional connectivity, and promote synergy.

14. (d)

BRICS is an acronym that refers to a group of five major emerging national economies: Brazil, Russia, India, China, and South Africa.

- Later, **Egypt, Ethiopia, Iran, and the United Arab Emirates** were admitted as member states.
- The term was originally coined by economist **Jim O'Neill in 2001**.
- **Summits:** The governments of the BRICS states have met annually at formal summits **since 2009**.
- BRICS countries come together to deliberate on important issues under the **three pillars** of:
 - political and security,
 - economic and financial and
 - cultural and people-to-people exchanges.



SCIENCE & TECHNOLOGY

1. Consider the following statements with reference to the Fluorescent nanodiamonds (FNDs):
1. They are nanometre-sized diamonds made of carbon nanoparticles, produced in a high temperature and high pressure process.
 2. FNDs are stable under light and are not toxic to living things.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
2. Which of the following statements is not correct regarding Human immunodeficiency virus (HIV) and Acquired immunodeficiency syndrome (AIDS)?
- (a) AIDS is a term that applies to the most advanced stages of HIV infection.
 - (b) HIV is not spread by kisses, hugs or sharing food.
 - (c) There is no cure for AIDS till now.
 - (d) None of the above.
3. Consider the following statements:
1. Pluto was reclassified as a dwarf planet in 2006 after the discovery of other similar objects in the Kuiper Belt.
 2. Charon is Pluto's largest moon, and they engage in a unique orbital dance where both bodies rotate around a central point, making them resemble a double dwarf planet system.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
4. Consider the following statements:
1. Superbugs are bacteria that are resistant to several types of antibiotics.
 2. Antibiotics are medications that destroy or slow down the growth of bacteria and viruses.
 3. Alexander Fleming discovered penicillin, the first natural antibiotic, in 1928.
- How many of the statements given above are correct?
- (a) Only one (b) Only two
(c) All three (d) None
5. With reference to Asteroids, which of the following statements is/are correct?
1. They are remnants of the solar system's formation, composed primarily of rock and metal.
 2. The majority of asteroids are found between the orbits of Mars and Jupiter.
- 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 Ultrasound, which of the following statements is/are correct?
1. Ultrasound operates at frequencies above 20,000 hertz (20 kHz), which are inaudible to humans.
 2. Doppler ultrasound measures blood flow through blood vessels.
- 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. Consider the following statements with reference to The Major Atmospheric Cherenkov Experiment (MACE) Observatory .
1. It is an indigenous project built by Bhabha Atomic Research Centre (BARC).
 2. It is Asia's largest imaging Cherenkov telescope which was inaugurated in Ladakh.
 3. It is the highest Cherenkov telescope in the world, situated at an altitude of ~4,300 m.
- How many of the above statements are correct?
- (a) Only one (b) Only two
(c) All three (d) None
8. Which of the following statements is not correct regarding Trachoma?
- (a) It is caused by the bacterium *Chlamydia trachomatis*.
 - (b) It is a contagious disease and if left untreated it causes irreversible blindness.
 - (c) WHO has termed Trachoma as a neglected tropical disease.
 - (d) India has eliminated Trachoma as a public health problem becoming the first country in the South-East Asia Region to achieve this milestone.
9. With reference to the Silicosis, consider the following statements:
1. It is a lung disease caused by inhaling fine silica dust, often found in industries such as mining, construction, and stone cutting.
 2. It can be cured by medical therapy.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
10. With reference to Proteins, consider the following statements:
1. They are large, complex molecules that play many critical roles in the body.
 2. They are made up of smaller units called amino acids, which are linked together in long chains.
 3. There are 15 different types of amino acids, and the specific sequence in which they are arranged determines the protein's structure and function.
- How many of the statements given above are correct?
- (a) Only one (b) Only two
(c) All three (d) None
11. Consider the following statements with reference to Synthetic Medical Image.
1. It is generated by computer algorithms without being captured by traditional imaging devices.
 2. It allows intra- and inter-modality translation, helping generate missing scans from available data.

Which of the statements given above is/are correct?

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

12. With reference to the Murine Typhus, consider the following statements:

1. It is an infectious disease caused by the flea-borne virus Rickettsia typhi.
2. It can be prevented through vaccination.

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

13. Which of the following statements best describes orphan drugs?

- (a) These are no longer manufactured due to lack of commercial profitability.
- (b) These are medications used to treat rare diseases.
- (c) These are used for the treatment of infectious diseases in developing countries.
- (d) These are medications used to treat a variety of common illnesses.

14. With reference to Auroras, consider the following statements:

1. Auroras occur due to the interaction between solar winds and the Earth's magnetic field.
2. Auroras are visible primarily in polar regions due to the concentration of the Earth's magnetic field near the poles.
3. Auroras are observed as bright lights in the atmosphere and are commonly referred to as Northern Lights in the Southern Hemisphere.

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

15. The primary objective of NASA's Europa Clipper mission is:

- (a) To search for extraterrestrial life on Jupiter's moon Europa.
- (b) To study the geology of Europa's icy surface.
- (c) To determine whether Europa has conditions that could support life.
- (d) To explore the possibility of human colonization on Europa.

16. The Haber-Bosch process is used for which among the following?

- (a) Synthesis of ammonia (b) Extraction of oxygen
(c) Production of ethanol (d) Electrolysis of water

17. With reference to Diphtheria, consider the following statements:

1. It is an infectious disease caused by a bacterium Corynebacterium diphtheriae.
2. It makes a toxin that kills healthy tissues in the nervous system.
3. There is no vaccination available for it.

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

18. What is the primary objective of NASA's Europa Clipper mission recently seen in the news?

- (a) To study the surface of Mars
- (b) To explore the rings of Saturn

- (c) To investigate the habitability of Jupiter's moon
- (d) To study the atmosphere of Venus

19. With reference to Kala-azar disease, consider the following statements:

1. It is caused by a virus which is transmitted by infected mosquitoes.
2. It is characterized by hypopigmented flat skin rash.
3. It is endemic in Bihar, Uttar Pradesh and West Bengal.
4. The WHO now aims for its elimination by 2030.

Which of the statements given above are correct?

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

20. Consider the following statements:

1. Galaxies consist of stars, planets, and vast clouds of gas and dust, all bound together by gravity.
2. Galaxies come in a variety of shapes, mostly spirals and ellipticals, as well as those with less orderly appearances, usually dubbed irregular.
3. The Milky Way galaxy is an elliptical galaxy.

Which of the statements given above are correct?

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

21. Nematine myopathy is a rare genetic disorder primarily affecting which system of the human body?

- (a) Respiratory system
- (b) Muscular system
- (c) Digestive system
- (d) Nervous system

22. Which of the following statements is not correct regarding Malaria?

- (a) Malaria is a life-threatening disease, caused by the Plasmodium parasite.
- (b) It is most prevalent in tropical and subtropical regions.
- (c) Currently, there is no vaccine available to prevent malaria.
- (d) Its symptoms include fever, headache and dark or bloody urine.

23. The U.S. Food and Drug Administration (FDA) recently approved Cobenfy, also known as KarXT, for the treatment of which of the following conditions?

- (a) Epilepsy
- (b) Schizophrenia
- (c) Parkinson disease
- (d) Alzheimer disease

24. Which of the following statements is not correct regarding Poliomyelitis (polio)?

- (a) It is a highly infectious disease caused by a virus.
- (b) The disease does not spread from person to person.
- (c) It invades the nervous system and can cause total paralysis.
- (d) Anyone of any age who is unvaccinated can contract the disease.

25. Consider the following statements:

1. Mixing chemicals such as benzene, pyridine, gasoline, etc. in ethanol by the process of denaturation produces industrial alcohol.
2. Industrial alcohol can also be used for safe human consumption.

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. Trachoma, recently seen in the news, is a disease of which of the following?

- (a) Throat (b) Eye
(c) Foot (d) Lung

27. With reference to the Flue Gas Desulfurisation (FGD), consider the following statements:

1. It is a set of technologies used to remove sulfur dioxide (SO₂).
2. The technology is used in Nuclear power plants.

Which of the statements given above is/are correct?

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

28. Consider the following statements:

1. The International Space Station (ISS) is a collaborative venture involving the United States, Canada, Russia, and Japan.
2. Bharatiya Antariksh Station is expected to take shape from 2025-2030.

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. Dyslexia, recently seen in the news, is related to which of the following?

- (a) Learning Disability (b) Lung Infection
(c) Sleep Disorder (d) Muscle Disorder

EXPLANATIONS

1. (c)

Context: In a recent study published in Nature Communications, physicists from Purdue University in the U.S. reported floating fluorescent nanodiamonds (FNDs) in a high vacuum and spinning them very fast.

- **What are FNDs?**
- They are **nanometre-sized diamonds** made of carbon nanoparticles, produced in a high temperature and high pressure process.
- FNDs are **stable under light and are not toxic** to living things, so they have many applications in high-resolution imaging, microscale temperature sensing, and correlative microscopy, among others.
- In biology, scientists use FNDs to track cells and their progeny over long periods.

2. (d)

Context: The UNAIDS director for the Asia Pacific and other regions has recently said that without India's effort, it is unlikely that the world will meet the Sustainable Development Goal of ending AIDS as a public health threat by 2030.

- **What is AIDS?**
- Acquired immunodeficiency syndrome (AIDS) is a term that applies to the **most advanced stages** of Human immunodeficiency virus (HIV) infection.

- HIV is spread from the **body fluids** of an infected person, including blood, breast milk, semen and vaginal fluids. It is **not spread** by kisses, hugs or sharing food. It can also spread from a mother to her baby.
- HIV makes it difficult for the body to fight infections and **there is no cure for AIDS** till now.
- However, **Antiretroviral therapy (ART)** which is a combination of HIV medicines is recommended for everyone suffering with HIV.
- Although ART can't cure HIV, it can help people with HIV live longer, healthier lives. Also, as more people access ART, the majority of people living with HIV will not progress to AIDS.

3. (c)

In News: The James Webb Space Telescope has detected carbon dioxide and hydrogen peroxide on Charon, Pluto's largest moon.

- **Statement 1 is correct:** Pluto was reclassified as a dwarf planet in 2006 following the discovery of other objects in the Kuiper Belt.
- **Statement 2 is correct:** Pluto and Charon engage in a distinctive orbital dance, rotating around a central point, unlike a typical planet-moon relationship.

4. (b)

Statement 1 is correct: Superbugs are bacteria that are resistant to several types of antibiotics; they can be fungi as well.

- This happens when bacteria **change over time and become resistant to drugs** that are supposed to defeat them and cure the infections they cause.
- **Statement 2 is not correct:** Antibiotics are medications that destroy or slow down the growth of bacteria. Doctors prescribe them to treat **bacterial infections**. They do this by killing bacteria and preventing them from multiplying.
- Antibiotics cannot fight **viral infections**.
- **Statement 3 is correct:** Alexander Fleming discovered **penicillin, the first natural antibiotic, in 1928**.

5. (c)

Asteroids

- Asteroids, also known as **minor planets or planetoids**, are small, rocky bodies that orbit the Sun.
- They are **remnants of the solar system's formation**, composed primarily of rock and metal.
- **Location:** The majority of asteroids are found in the **main asteroid belt**, a region between the orbits of Mars and Jupiter.
- Some asteroids go in front of and behind Jupiter, which are called **Trojans**.
- Asteroids that come close to Earth are called **Near-Earth Objects (NEOs)**.

6. (c)

- **[SOL]Context**
- Scientists have developed a new technique to detect cancers by using ultrasound.
- **What is Ultrasound?**
- **Ultrasound** is a type of sound wave with a frequency higher than the upper limit of human hearing, typically above 20,000 hertz (20 kHz).
- **Applications:** Ultrasound is commonly used to;
- Examine the development of a fetus during pregnancy.

- Diagnose conditions affecting organs like the heart, liver, kidneys, and gallbladder.
- Monitor blood flow through blood vessels (Doppler ultrasound).

7. (c)

In News : The Major Atmospheric Cherenkov Experiment (MACE) Observatory has been inaugurated at Hanle, Ladakh.

- **Statements 1, 2 and 3 are correct : MACE Observatory** is the largest imaging Cherenkov telescope in Asia.
- It is the highest Cherenkov telescope in the world, situated at an altitude of ~4,300 m.
- It is an indigenous project built by BARC with support from ECIL and other Indian industry partners.
- The telescope will advance India's role in cosmic-ray research and study high-energy gamma rays to better understand the universe's energetic events like supernovae, black holes, and gamma-ray bursts.
- It promotes scientific research while contributing to the socio-economic development of Ladakh.

8. (d)

Context: The World Health Organisation (WHO) has declared that India has eliminated Trachoma as a public health problem becoming the third country in the South-East Asia Region to achieve this milestone.

- **About: Trachoma**
- It is a disease of the **eye** caused by infection with the **bacterium Chlamydia trachomatis**.
- It is **contagious**, spreading through contact with the eyes, eyelids, nose or throat secretions of infected people, if left untreated it causes **irreversible blindness**.
- WHO has termed Trachoma as a **neglected tropical disease** and according to its estimates around 150 million people worldwide are affected by Trachoma and 6 million of them are blind or at risk of visually disabling complications.

9. (a)

Statement 1 is correct: Silicosis is a lung disease caused by inhaling fine silica dust, often found in industries such as mining, construction, and stone cutting.

- It leads to **inflammation and scarring of the lungs**, making it difficult to breathe.
- **Symptoms** can include coughing, shortness of breath, and chest pain, which may develop years after exposure.
- **Statement 2 is not correct: Silicosis isn't contagious** as it is not caused by a virus or bacteria.
- There's **no cure for silicosis** because the lung damage can't be reversed.

10. (b)

Statement 1 and 2 are correct: Proteins are large, complex molecules that play many critical roles in the body.

- They are made up of smaller units called **amino acids**, which are linked together in long chains.
- **Statement 3 is not correct:** There are **20 different types of amino acids**, and the specific sequence in which they are arranged determines the protein's structure and function.

11. (c)

In News: The rise of AI-generated synthetic medical images has been observed.

- **Statements 1 and 2 are correct: Synthetic medical images** are generated by AI or computer algorithms without being captured by traditional imaging devices such as MRI, CT scans, or X-rays.
- These images are entirely constructed using mathematical models or AI techniques like generative adversarial networks (GANs), diffusion models, and autoencoders. It allows intra- and inter-modality translation, helping generate missing scans from available data.
- **Intramodality Translation:** Generates synthetic images within the same imaging modality (e.g., reconstructing MRI scans).
- **Inter-Modality Translation:** Creates synthetic images by converting data between different modalities (e.g., generating CT scans from MRI data).

12. (d)

Both the statements are not correct: It is an infectious disease caused by the flea-borne bacteria *Rickettsia typhi*.

- The disease is also known as **endemic typhus**, flea-borne typhus or flea-borne spotted fever.
- There is **no vaccine currently available** against the disease.
- The antibiotic doxycycline is considered effective in therapy, but early diagnosis is vital for treatment.

13. (b)

Context: The Delhi High Court has issued directions aimed at improving the availability of so-called "orphan drugs", which are medications used to treat "rare diseases" — defined by the World Health Organization (WHO) as a debilitating, lifelong condition that affects 1 or fewer people in 1,000.

- **About**
- In India, rare diseases are categorised into **three groups** based on the nature and complexity of available treatment options.
- **Group 1** includes diseases that can be treated with a one-time curative procedure.
- **Group 2** diseases require long-term or lifelong treatment which are relatively less costly and have shown documented benefits, but patients need regular check-ups.
- **Group 3** diseases are those for which effective treatments are available, but they are expensive and must often continue lifelong.
- In 2021, the National Policy for Rare Diseases (NPRD) was launched, under which financial assistance up to Rs 50 lakh is provided to patients receiving treatment at an identified Centres of Excellence (CoE).

14. (b)

In News: Auroras captured at India's Highest Observatory in Hanle, Ladakh.

- **Statement 1 is correct:** Auroras occur when charged particles from solar winds interact with Earth's magnetic field.
- **Statement 2 is correct:** Auroras are primarily seen in polar regions due to the concentration of magnetic field lines near the poles.
- **Statement 3 not correct:** Auroras in the Northern Hemisphere are called "Northern Lights" (Aurora Borealis) and in the Southern Hemisphere, they are called "Southern Lights" (Aurora Australis).

15. (c)

About Europa Clipper

- **Objective:** The mission aims to determine if Europa, one of Jupiter's moons, has conditions that could support life.
- **Ocean Evidence:** Scientific evidence indicates the presence of a vast, salty ocean beneath Europa's icy surface, containing more water than Earth's oceans.
- **Significance:** Europa Clipper is the largest spacecraft NASA has ever developed for a planetary mission and marks NASA's first dedicated mission to explore an ocean world beyond Earth.
- **Timeline:** The spacecraft is set to begin orbiting Jupiter in 2030, with flybys of Europa starting in 2031.

16. (a)

Context

- The Haber-Bosch process transformed agricultural practices and played a significant role in feeding the growing global population.
- **What is the Haber-Bosch process?**
- **The Haber-Bosch process** is a crucial industrial method for **synthesizing ammonia** from nitrogen and hydrogen gases.
- **The process involves** the reaction of nitrogen (N_2) from the air with hydrogen (H_2), derived from natural gas or other fossil fuels, to produce ammonia (NH_3).
- The gases are mixed and passed over the **catalyst at high temperatures** and pressures, facilitating the formation of ammonia.
- Ammonia produced is also a **precursor for various chemicals**, including nitric acid and explosives.

17. (b)

Statement 1 is correct: It is a highly contagious, infectious disease caused by a bacterium called *Corynebacterium diphtheriae*.

- **Statement 2 and 3 are not correct:** It affects **children from newborns to 16 years** of age.
- The bacteria most commonly infects the **respiratory system**.
- It makes a toxin that kills healthy tissues in the respiratory system.
- **Treatments:** Antibiotics and an antitoxin that neutralizes the diphtheria toxin. **A vaccine is available.**
- It is covered under the Universal **Immunization Program in India**.

18. (c)

Context

- NASA has launched the Europa Clipper, to investigate Jupiter and its moon, Europa.
- **Europa Clipper**
- The Europa Clipper is the largest spacecraft Nasa has built for planetary exploration.
- It will take five- and-a-half years to reach its destination, and Clipper will approach Europa at a distance of just 25 km from its surface.

19. (b)

- **[SOL]In News:** India is nearing the potential elimination of Kala-azar as a public health problem, having maintained case numbers below one per 10,000 people for two consecutive years, in line with WHO criteria for elimination certification.

- **Statement 1 is not correct** : Visceral leishmaniasis, commonly known as kala-azar, is a slow-progressing disease caused by the protozoan parasite **Leishmania donovani** in India.
- Leishmania parasites are **transmitted by the bites of infected female phlebotomine sandflies**, which feed on blood to produce eggs.
- These parasites can be sourced from around 70 animal species, including humans.
- **Statements 2,3 and 4 are correct** : The term "kala-azar," meaning "black disease," refers to the skin discoloration associated with the infection.
- The disease's elimination target has shifted over the years, with earlier goals set for 2010, 2015, 2017, and 2020.
- The WHO now aims for elimination by 2030.
- Historically, states like Bihar, Jharkhand, West Bengal, and parts of Uttar Pradesh have reported the highest cases, particularly Bihar, which accounts for over 70%.

20. (a)

Statement 1 and 2 are correct: Galaxy: Galaxies consist of stars, planets, and vast clouds of gas and dust, all bound together by gravity.

- The largest contain trillions of stars and can be more than a million light-years across.
- The smallest can contain a few thousand stars and span just a few hundred light-years.
- Galaxies come in a **variety of shapes**, mostly spirals and ellipticals, as well as those with less orderly appearances, usually dubbed irregular.
- **Statement 3 is not correct**: Earth is a part of the Milky way Galaxy.
- It's a **spiral galaxy** with a disk of stars spanning more than 100,000 light-years.
- Solar system takes about 240 million years to orbit the Milky Way just once.

21. (b)

Context: Chief Justice of India DY Chandrachud recently spoke about his foster daughters' genetic condition, nemaline myopathy.

- **What is Nemaline myopathy?**
- Nemaline myopathy, or rod myopathy, is a **rare** congenital disease affecting **skeletal muscles**, causing muscle weakness.
- The condition is **hereditary** and caused by genetic mutations affecting muscle proteins.
- It affects around 1 in 50,000 births, leading to various symptoms like facial, neck, and trunk muscle weakness, feeding and breathing difficulties, and other deformities.

22. (c)

Context: The World Health Organization (WHO) has certified Egypt as malaria-free.

- **About: Malaria**
- Malaria is a life-threatening disease, caused by the **Plasmodium parasite** and transmitted through bites from infected **female Anopheles mosquitoes**.
- It is most prevalent in **tropical and subtropical regions**, including sub-Saharan Africa, Southeast Asia, and South America.
- The most deadly species is **Plasmodium falciparum**, but **Plasmodium vivax** is the most widespread.
- After entering the human body, the parasite **multiplies in the liver and then infects red blood cells**

- **Symptoms:** Fever, headache, chills, Fatigue, confusion, seizures, difficulty breathing, jaundice, and dark or bloody urine.
- **Prevention Strategies :**
- **Vector Control:** Key strategies include insecticide-treated nets (ITNs) and indoor residual spraying (IRS), though resistance to insecticides is emerging.
- **R21/Matrix-M Vaccine:** Recommended in October 2023, further enhancing prevention efforts.
- **Chloroquine:** Effective for *P. vivax* in sensitive regions, often supplemented with Primaquine to prevent relapses.

23. (b)

Context: The U.S. Food and Drug Administration (FDA) approved a drug called Cobenfy, also known as KarXT, to treat schizophrenia.

- **About: Schizophrenia**
- Schizophrenia is one of the most serious of all psychiatric disorders. It has life-changing consequences, including social isolation, stigma, and diminished prospects of finding a partner.
- Persons with schizophrenia have a life expectancy lower by 13–15 years, with contributions from weight gain, poor dietary habits, smoking, and comorbid substance use.
- Five percent of people with schizophrenia die by suicide. It typically develops during late adolescence and early adulthood.

24. (b)

Context: Every year on 24 October, World Polio Day is observed.

- **Poliomyelitis (polio)**
- Polio is a highly infectious disease caused by a **virus**. It invades the **nervous system** and can cause total paralysis in a matter of hours.
- The virus is **transmitted by person-to-person** spread mainly through the faecal-oral route or, less frequently, by a common vehicle (e.g. contaminated water or food) and multiplies in the intestine, from where it can invade the nervous system and cause paralysis.
- Polio mainly affects children under 5 years of age. However, **anyone of any age** who is unvaccinated can contract the disease.
- There is no cure for polio, it can only be prevented.

25. (a)

Statement 1 is correct: Industrial alcohol is impure alcohol that is used as an industrial solvent.

- **Mixing chemicals** such as benzene, pyridine, gasoline, etc. in ethanol, which is produced by fermenting grains, fruit, molasses, etc., — a process that is called '**denaturation**' — turns it into industrial alcohol.
- **Statement 2 is not correct:** This makes the alcohol **unfit for human consumption**, and significantly lowers its price.
- It is used to manufacture a **range of products** including pharmaceuticals, perfumes, cosmetics, and cleaning liquids.
- It is sometimes **used to make illicit liquor, cheap and dangerous intoxicants** whose consumption poses severe risks, including blindness and death.

26. (b)

Context: India successfully eliminated trachoma as a public health problem, marking a significant victory despite the achievement receiving less visibility.

- **About**
- Trachoma previously accounted for 4% of **blindness cases** in India; this figure has now decreased to 0.7%.
- Trachoma, caused by **Chlamydia trachomatis**, primarily affects vulnerable populations, particularly young children and women in areas with poor sanitation.
- The disease spreads through contact with **infected eye secretions** and is exacerbated by overcrowding and poor hygiene.
- The WHO defines elimination as a health problem when prevalence rates drop below specific thresholds, but this does not mean total eradication.
- India has implemented the **WHO's SAFE strategy** (Surgery, Antibiotics, Facial cleanliness, Environmental improvements) to combat trachoma.

27. (a)

Statement 1 is correct: Flue Gas Desulphurisation is a set of technologies used to remove sulfur dioxide (SO₂) from exhaust flue gases of fossil-fuel power plants and other industrial processes. Hence, Statement 2 is not correct.

- This is crucial for **reducing air pollution** and meeting environmental regulations.
- The FGD systems — to control sulfur dioxide (SO₂) emissions — was mandated by the Ministry of environment, forest and climate change (MoEF&CC) across India in 2015.

28. (a)

Statement 1 is correct: The International Space Station (ISS), which is a collaborative venture involving the United States, Canada, Russia, Japan, and the participating countries of the European Space Agency has been operational, in its complete form, since 1998.

- But with changing geo-politics and costs, the ISS is expected to be **decommissioned by 2030**.
- Some countries are moving to build their own space stations.

China launched the base module of its station, Tiangong, in 2021.

- **Statement 2 is not correct: Bharatiya Antariksh Station** is expected to take shape from **2028-2035**.
- Before the BAS, the major mission on ISRO's plate is the Gaganyaan mission, which will be India's first crewed mission to space that is expected to launch in 2025-2026.

29. (a)

Context: In a step towards spreading awareness about Dyslexia, the Rashtrapati Bhawan, Parliament, India Gate and other government offices have been lit red recently.

- **What is Dyslexia?**
- Dyslexia, previously known as word blindness, is a **learning disability** that affects either reading or writing.
- Problems may include difficulties in spelling words, reading quickly, writing words, pronouncing words when reading aloud and understanding what one reads.



ENVIRONMENT & ECOLOGY

1. With reference to Permafrost, consider the following statements:
1. Permafrost is any ground that remains completely frozen—32°F (0°C) or colder—for at least ten years straight.
 2. It is made of a combination of soil, rocks and sand that are held together by ice.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
2. Consider the following statements:
1. There are three species of elephant and all three are listed as Endangered on the IUCN Red List of Threatened Species.
 2. African elephants have two 'fingers' at the tip of their trunks, whereas Asian elephants have one.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
3. Consider the following statements with reference to the Black Carbon:
1. It is formed by the incomplete combustion of fossil fuels, biofuels, and biomass.
 2. It has an atmospheric lifetime of more than 100 years.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
4. Consider the following statements with reference to the Indian Wild Ass.
1. It inhabits open dry deciduous forests.
 2. It is included under Schedule I of the Wildlife Protection Act of 1972 .
 3. It is listed as Critically Endangered on the IUCN's Red List of Threatened Species.
- How many of the above statements are correct?
- (a) Only one (b) Only two
(c) All three (d) None
5. Consider the following statements:
1. The Halari Donkey is indigenous to the Halar region of Gujarat.
 2. Halari donkey milk is known for its sweetness, and its milk powder is highly valued in the international market.
- 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 Plankton Bloom, consider the following statements:
1. It refers to a sudden increase in the population of phytoplanktons only.
 2. It can occur only on a small scale in aquatic ecosystems.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
7. With reference to the red panda, consider the following statements:
1. It is the state animal of Arunachal Pradesh.
 2. It is listed as endangered 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
8. Kaimur Wildlife Sanctuary, recently seen in the news, is located in which of the following States?
- (a) Manipur (b) Tripura
(c) Gujarat (d) Bihar
9. With reference to the Horseshoe Crab, consider the following statements:
1. They are fresh water arthropods.
 2. Maximum density of Horseshoe crabs is found along the Odisha coast.
 3. Their blood contains a special clotting agent limulus amebocyte lysate (LAL) which detects a contaminant called endotoxin.
- How many of the statements given above are correct?
- (a) Only one (b) Only two
(c) All three (d) None
10. Which of the following best describes "greenwashing"?
- (a) A genuine effort by companies to adopt environmentally friendly practices.
(b) The process of improving public understanding on environmental issues.
(c) A marketing strategy where companies falsely promote their products as environmentally friendly.
(d) The governmental regulation of industries to reduce carbon emissions.
11. With reference to the India's Renewable Energy Targets, consider the following statements:
1. India has a vision to achieve Net Zero Emissions by 2070.
 2. Increasing renewables capacity to 500 GW by 2035.
 3. Reducing emissions intensity of India's gross domestic product (GDP) by 30% by 2030 from 2005 levels.
- How many of the statements given above are correct?
- (a) Only one (b) Only two
(c) All three (d) None
12. With reference to Ganges River Dolphin, which of the following statements is/are correct?
1. The Dolphin is essentially blind and hunts by emitting ultrasonic sounds (echolocation) waves.
 2. It was designated as a national aquatic species of India in 2009.

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 Blackbuck (*Antelope cervicapra*), consider the following statements:

1. They are typically found in grasslands, savannas, and open forests.
2. They are listed as threatened under the IUCN Red list of threatened species.
3. It is the state animal of Rajasthan.

How many of the statements given above are correct?

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

14. With reference to Indus River Dolphin, which of the following statements is/are correct?

1. A small population of the species is present in the Beas River in India.
2. The species is protected under Schedule I of the Indian Wildlife (Protection) Act 1972 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

15. Consider the following statements regarding hoolock gibbons found in India:

1. The Western hoolock gibbon is found in all states of north-east India.
2. The Eastern hoolock gibbon is listed as Critically Endangered in 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

16. Consider the following statements:

1. Plankton are tiny organisms that drift in water and are limited to oceans only.
2. Jellyfish is categorised as one of the phytoplankton.

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. Which of the following pollutants are typically released during wildfires?

1. Carbon dioxide (CO_2)
2. Methane (CH_4)
3. Nitrogen oxides (NO_x)
4. Particulate Matter ($\text{PM}_{2.5}$)

Select the correct answer using the code given below:

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

18. With reference to the red panda, consider the following statements:

1. It is the state animal of Sikkim.
2. It is 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

19. With reference to *Caenorhabditis elegans*, consider the following statements:

1. It is a parasitic organism belonging to the phylum Nematoda.
2. It plays a role in soil ecosystems, feeding on bacteria and contributing to nutrient cycling.

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

1. They are invertebrates that belong to a large group of animals called Cnidaria.
2. They are formed by multiple small, soft organisms known as polyps.
3. Coral bleaching occurs when corals expel the colourful algae living in their tissues.

Which of the statements given above are correct?

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

21. Carbon dioxide is not the output of the production process of which of the following types of hydrogen?

1. Blue Hydrogen
2. Grey Hydrogen
3. Green Hydrogen
4. Brown Hydrogen

Select the correct answer from the codes given below:

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

22. *Escherichia coli* (*E. coli*), recently seen in the news, comes under which of the following categories of microorganisms?

- (a) Bacteria (b) Algae
(c) Fungi (d) Protozoa

23. The Great Indian Bustard is primarily found in which of the following regions?

- (a) Eastern Himalayan foothills
- (b) Arid grasslands of Rajasthan and Gujarat
- (c) Coastal mangroves of Andhra Pradesh
- (d) Tropical rainforests of the Western Ghats

24. With reference to India's Nationally Determined Contribution (NDCs) Goals, consider the following statements:

1. India aims to reduce the emissions intensity of its GDP by 45% by 2030, compared to 2005 levels.
2. The country seeks to achieve 40% of its energy needs from non-fossil fuel sources by 2030.

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 Snow Leopard (*Panthera Uncia*), consider the following statements:
1. It is often termed as Ghost of Mountain.
 2. It is listed as endangered on the IUCN Red List of Threatened Species.
 3. It is the state animal of Himachal Pradesh and Ladakh.
- How many of the above statements are correct?
- (a) Only one (b) Only two
(c) All three (d) None
26. With reference to the Water Hyacinth, consider the following statements:
1. It is a non-native aquatic invasive plant.
 2. It has fibrous stem and is used in making various handicraft items.
 3. It can block sunlight and deplete oxygen in water bodies, harming fish and other aquatic life.
- Which of the statements given above are correct?
- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3
27. Which of the following are characteristics of Mangroves?
1. They are found in low lying areas of tropical and subtropical regions.
 2. They represent the littoral forest ecosystem.
 3. They have specialized roots called pneumatophores that assist in respiration in anaerobic soils.
 4. They exhibit the Viviparity mode of reproduction.
- How many of the above statements are correct?
- (a) Only one (b) Only two
(c) Only three (d) All four
28. Which of the following statements is not correct regarding Miyawaki forest?
- (a) It involves creating dense urban forests in a small area.
(b) The plants used are mostly self-sustaining and do not require regular maintenance.
(c) It involves planting two to four different types of invasive trees within every square metre.
(d) It is named after Japanese botanist Akira Miyawaki, who developed this methodology in the 1970s.
29. Which of the following accurately describes the physiological ability of tardigrades to survive extreme environmental conditions?
- (a) They have a unique respiratory system that allows them to generate oxygen internally.
(b) They can enter a dried, lifeless state and revive after years without sustenance.
(c) They rely on photosynthesis to survive in nutrient-deficient environments.
(d) They use anaerobic respiration exclusively to sustain themselves.
30. With reference to the Tiger Reserve in India, Consider the following pairs :
- Tiger Reserve Region**
1. Amrabad Tiger Reserve : Andhra Pradesh
 2. Tadoba-Andhari Tiger Reserve : Maharashtra
 3. Simlipal Tiger Reserve : West Bengal

How many of the above pairs are correctly matched?

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

EXPLANATIONS

1. (b)

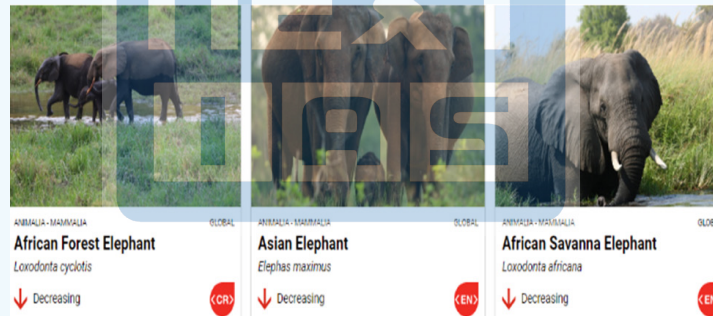
Statement 1 is not correct: Permafrost is any ground that remains completely frozen—32°F (0°C) or colder—for at least two years straight.

- These permanently frozen grounds are **most common in regions** with high mountains and in Earth's higher latitudes—near the North and South Poles.
- **Statement 2 is correct:** Permafrost is made of a **combination of soil, rocks and sand that are held together by ice.**
- The soil and ice in permafrost stay frozen all year long.

2. (b)

Context: A team of researchers from the Bengaluru-based National Centre for Biological Sciences (NCBS) and the Indian Institute of Science (IISc) has found that the Indian elephant migrated from the north to the south over many millennia and lost their genetic diversity progressively with each southward migration.

- **Do you know?**
- There are three species of elephant: African Savanna (Bush), African Forest and Asian.
- African Savanna and Asian are **Endangered.**
- African Forest is **Critically Endangered.**



- African elephants have **two 'fingers'** at the tip of their trunks, whereas Asian elephants have one.
- According to the last national census conducted in 2017, India is home to more than 29,000 elephants.

4. (a)

Context: A recent study, published in the journal Atmospheric Pollution Research, found that eastern India contributed 7.5 Gg or 60 per cent of India's black carbon emissions from secondary light sources.

- **About Black Carbon**
- Black Carbon (BC) is a short-lived pollutant formed through incomplete combustion of fossil fuels, biofuels, and biomass.
- Unlike CO₂, it has a short atmospheric lifetime (days to weeks), but its warming potential is much higher.
- It causes respiratory and cardiovascular diseases.

5. (b)

In News : The Indian Wild Ass population in Gujarat has increased by 26% over the last five years, reaching a total of 7,672.

- **Statements 1 and 2 are correct :** Indian Wild Asses is a subspecies of the Asian Wild Ass (*Equus hemionus*).
- It inhabits open dry deciduous forests.
- It is solitary and shy animal, present in low densities across its distribution range.
- Historically, the species ranged from Southern India to southern Pakistan, Afghanistan, and southeastern Iran.
- Currently, the population is found in the Rann of Kachchh in Gujarat.
- Wild asses, protected under **Schedule I of the Wildlife Protection Act**
- **Statement 3 is not correct :** Indian Wild Asses listed as "Near Threatened" by the International Union for Conservation of Nature. The species is identified by the presence of four horns present only in adult males. They are primarily browsers preferring nutrient rich forage.

6. (c)

In News: The Halari Donkey, native to the Halar region of Gujarat, is a rare and endangered breed with fewer than 500 individuals remaining.

- **About Halari Donkeys**
- **Region:** Found mainly in Jamnagar and Dwarka districts of Gujarat's Saurashtra region.
- **Appearance:** The Halari donkey is white in color, larger, and more resilient than other donkey breeds, making it well-suited to the semi-arid landscape.
- **Uses:** Traditionally used in building dams, forts, and temples, the donkeys are known for their impressive ability to carry heavy loads of stone and sand.
- **Economic Value:** Their milk, known for its sweetness, is in high demand, with milk powder fetching upwards of ₹7,000 per kg in the international market, especially for cosmetic uses.

7. (d)

Both the statements are not correct: A plankton bloom refers to a sudden increase in the population of plankton—both phytoplankton (microscopic plants) and zooplankton (microscopic animals)—in aquatic ecosystems.

- **Physical conditions and nutrient levels** can lead to high abundances of particular plankton types.
- These plankton "blooms" are **common throughout the world's oceans**.
- Blooms can be quick events that begin and end within a few days or they **may last several weeks**.
- They can occur on a relatively small scale **or cover hundreds of square kilometers of the ocean's surface. Hence, Statement 2 is not correct.**

8. (b)

Context: The Red Panda Program of Darjeeling's Padmaja Naidu Himalayan Zoological Park has been selected as a finalist for the World Association of Zoos and Aquariums (WAZA) Conservation Award 2024.

- **About: Red Panda**
- The red panda is a small arboreal mammal found in the forests of India, Nepal, Bhutan, and the northern mountains of Myanmar and southern China.

- It thrives best at 2,200-4,800m in mixed deciduous and conifer forests with dense understories of bamboo, though red panda evidences have also been found at 1800m.
- In India, this elusive species is found in Sikkim, Arunachal Pradesh, Darjeeling and Kalimpong districts of West Bengal. It is the **state animal of Sikkim**.
- Listed as **endangered** in the IUCN red list of Threatened Species and under Schedule I of the Indian Wildlife (Protection) Act, 1972, the red panda has the highest legal protection.

9. (d)

Context: Bihar will develop Kaimur Wildlife Sanctuary (KWLS) as its second tiger reserve due to Valmiki Tiger Reserve reaching capacity.

- **About**
- The National Tiger Conservation Authority has given the approval.
- The KWLS will provide a new habitat for the tiger population, which has grown significantly in the state.
- Other wildlife in the sanctuary includes leopard, sloth bear, and several bird species.

10. (b)

Statement 1 is not correct: Horseshoe crabs are marine and brackish water arthropods of the family Limulidae and the only living members of the order Xiphosura.

- They have been around for **more than 300 million years**, making them even older than dinosaurs.
- **Statements 2 and 3 are correct:** Maximum density of Horseshoe crabs is found along the Odisha coast and Balasore used to be the largest spawning ground.
- A horseshoe crab's **bright blue blood** is used to **test vaccines**, drugs and medical devices to ensure that they aren't contaminated with dangerous bacterial toxins.
- Their blood contains a **special clotting agent limulus ameobocyte lysate (LAL)** which detects a contaminant called **endotoxin**.

11. (c)

Context: The government unveiled comprehensive guidelines to regulate greenwashing and misleading environmental claims by companies, aiming to protect consumers and promote transparency in eco-friendly marketing.

- **What is greenwashing?**
- Greenwashing refers to **misleading** the general public into believing that **companies**, sovereigns or civic administrators are doing more for the environment than they actually are.
- This may involve making a product or policy seem more environmentally friendly or less damaging than it is in reality.
- The term was coined by environmentalist **Jay Westerveld** in 1986.

12. (a)

Statement 1 is 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**, Hence, **Statement 2 is not correct**.
- Meeting **50% of energy requirements** from renewables,
- Reducing cumulative emissions by **one billion tonnes by 2030**, and
- Reducing emissions intensity of India's gross domestic product (GDP) by **45% by 2030 from 2005 levels**. Hence, **Statement 3 is not correct**.

13. (c)

Ganges River Dolphin (*Platanista Gangetica*)

- **Characteristics:** Ganges River Dolphin is essentially **blind and hunts by emitting ultrasonic sounds (echolocation)** waves that bounce off of fish and other prey.
- Because of the sound it produces when breathing, the animal is popularly referred to as **Susu**.
- **Distribution:** It is distributed in Ganges and Brahmaputra river basins of India, Nepal and Bangladesh. It can only live in freshwater.
- **Threat:** Ganges river dolphin is facing severe threats from water development projects, pollution, hunting and death due to accidental catches in fishing gear.
- **Conservation status:** The Ganges river dolphin is protected under
- **Schedule 1** of the **Indian Wildlife (Protection) Act 1972**,
- **Appendix 1** of the Convention on International Trade in Endangered Species (CITES) and
- **Appendix 1** of the Convention on Migratory Species (CMS).
- **IUCN status:** Endangered
- **National and State Symbol:** The Ganges river dolphin was designated as a **national aquatic species in 2009** and as the **state aquatic animal of Assam**.

14. (a)

Statement 1 is correct: Blackbuck (*Antelope cervicapra*) is an antelope native to India, which were once abundant in many parts of undivided India.

- **Habitat:** They are typically found in grasslands, savannas, and open forests. They prefer areas with short grass for grazing.
- **Statement 2 and 3 are not correct: Conservation Status:** The IUCN List has declared the species as **Least Concerned**.
- Hunting of blackbuck is prohibited under **Schedule I** of the Wildlife Protection Act of 1972.
- The blackbuck is the state animal of **Punjab, Haryana, and Andhra Pradesh**.

15. (c)

Indus River Dolphin (*Platanista minor*)

- **Characteristics:** The Indus River Dolphin is also functionally blind and relies on echolocation to navigate and find prey.
- It is commonly referred to as **Bhulan** in local languages.
- **Distribution:** The Indus River Dolphin is found in the Indus River system in Pakistan and a small population is present in the **Beas River** in India.
- **Threat:** Water diversion projects have significantly reduced its habitat range, confining populations to isolated sections of the river.
- **Conservation Status:** Protected under Schedule I of the Indian Wildlife (Protection) Act 1972 in India.
- **Appendix I** of the Convention on International Trade in Endangered Species (CITES).
- **Appendix I** of the Convention on Migratory Species (CMS).
- **IUCN status:** Endangered
- **State Symbol:** The Indus river dolphin is the state aquatic animal of **Punjab**.

16. (a)

- Statement 1 is correct: The Western hoolock gibbon is indeed found in all states of north-east India, with its habitat restricted between the south of the Brahmaputra river and east of the Dibang river.

- Statement 2 is not correct: While the Eastern hoolock gibbon is found in specific pockets of Arunachal Pradesh and Assam in India, as well as in southern China and north-east Myanmar, it is listed as Vulnerable by the IUCN, not Critically Endangered.

17. (d)

Both the statements are not correct: Plankton are tiny organisms that drift in oceans, seas, and freshwater bodies. They are categorized into two main types:

- **Phytoplankton:** These are **microscopic plants, primarily algae**, that perform photosynthesis and are crucial for producing oxygen and serving as the base of aquatic food webs.
- **Zooplankton:** These are small animals or the larval stages of larger animals. They feed on phytoplankton and other zooplankton.
- They can vary in size from tiny **bacteria to larger organisms like jellyfish**.

18. (a)

Context

- A study revealed that the Carbon dioxide (CO₂) emitted from forest fires grew by 60 per cent across all forests globally since 2001.
- **About**
- **Wildfires release a variety of pollutants including:**
- **CO₂ (carbon dioxide)** which contributes to global warming,
- **CH₄ (methane)**, a potent greenhouse gas,
- **NO_x (nitrogen oxides)**, which contribute to ozone formation and air pollution, and
- **Particulate Matter (PM2.5)**, which can cause respiratory issues and reduce air quality.

19. (a)

Red Panda

- The red panda is a small arboreal mammal inhabiting forests in India, Nepal, Bhutan, northern Myanmar, and southern China.
- In India, they are primarily located in Sikkim, Arunachal Pradesh, and the Darjeeling and Kalimpong districts of West Bengal. It is the **state animal of Sikkim**.
- Classified as **Endangered** on the IUCN Red List and protected under **Schedule I** of the Indian Wildlife (Protection) Act of 1972, the red panda enjoys the highest level of legal protection.

20. (b)

Statement 1 is not correct: *C. elegans* is a nematode (roundworm)—a member of the phylum Nematoda.

- It is a non-hazardous, non-infectious, non-pathogenic, **non-parasitic organism**.
- **Statement 2 is correct:** It plays a role in **soil ecosystems**, feeding on bacteria and contributing to **nutrient cycling**.
- It is widely **used in studies** of aging, neurodegenerative diseases, and the effects of various genetic mutations.

21. (d)

All three statements are correct: 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 colour from **red to purple and even blue**, but are most commonly shades of **brown and green**.
- Coral are bright and colorful because of microscopic algae called **zooxanthellae**.
- Coral bleaching occurs when **corals expel the colourful algae** living in their tissues.

22. (c)

About:

Hydrogen is the chemical element with the symbol H and atomic number 1.

- Hydrogen is the **lightest element** and the most abundant chemical substance in the universe, constituting **roughly 75% of all normal matter**.
- **It is colourless, odourless, tasteless, non-toxic, and highly combustible**.
- Hydrogen fuel is a **zero-emission fuel burned with oxygen**. It can be used in fuel cells or internal combustion engines and as a fuel for spacecraft propulsion.
- **Extraction of Hydrogen:**
- Hydrogen exists in combination with other elements.
- Hence, for using it as a source of energy, it has to be extracted from naturally occurring compounds like water (which is a combination of two hydrogen atoms and one oxygen atom).
- The sources and processes by which hydrogen is derived are **categorised by different colours**.

Brown Hydrogen	Grey Hydrogen	Blue Hydrogen	Green Hydrogen
Hydrogen produced when coal is transformed under high pressure conditions, and the resulting carbon dioxide is released back into the air.	Hydrogen produced when natural gas is transformed by burning methane and the resulting carbon dioxide is released back into the air.	Hydrogen produced from natural gas , but the output carbon dioxide is captured and stored thereby avoiding carbon emissions.	Hydrogen extracted from water using a method called electrolysis that is powered by renewable energy such as wind/solar

23. (a)

Context: One person has died and 10 have been hospitalised in the United States due to an E.coli infection after eating McDonald's burgers.

- **About**
- Escherichia coli (E. coli) is a **bacteria** that is commonly found in the gut of humans and warm-blooded animals.
- Most strains of E. coli are harmless. Some strains however, such as Shiga toxin-producing E. coli (STEC), can cause severe foodborne disease.
- It is transmitted to humans primarily through consumption of contaminated foods, such as raw or undercooked ground meat products, raw milk, and contaminated raw vegetables and sprouts.

24. (b)

In News: The Sudasari Great Indian Bustard Breeding Centre in Jaisalmer, Rajasthan, successfully bred a great Indian bustard (GIB) using artificial insemination (AI).

- **Great Indian Bustard**

- **About:**
- **One of the heaviest flying birds endemic to the Indian subcontinent.**
- omnivorous
- **State Bird of Rajasthan**
- **Habitat:**
- Untamed, Arid grasslands.
- A Maximum number of GIBs were found in Jaisalmer and the Indian Army-controlled field firing range near Pokhran, Rajasthan.
- **Other areas:** Gujarat, Maharashtra, Karnataka and Andhra Pradesh.
- **Protection Status:**
- **IUCN Status:** Critically Endangered.
- Listed in **Wildlife Protection Act's Schedule 1.**
- **Threats to the Bird:**
- Hunting, Intensification of agriculture, Power lines.

25. (a)

Statement 1 is correct: India seeks to achieve following targets by 2030:

- **Emission Reduction:** India aims to reduce the emissions intensity of its GDP by **45% by 2030**, compared to 2005 levels.
- **Renewable Energy:** The country seeks to achieve **50%** of its energy needs from non-fossil fuel sources by 2030, with a target of installing 500 GW of renewable energy capacity. **Hence, Statement 2 is not correct.**
- **Carbon Sink:** India plans to create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through afforestation and reforestation efforts.

26. (b)

Context: International Snow Leopard Day was observed on October 23.

- **About Snow Leopard (*Panthera Uncia*)**
- The snow leopard has a beautiful, spotted coat, thick enough to insulate them from the cold. It is often termed as **Ghost of Mountain.**
- **Distribution:** They are sparsely distributed across 12 countries in central Asia, from southern Russia down to the Tibetan plateau, including Mongolia, China, Afghanistan, Pakistan, India and Nepal.
- **Threats:** Loss of natural prey species, retaliatory killing due to conflict with humans and illegal trade of its fur and bones.
- **Conservation:** Classified as '**Vulnerable**' by the International Union for Conservation of Nature (IUCN) Red list and listed in **Schedule-I species of the Indian Wildlife (Protection) Act, 1972.**
- It is the state animal of **Himachal Pradesh and Ladakh.**

27. (d)

Context: The Andhra Pradesh Handicrafts Development Corporation is planning to impart training to artisans in manufacturing eco-friendly products and decorative material with water hyacinth.

- **About Water Hyacinth**
- Water Hyacinth is called Gurrupudekka in Telugu, it is a **non-native aquatic invasive plant.**
- It has fibrous stem and is used in **making various handicraft items**, including handbags, table mats, baskets, and decorative pieces.

- It **absorbs heavy metals and pollutants**, making it useful in wastewater treatment, though its disposal after use requires careful management.
- Water hyacinth can **block sunlight and deplete oxygen in water bodies**, harming fish and other aquatic life.

28. (d)

In News :Significant damage of Cyclone Dana was averted largely due to effective evacuation efforts by state authorities and the protective role of the region's mangrove forests.

- **All the above statements are correct**
- Mangroves are salt-tolerant trees that thrive in estuarine and intertidal areas, characterized by their aerial roots and waxy leaves.
- **Characteristics:** Represent the **littoral forest ecosystem**.
- Found in **low-lying tropical and subtropical regions** (between 24°N and 38°S).
- Known as halophytes due to their salt tolerance.
- Trees typically range from 8 to 20 meters in height with thick leaves.
- Have specialized roots **called pneumatophores** that assist in respiration in anaerobic soils.
- Reproduce via **viviparity**, where seeds germinate on the parent tree before falling.
- The Sundarbans, spanning India and Bangladesh, is the world's largest contiguous mangrove forest.
- In India, notable mangrove areas include Odisha's Bhitarkanika, Andhra Pradesh's Godavari-Krishna delta, and regions in the Andaman Islands and Kerala.

29. (c)

Context: Uttarakhand's forest department has created the world's highest-altitude Miyawaki forest at 8,000 ft in Pithoragarh, beating extreme conditions like sub-zero temperatures and wildlife threats.

- **What is Miyawaki forest?**
- Named after Japanese botanist **Akira Miyawaki**, who developed this methodology in the **1970s**, it involves creating dense urban forests in a small area.
- It involves planting two to four different types of **indigenous trees** within every square metre. The trees grow to their full length within **three years**.
- The dense green cover of indigenous trees plays a key role in **absorbing the dust particles** and regulating surface temperature.
- The plants used are mostly **self-sustaining** and do not require regular maintenance like manuring and watering. Some of the common plants used include Anjan, Amala, Bel, Arjun and Gunj.

30. (b)

Tardigrades, also known as "water bears," are renowned for their extreme survival abilities. Their resilience comes from a unique physiological process called cryptobiosis. In this state, tardigrades can lose almost all body water, becoming dry and lifeless. During cryptobiosis, they reduce their metabolism to nearly zero, effectively halting biological functions to survive harsh conditions such as extreme radiation, freezing, boiling temperatures, and even the vacuum of space.

31. (a)

Context: The Odisha government has translocated a female tiger from Maharashtra's Tadoba-Andhari Tiger Reserve to Similipal Tiger Reserve, the State's largest, to enhance the genetic diversity of its tiger population.

- **Tadoba-Andhari Tiger Reserve**
- Located in the Chandrapur district of **Maharashtra**, the Tadoba-Andhari Tiger Reserve is known to be the fastest-growing tiger population in the country.
- Tadoba also supports several other carnivore species, including the leopard and dhole, with the sambar, chital, wild pig and gaur being the most common prey species.
- **Simlipal Tiger Reserve**
- It derives its name from 'Simul' (Silk Cotton) tree and is located in the northern part of **Odisha's** Mayurbhanj district.
- Simlipal is the only home for the unique melanistic tiger in the world.
- **Amrabad Tiger Reserve**
- It is one of the largest tiger reserves in India that extends about 2611.4 Sq Km over Nagarkurnool and Nalgonda districts of **Telangana**.
- The hilly terrain of this Tiger Reserve with deep valleys and gorges forms the catchment of the **Krishna River**.



MISCELLANEOUS

1. Which of the following nations launched the Musaned Platform to ensure wage protection and human rights for expatriate workers?
 - (a) Qatar
 - (b) United Arab Emirates
 - (c) Saudi Arabia
 - (d) Kuwait
2. Which of the following statements is correct regarding the Pandemic Fund Project?
 - (a) It is a \$50 million initiative funded by the World Health Organization.
 - (b) It was established under India's G20 Presidency in 2023.
 - (c) It aims to enhance the capacity of low- and middle-income countries to respond to animal health threats and pandemics.
 - (d) It is implemented solely by the World Bank.
3. The term "BRIC" was coined by which of the following economists in 2001 to represent emerging economies?
 - (a) Paul Krugman
 - (b) Joseph Stiglitz
 - (c) Amartya Sen
 - (d) Jim O'Neill
4. Emissions Gap Report is released by which of the following organizations?
 - (a) Intergovernmental Panel on Climate Change
 - (b) International Union for Conservation of Nature
 - (c) World Bank
 - (d) United Nations Environment Programme
5. The term "riba," recently seen in the news, refers to?
 - (a) Loan that draws interest
 - (b) Cryptocurrency trading
 - (c) Carbon emissions tax
 - (d) A new AI chatbot
6. Which among the following has become the first G7 country to end coal-fired power production?
 - (a) The United Kingdom
 - (b) France
 - (c) Germany
 - (d) The United States
7. With reference to the Shiromani Gurdwara Parbandhak Committee (SGPC), which of the following statements is/are correct?
 1. It manages the affairs of Sikh gurdwaras in India and abroad.
 2. The SGPC operates under the Gurdwara Act of 1925.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. The Rome Declaration on Water Scarcity in Agriculture was adopted under the leadership of which of the following organizations?
- United Nations Environment Programme (UNEP)
 - World Health Organization (WHO)
 - Food and Agriculture Organization (FAO)
 - International Fund for Agricultural Development (IFAD)
9. With reference to the Global Multidimensional Poverty Index, which of the following statements is/are correct?
- It is an annual report published since 2010 by the World Bank.
 - The index compares more than 100 countries by using three dimensions under ten indicators.
- Select the correct answer using the code given below:
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
10. Which of the following statements is true about the FAO's Hand-in-Hand (HIH) Initiative?
- It was launched in 2021 to support the development of agrifood systems globally.
 - The initiative focuses on eradicating poverty, ending hunger, and reducing inequalities using advanced geospatial modeling and partnerships.
 - India is a key member of the initiative, which includes 72 countries.
 - None of the above.
11. With reference to the Global Hunger Index (GHI), which of the following statements is/are correct?
- It is an annual report, published by the World Food Programme.
 - The Index is based on a score ranging from 0 to 100, where 100 is the best possible score and 0 is the worst.
- Select the correct answer using the code given below:
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
12. The FAO accords the status of 'Globally Important Agricultural Heritage System (GIAHS)' to traditional agricultural systems. What is the overall goal of this initiative?
- To provide modern technology, training in modern farming methods, and financial support to local communities of identified GIAHS so as to greatly enhance their agricultural productivity.
 - To identify and safeguard eco-friendly traditional farm practices and their associated landscapes, agricultural biodiversity, and knowledge systems of the local communities.
 - To provide Geographical Indication status to all the varieties of agricultural produce in such identified GIAHS.
- Select the correct answer using the code given below:
- 1 and 3 only
 - 2 only
 - 2 and 3 only
 - 1, 2 and 3
13. The Nobel Prize in Literature 2024 was awarded to which among the following personalities?
- Jon Fosse
 - Kazuo Ishiguro
 - Han Kang
 - Annie Ernaux

14. Anaconda Strategy, recently seen in the news, is related to which of the following?
- (a) A military strategy involving surrounding an opponent with gradual pressure
 - (b) A diplomatic strategy focused on forming global alliances
 - (c) A trade strategy aimed at reducing economic dependency
 - (d) A cyber strategy targeting critical infrastructure systems
15. Which among the following was awarded the Nobel Peace Prize 2024, and for what contribution?
- (a) The United Nations, for global peacekeeping efforts.
 - (b) Nihon Hidankyo, for its activism against nuclear weapons and support of atomic bomb survivors.
 - (c) The World Health Organization, for efforts to combat pandemics.
 - (d) Amnesty International, for defending human rights globally.
16. The 2024 Economics Nobel Prize was awarded to Daron Acemoglu, Simon Johnson and James A Robinson for
- (a) Studies of how institutions are formed and affect prosperity.
 - (b) Experimental approaches to alleviating global poverty.
 - (c) Research on women's contribution to the labor market.
 - (d) Work on international trade theory and economic geography.
17. Beijing Declaration, recently seen in the news, is related to which of the following?
- (a) Rights of Senior Citizens
 - (b) Girls' Rights and Needs
 - (c) Road Safety
 - (d) Genetics and Genome Research
18. Consider the following statements with reference to Living Planet Report
1. It is published annually by the International Union for Conservation of Nature.
 2. According to a 2024 report, there has been a 73% decline in the average size of monitored wildlife populations from 1970-2020.
- Which of the statements given above is/are correct?
- (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
19. With reference to the World Mental Health Day, which of the following statements is/are correct?
1. It was first initiated in 1992 by the World Health Organization.
 2. The theme for World Mental Health Day 2024 is 'Mental Health at Work'.
- 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
20. The Nobel Prize for Physics 2024 was awarded to scientists John J. Hopfield and Geoffrey E. Hinton for their work on
- (a) Neutrino Oscillations
 - (b) Artificial Intelligence
 - (c) Complex Physical Systems
 - (d) Black Holes
21. Which of the following countries is currently facing an outbreak of the highly contagious 'Marburg virus'?
- (a) Rwanda
 - (b) United States
 - (c) Nigeria
 - (d) Brazil

22. The Nobel Prize for Medicine 2024 was awarded to scientists Victor Ambros and Gary Ruvkun for their discovery of which of the following?
- (a) Micro RNA (b) DNA sequencing techniques
(c) CRISPR-Cas9 gene editing (d) Stem cell therapy
23. The term 'Sarco Pod' recently seen in the news, is related to which of the following?
- (a) Autonomous air vehicle (b) Lightweight bullet proof jacket
(c) Open-source large language model (d) Euthanasia machine
24. The idea of the International Day of Older Persons originated from which plan, adopted by the World Assembly on Ageing?
- (a) The Madrid International Plan of Action on Ageing
(b) The Geneva Plan of Action on Ageing
(c) The Vienna International Plan of Action on Aging
(d) The Tokyo Declaration on Aging
25. The Annual Survey of Industries (ASI) in India is released by which of the following organisations/bodies?
- (a) Department of Economic Affairs
(b) NITI Aayog
(c) Reserve Bank of India
(d) Ministry of Statistics and Programme Implementation (MoSPI)
26. Which of the following state governments has recently announced a subsidy of Rs 50 per animal per day for cattle sheds (gaushalas) that take care of indigenous (desi) breeds of cows?
- (a) Uttar Pradesh (b) Bihar
(c) Maharashtra (d) Assam
27. With reference to the World Cotton Day, consider the following statements:
1. October 7 is celebrated each year as World Cotton Day.
 2. It originated from the Cotton Four nations, Burkina Faso, Benin, Chad, and Mali.
- 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. With reference to Surrealism, which of the following statements is/are correct?
1. Surrealism sought to unlock the power of the subconscious mind by depicting dreamlike scenarios.
 2. The origin of Surrealism is traced back to the Dada movement.
- Select the correct answer using the code given below:
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

EXPLANATIONS

1. (c)

Context

- Saudi Arabia launched the Musaned Platform to ensure wage protection and human rights of expat workers.

- **About**
- It is a comprehensive electronic platform to **facilitate the recruitment process of domestic workers**, enhance the protection of rights for all parties involved, and inform employers and domestic workers of their rights and responsibilities.
- **The platform will benefit** workers from 10 African countries, including Sudan and Ethiopia, and nine Asian countries such as India and Bangladesh, the platform enhances transparency and accountability.

2. (c)

The Pandemic Fund Project is a \$25 Million initiative funded by the G20 Pandemic Fund. Established under Indonesia's G20 Presidency, it aims to enhance the capacity of low- and middle-income countries to respond to animal health threats and pandemics.

- It is being implemented through **three implementing entities**: Asian Development Bank (ADB), the World Bank, and the Food and Agriculture Organization (FAO).

3. (d)

What is BRICS?

- It is an acronym that refers to a group of five major emerging national economies: **Brazil, Russia, India, China, and South Africa**.
- **Origin**: The term **BRIC** was coined by **British economist Jim O'Neill** in **2001** to represent emerging economies.
- The group began holding annual meetings starting in **2006** on the sidelines of the **UN General Assembly (UNGA)**, and its success led to formal summits.
- BRICS nations have met annually at formal summits since **2009**.
- **South Africa** was inducted in **2010**.
- **Expansion of BRICS**: **Argentina, Ethiopia, Egypt, Iran, Saudi Arabia, and the UAE** are the six new additions to the BRICS.

4. (d)

The Emissions Gap Report is a UN Environment Programme spotlight report launched annually in advance of the annual Climate negotiations.

- It **tracks the gap** between where global emissions are heading with current country commitments and where they ought to be to limit warming to 1.5°C.
- Each edition **explores ways to bridge the emissions gap**.
- The report assessed countries' **Nationally Determined Contributions (NDCs)**, which they are **required to update every five years**, to determine how much the world might warm if these plans were fully implemented.
- **About The United Nations Environment Program (UNEP)**
- It is the **leading environmental authority** in the United Nations system established in **1972**.
- **The UN Environment Assembly** is the policy-making organ of UNEP.
- **Headquarter**: Nairobi, Kenya.
- **Major Reports**: Global Environment Outlook, The Rise of Environmental Crime Report, Actions on Air Quality, Frontiers Report, Adaptation Gap Report.

5. (a)

Context: Pakistan's parliament recently passed a constitutional amendment bill that stipulates all forms of "riba" or interest must be eliminated before Jan. 1, 2028, a move likely to promote Islamic banking in the country.

- **About**
- Riba refers to the practice of **charging interest on loans**, which is prohibited under Islamic law as it is considered exploitative and unjust. The topic often comes up in discussions about Islamic banking and finance.
- The origin of term interest dates back to the 17th century with the emergence of the banking system at global level.

6. (a)

Context: Recently, the United Kingdom (UK) became the first G7 country to end coal-fired power production when it chose to close down its Ratcliffe-on-Soar power station in Nottinghamshire.

- **About**
- Notably, the UK was also the **first country** where the world's first coal-fired power plant was opened.
- The UK once relied on coal for 97% of its electricity, it was down to almost 30% in 2015, when the country announced to shut all its coal plants within the next decade.
- **What is G7?**
- The Group of Seven (G7) is an informal grouping of seven of the world's advanced economies, including Canada, France, Germany, Italy, Japan, **the United Kingdom**, and the United States, as well as the European Union.

7. (c)

Context

- The Shiromani Gurdwara Parbandhak Committee (SGPC) elections, mandated to be held every five years, were last conducted in 2011.
- **About**
- **The Shiromani Gurdwara Parbandhak Committee (SGPC)** is an important Sikh religious organization responsible for **managing and overseeing the affairs of Sikh gurdwaras** (places of worship) in the state of Punjab, as well as other parts of India and abroad.
- **Origin:** The SGPC was created in response to demands by Sikhs for control over their religious institutions, which were under the influence of **corrupt mahants (priests) appointed by the British** colonial government.
- The SGPC operates under the **Gurdwara Act of 1925**, which grants it authority to manage Sikh religious affairs and institutions.
- **Structure:** It is a democratically elected body with members elected by Sikh voters.

8. (c)

Context

- **The Food and Agriculture Organization (FAO)** and Global Framework on Water Scarcity in Agriculture (WASAG) adopted the **Rome Declaration on Water Scarcity in Agriculture**.
- **About**
- The declaration was launched on the occasion of the **High-level Rome Water Dialogue**, taking place on the sidelines of FAO's annual **World Food Forum (WFF)**.
- **The Declaration was aimed** at addressing water scarcity increasingly exacerbated by the climate crisis.
- **The WASAG initiative** was launched at the United Nations Climate Conference in Marrakesh in **2016** to support countries in addressing water scarcity challenges.

9. (b)

Context: According to the 2024 Global Multidimensional Poverty Index, 1.1 billion people live in acute poverty worldwide.

- **Global Multidimensional Poverty Index**

- The Index has been **jointly published** by the United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI) **since 2010**.
- The index compares more than 100 countries by using **three dimensions** (Health, Education and Living Standards) under **ten indicators** such as inadequate housing, sanitation, electricity, cooking fuel, nutrition, and school attendance.

- **Key findings**

- India (234 million) is the country with the largest number of people in extreme poverty.
- It was followed by Pakistan (93 million), Ethiopia (86 million), Nigeria (74 million) and the Democratic Republic of the Congo (66 million).

10. (b)

In News: The Food and Agriculture Organization (FAO) has inaugurated the 2024 Hand-in-Hand Investment Forum.

- **About Hand-in-Hand Initiative**

- It is a flagship program of the Food and Agriculture Organization (FAO) launched in 2019.
- The initiative focuses on fostering partnerships and targeted investments to address food security, reduce poverty, and promote inclusive economic growth in low- and middle-income countries.
- The initiative focuses on achieving three key Sustainable Development Goals (SDGs):
- Eradicating poverty (SDG 1)
- Ending hunger and malnutrition (SDG 2)
- Reducing inequalities (SDG 10)
- India has **not joined** the Hand-in-Hand Initiative.

11. (d)

Context: With a score of 27.3 in the 2024 Global Hunger Index, India has been ranked at 105th out of the 127 countries and is placed under the “serious” category of the analysis.

- **About**

- The Global Hunger Index is a peer-reviewed annual report, jointly published by **Concern Worldwide and Welthungerhilfe**.
- Based on the values of **four indicators**: Undernourishment; Child stunting; Child wasting; and Child mortality, a GHI score is calculated for each country on a **100-point scale** reflecting the severity of hunger, where 0 is the best possible score (**no hunger**) and 100 is the worst.

- **Key findings**

22 countries with GHI scores of less than 5 are not assigned individual ranks, but rather are collectively ranked 1–22. Somalia was ranked last.

- The goal of Zero Hunger by 2030 now appears unreachable, and if progress remains at the pace observed since the 2016 global GHI score, the world will not reach even low hunger until 2160—more than 130 years from now.

12. (b)

Statement 1 is not correct: The GIAHS initiative does not primarily focus on providing modern technology or financial support but on preserving traditional agricultural practices.

- **Statement 2 is correct:** The main goal of GIAHS is to identify and safeguard eco-friendly traditional farm practices and associated landscapes, agricultural biodiversity, and knowledge systems.
- **Statement 3 is not correct:** GIAHS does not automatically confer Geographical Indication (GI) status to agricultural produce.

13. (c)

Context: The Nobel Prize in Literature 2024 was awarded to South Korean author Han Kang “for her intense poetic prose that confronts historical traumas and exposes the fragility of human life.”

- **About**
- The prize is worth 11 million Swedish crowns (\$1.1 million) and is regarded widely as the world’s most prestigious literary award.
- The Nobel Prize in Literature is awarded by the Swedish Academy, Stockholm, Sweden.

14. (a)

Context

- Taiwan’s navy commander recently claimed that the People's Liberation Army (PLA) is using an ‘anaconda strategy’ to squeeze the island nation.
- **What is Anaconda Strategy?**
- It refers to a military strategy aimed at slowly encircling and cutting off an enemy's resources, effectively "squeezing" them into submission without direct confrontation.
- The strategy was proposed by Union General **Winfield Scott** during the early stages of the **American Civil War**.
- **The primary objective** of this strategy was to suffocate the Confederacy economically and militarily, similar to how an anaconda snake coils around and asphyxiates its prey.
- **China's 'anaconda strategy'** against Taiwan reportedly involves a mix of military maneuvers, psychological tactics, and cyber warfare to eventually weaken Taiwan's defenses.

15. (b)

Context: Japanese organisation Nihon Hidankyo, a grassroots movement of atomic bomb survivors from Hiroshima and Nagasaki who are also known as Hibakusha, won the Nobel Peace Prize 2024.

- **Atomic bombing of Japan**
- In 1945 the United States dropped **two atomic bombs** on Japan to bring an end to **World War-II** and avoid a hugely costly invasion of the Japanese home islands.
- The two bombs killed an estimated 120,000 people in **Hiroshima and Nagasaki**, while many thousands more died of burns and radiation injuries in the following years. The two atomic bombs remain the **only nuclear weapons** used in war.

16. (a)

Context: The 2024 Economics Nobel prize was awarded to Daron Acemoglu, Simon Johnson and James A Robinson “for studies of how institutions are formed and affect prosperity.”

- **Nobel Economics Prize**
- The award is officially known as the **Bank of Sweden Prize in Economic Sciences** in Memory of Alfred Nobel.
- This prize was established in **1968** by the central bank of Sweden as a memorial to Alfred Nobel.
- He is a **19th-century** Swedish businessman and chemist, is known for inventing dynamite and establishing the five original Nobel Prizes.

- The first winners of the economics prize, in **1969**, were **Ragnar Frisch and Jan Tinbergen**.

17. (b)

Context: The International Day of the Girl Child, celebrated on October 11, emphasizes the need to empower and protect girls worldwide, highlighting gender equality, education, and opportunities.

- **About**
- This day stems from the 1995 World Conference on Women in Beijing, which established the **Beijing Declaration**, recognizing **girls' unique rights and needs**.
- In 2011, the UN General Assembly designated October 11 as a day to raise awareness about the challenges girls face.
- The 2024 theme, "**Girls' Vision for the Future**," reflects the hope and determination of girls globally to create a better future.

18. (b)

Statement 1 is not correct but statement 2 is correct : The World Wildlife Fund's (WWF) Living Planet Report 2024 reveals a catastrophic 73% decline in monitored wildlife populations over the past 50 years (1970-2020)

- **WWF's flagship publication, released every two years**
- It is a comprehensive study of trends in global biodiversity and the health of the planet.
- The Living Planet Index (LPI) tracks trends in nearly 35,000 populations of 5,495 species.
- Freshwater populations experienced the steepest decline at 85%, followed by terrestrial (69%) and marine (56%).

19. (b)

Context: World Mental Health Day is observed annually on October 10.

- **World Mental Health Day**
- It was first initiated in 1992 by the **World Federation for Mental Health (WFMH)**.
- This global observance aims to raise awareness about mental health issues and mobilize efforts in support of mental health care worldwide.
- The importance of World Mental Health Day is underscored by the growing recognition of the profound impact mental health has on individuals, families, and communities.
- The **theme** for 2024, **Mental Health at Work**, highlights the critical connection between mental health and the workplace.

20. (b)

Context: John J. Hopfield and Geoffrey E. Hinton are awarded with the 2024 Nobel Prize in Physics for foundational discoveries and inventions that enable machine learning with artificial neural networks.

- **About**
- **Artificial Neural Networks** are designed to mimic the workings of the human brain, processing information through **interconnected nodes, or artificial neurons**.
- **John Hopfield** created the **Hopfield Network**, by using the concept of atomic spin, which stores and recalls patterns similar to how memory works.
- **Geoffrey Hinton** developed the **Boltzmann Machine**, a neural network that can automatically identify patterns, such as recognizing elements in images, and uses methods from statistical physics to learn by example.
- **Significance**

- Today, ANNs form the backbone of Deep Learning, powering AI systems in image recognition, natural language processing, and autonomous systems—revolutionizing the way AI interacts with the world.

21. (a)

Context: Rwanda is currently facing an outbreak of the highly contagious Marburg virus.

- **Marburg virus**
- The rare virus was first identified in 1967 after it caused an outbreak of disease in the laboratories across Marburg, Germany, and Belgrade, Serbia when people died after being exposed to the virus while researching on monkeys.
- The virus is transmitted to people from fruit bats and spreads among humans through direct contact with the bodily fluids of infected people, surfaces and materials.
- According to WHO, symptoms of Marburg virus include fever, muscle pains, diarrhoea, vomiting and, in some cases, death through extreme blood loss. The virus causes haemorrhagic fever and has a fatality ratio of up to 88%. It is in the same family as the virus that causes Ebola virus disease.

22. (a)

Context

- The Nobel Prize for Medicine 2024, has been awarded to scientists **Victor Ambros and Gary Ruvkun** for their **discovery of microRNA**.
- **About**
- The discovery revealed a **new dimension to gene regulation** where MicroRNAs are fundamentally important for how organisms develop and function.
- **Proteins formation:** The body makes proteins in a complex process with two broad steps.
- **In the transcription step**, a cell copies a DNA sequence into **messenger RNA (mRNA)** in the nucleus. The mRNA moves from the nucleus, through the cell fluid, and attaches itself to the ribosome.
- **In the translation step**, another type of RNA called **transfer RNA (tRNA)** brings specific amino acids to the ribosome, where they are linked together in the order specified by the mRNA to make the protein.
- **Micro RNA**, or miRNA, regulates the production of proteins by bonding with and subsequently **silencing the mRNA** at an appropriate juncture. The process is called **post-transcriptional gene regulation**.

23. (d)

Context: Recently, a 64-year-old US woman took her own life inside a controversial suicide capsule called Sarco pod at a Swiss woodland retreat.

- **What is the Sarco pod?**
- The Sarco is a coffin-sized, **airtight euthanasia machine** developed by **Exit International** in 2019.
- Named after the **sarcophagus**, it consists of a 3D-printed detachable capsule on a stand with a canister of liquid nitrogen.
- When activated by the user, nitrogen gas fills the pod replacing oxygen, allowing users to die by nitrogen-induced asphyxia.

24. (c)

Context

- The International Day of Older Persons, is commemorated on **1 October** each year.
- **About**
- **Origin:** The idea was initiated by the United Nations. It stems from the **Vienna International Plan of Action on Aging**, which was adopted in **1982** by the World Assembly on Ageing.
- **UN General Assembly Resolution:** In **1990**, the UN General Assembly formally established October 1 as the International Day of Older Persons through Resolution 45/106.
- **Objectives:** To raise public awareness about the opportunities and challenges with ageing populations and to mobilize the families, community groups and stakeholders to address the difficulties faced by older people.
- **Theme for 2024:** 'Ageing with Dignity: The Importance of Strengthening Care and Support Systems for Older Persons Worldwide'.

25. (d)

The Annual Survey of Industries (ASI) is released by the Ministry of Statistics and Programme Implementation (MoSPI).

- Annual Survey of Industries is conducted to provide insight into the change in composition, growth and structure of various **manufacturing industries** in terms of **output, value added, employment, and capital formation**.
- It provides valuable input to the **National Accounts Statistics** at national and state level.

26. (c)

Context: The Maharashtra government announced a subsidy of Rs 50 per animal per day for cattle sheds (gaushalas) that take care of indigenous (desi) breeds of cows.

- **About**
- According to the 20th Livestock Census conducted in 2019, Maharashtra had 46,13,632 cows under the "indigenous/ nondescript" category.
- This was 8.7% less than the population of 50,53,490 for these cows recorded in the previous Census (2012).

27. (c)

Both the statements are correct: October 7 is celebrated each year as World Cotton Day.

- The idea for World Cotton Day originated from the **Cotton Four nations, Burkina Faso, Benin, Chad, and Mali** aiming to promote cotton by-products and their markets.
- The first World Cotton Day (WCD) event was initiated in Geneva and observed on October 7, 2019.

28. (c)

Context

- The year 2024, marks 100 years of Surrealism, an art and literature movement in which unusual or impossible things are shown happening.
- **What is Surrealism?**
- Surrealism is an influential **20th-century art and literary movement** known for depicting strange or impossible scenarios, often blending the dreamlike with reality.
- It aimed to unlock the power of the subconscious mind, **liberating thought from the confines of reason** and conventional logic.

- **Origins of Surrealism**

- The roots of Surrealism can be traced to the Dada movement, an anti-establishment art movement, developed around 1915.
- However, there are some fundamental differences between the two.
- **Its formal birth** is traced to the publication of the **surrealist manifesto in October 1924** by French poet and writer Andre Breton.

