

# **DAILY MCQs COMPILATION** *with* **EXPLANATIONS**

**DECEMBER, 2024**

**NEXT IAS**

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# HISTORY, ART & CULTURE

1. Which of the following Sufi orders played a significant role in popularizing the concept of "Piran-e-Pir" (spiritual guide of spiritual guides)?  
(a) Chishti (b) Suhrawardi  
(c) Qadri (d) Naqshbandi
2. The Sanchi Stupa is a significant Buddhist monument. Which of the following dynasties played a crucial role in its development and expansion?  
(a) Maurya (b) Gupta  
(c) Kushana (d) Satavahana
3. (a)tmakatha (1946), and India Divided (1946) are the literary works of which among the following personalities?  
(a) Dr. B.R. Ambedkar (b) Mahatma Gandhi  
(c) Dr. Rajendra Prasad (d) Jawaharlal Nehru
4. The current white marble dome of the Ajmer Sharif Dargah was built during the reign of which of the following Mughal emperors?  
(a) Humayun (b) Akbar  
(c) Jahangir (d) Aurangzeb
5. Popularly known as the Master Moshai, he was one of the first recipients of the Padma Vibhushan. In 1976, the Archaeological Survey of India recognized his works as 'art treasures' under the Antiquities and Art Treasures Act of 1972.  
Which of the following personalities has been described above?  
(a) Raja Ravi Varma (b) Nandalal Bose  
(c) Abanindranath Tagore (d) Benode Behari Mukherjee
6. (c)onsider the following statements regarding the Hornbill Festival:
  1. The Hornbill Festival is named after the bird Hornbill.
  2. It is celebrated exclusively by the Angami tribe of Nagaland.
  3. The festival is held at the heritage village of Kisama.Which of the statements given above are correct?  
(a) 1 and 2 only (b) 1 and 3 only  
(c) 2 and 3 only (d) 1, 2, and 3
7. Which of the following best describes the cultural significance of the Eklingji Temple?  
(a) It is the coronation site of the Mewar kings.  
(b) It is considered the spiritual and administrative seat of the Mewar kingdom, with the deity as the real ruler.  
(c) It served as a fort and a religious site during the 6th century.  
(d) It is a pilgrimage site originally linked to the Nath sect of Hinduism.

8. He was the last Governor-General of India. He was also one of the first to receive the highest civilian award in India.  
Which among the following personalities is described above?
- (a) Sarvepalli Radhakrishnan  
(b) Jawaharlal Nehru  
(c) Chakravarti Rajagopalachari  
(d) None of the above
9. He was a freedom fighter and social reformer. In 1908, he published Swadesa Geethangal, a collection of 16 patriotic poems. He is often referred to as "Mahakavi" (Great Poet) and is best known for his patriotic poems.  
Which of the following personalities has been described above?
- (a) Rabindranath Tagore (b) Bankim Chandra Chattopadhyay  
(c) Subramania Bharati (d) Lala Lajpat Rai
10. With reference to the Vaikom Satyagrah, consider the following statements:
1. The movement was initiated against the practice of growing opium.  
2. It was led by T.K. Madhavan, K. Kelappan and E.V. Ramasamy Periyar.  
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. National Maritime Heritage Complex (NMHC) is being developed in which of the following states?
- (a) Gujarat (b) Maharashtra  
(c) Tamil Nadu (d) West Bengal
12. (d)urgadi Fort, recently seen in the news, is located in which of the following states?
- (a) Rajasthan (b) Maharashtra  
(c) Tamil Nadu (d) Gujarat
13. He became increasingly involved with the struggle for independence. It was his role in the Bardoli Satyagraha of 1928 that elevated him to a new pinnacle of national glory. In 1931, he was elected President of the Indian National Congress at its Karachi Session. He earned the reputation of 'Iron Man' because of the manner in which he brought about and maintained internal stability in the wake of the partition of the country.  
Who among the following personalities described above?
- (a) Jawaharlal Nehru (b) Mahatma Gandhi  
(c) B. R. Ambedkar (d) Vallabhbhai Patel
14. He was a member of the revolutionary organization called the Hindustan Socialist Republican Association. He planned the Kakori train incident and was also involved in the Dakshineswar bombing.  
Which of the following personalities has been described above?
- (a) Rajendra Nath Lahiri (b) Prafulla Chaki  
(c) Udham Singh (d) Khudiram Bose
15. Tansen was a musician in the court of which of the following Mughal Emperor?
- (a) Humayun (b) Jahangir  
(c) Akbar (d) Aurangzeb



16. Who among the following was the Portuguese Governor-General, during liberation of Goa in 1961?
- (a) Francisco de Almeida (b) Afonso de Albuquerque  
(c) Nuno da Cunha (d) Manuel Antonio Vassalo e Silva
17. He made groundbreaking contributions to 20th-century Mathematics in areas like number theory, infinite series, and continued fractions. His birth anniversary is celebrated as National Mathematics Day.
- Which of the following personalities has been described above?
- (a) C.V. Raman (b) P.C. Mahalanobis  
(c) Aryabhata (d) Srinivasa Ramanujan
18. The National Farmers Day also known as Kisan Diwas is celebrated on 23rd December every year to mark the Birth Anniversary of which among the following personalities?
- (a) Lal Bahadur Shastri (b) Choudhary Charan Singh  
(c) M.S. Swaminathan (d) Lala Lajpat Rai
19. Which of the following is correct about the Bru (or Reang) tribe?
- (a) They practice terrace farming in the plains.  
(b) They are predominantly found in the Western Ghats of India.  
(c) They practice Jhum cultivation in hilly regions.  
(d) They are known for living in stone houses in deserts.
20. With reference to the *Belagavi Session of the Indian National Congress (INC)*, consider the following statements:
1. It was presided over by Mahatma Gandhi, the only time he served as the Congress president.
  2. Mahatma Gandhi reiterated his commitment to non-cooperation and civil disobedience as effective tools against British rule.
- 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. With reference to Sardar Udham Singh, which of the following statements is/are correct?
1. He was an Indian revolutionary belonging to the Ghadar Party and Hindustan Socialist Republican Association (HSRA).
  2. He is best known for assassinating General O'Dwyer in revenge for the Jallianwala Bagh massacre.
- 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. Which of the following personalities authored the book "India's Export Trends and Prospects for Self-Sustained Growth" (1964), critiquing India's inward-oriented trade policy?
- (a) Amartya Sen (b) Dr. D. Subbarao  
(c) Raghuram Rajan (d) Dr. Manmohan Singh
23. Consider the following statements with reference to the Jallikattu:
1. It is a traditional sport of Tamil Nadu.
  2. It is usually held during the Pongal season.

Which of the statements given above is/are correct?

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

24. With reference to Khwaja Moinuddin Chishti, which of the following statements is/are correct?

1. Sheikh Nizamuddin Auliya was one of his prominent disciples.
2. He earned the title Garib Nawaz for his selfless service.

Select the correct answer using the code given below:

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

### EXPLANATIONS

1. (a)

The Chishti order, particularly through the teachings of Khwaja Moinuddin Chishti and Nizamuddin Auliya, popularized the concept of "Piran-e-Pir." This concept emphasizes the importance of spiritual guidance and the chain of spiritual masters.

2. (a)

**In News:** The annual Mahabodhi Mahotsav, a two-day event celebrating Buddhist culture and heritage, is being held at the UNESCO World Heritage Site of Sanchi, Madhya Pradesh.

The Mauryan Emperor Ashoka, a great patron of Buddhism, played an important role in the development of the Sanchi Stupa. He initiated the construction of the original stupa in the 3rd century BCE, which was later expanded and embellished by subsequent dynasties like the Shungas and Satavahanas.

3. (c)

**Context:** Prime Minister Narendra Modi paid tributes to the country's first President, Bharat Ratna Dr. Rajendra Prasad on his birth anniversary.

**About: Dr. Rajendra Prasad**

- He was born on **3rd December, 1884** in the Siwan district of Bihar.
- He became the President of the Indian National Congress (INC) thrice—in 1934, 1939, and 1947.
- He was imprisoned by British authorities during the **Salt Satyagraha of 1931** and the **Quit India Movement of 1942**.
- Two of his most notable literary contributions are **Atmakatha** (1946), his autobiography, and **India Divided** (1946).
- Additionally, in the early 1920s, he served as the **editor** of the Hindi weekly **Desh** and the English biweekly **Searchlight**.

4. (a)

**Context:** An Ajmer court has accepted a Hindu Sena petition claiming a Shiva temple beneath the Ajmer Sharif Dargah and seeking an archaeological survey to verify it.

**About**

- Around 1192 CE, **Sufi saint Moinuddin Chishti** (also spelt Muinuddin or Mu'in al-din) came to Ajmer to preach Islam.
- He later established the popular **Chishtiyya order** in Sunni class, and after his death in 1236, the site became a revered center, marking the beginning of Ajmer Dargah's history.

### Development of the shrine

- In the 1460s, the **Khalji rulers of Malwa** (not to be confused with the Khalji sultans of Delhi) built a **pucca mausoleum** for the pir, with Sultan Mahmud Khan Khalji and his son Ghiyasuddin constructing the **Buland Darwaza**, the dargah's grand northern gateway.
- The current **white marble dome** of the Ajmer Dargah was built in 1532, during the reign of the Mughal emperor **Humayun**.
- In the early 1570s, Akbar constructed a mosque, now known as the **Akbari Masjid**, near the southern entrance of the shrine.
- In 1616, Jahangir added a '**gold railing with lattice work**' around the saint's tomb.

### 5. (b)

**Context:** December 3rd marks the birth anniversary of Nandalal Bose, who is recognized as one of the pioneers of modern Indian art.

#### About: Nandalal Bose

- **Birth:** On December 3, 1882 in Munger (Bihar), and was popularly known as the **Master Moshai**.
- **Work:** He created the iconic black and white picture, called a linocut, of **Mahatma Gandhi marching with his stick** during the Dandi March to protest the Salt Tax. The illustrations in the **Constitution of India** were conceived and created by Bose and his team.
  - He also designed the emblems of prestigious government awards, such as **Bharat Ratna and Padma Shri**.
- **Awards and recognitions:** He was one of the **first recipients** of the Padma Vibhushan, and in 1976, the Archaeological Survey of India recognized Bose's works as '**art treasures**' under the Antiquities and Art Treasures Act of 1972.
- **Death:** He passed away on April 16, 1966.

### 6. (b)

**In News:** The Hornbill Festival has completed 25 years.

#### Hornbill Festival

- **About:** Organized annually since 2000 by Nagaland state. Named after the Hornbill, a symbol of boldness and grandeur in Naga folklore.
- **Location:** Held at Kisama Heritage Village, a cultural hub preserving Naga heritage through 17 indigenous houses (Morungs) representing each tribe.
- **Significance:** Nagaland, known as the "**Land of Festivals**," is home to 17 major tribes, each with unique festivals and traditions.
  - The festival promotes inter-tribal interaction and preserves the state's heritage.
  - Reflects India's unity in diversity, where various cultural practices coexist harmoniously to form a strong, resilient national identity.

### 7. (b)

#### About Eklingji Temple

- **Dedicated Deity:** Lord Shiva, worshipped as Ekling Nath, the ruling deity of the Mewar kingdom.
- **Location:** Kailashpuri, about 22 km from Udaipur, Rajasthan.
- **Built in:** 8th century by **Bappa Rawal**, the **founder of the Mewar dynasty**.
  - Represents the spiritual and administrative power of the Mewar kings, who ruled as representatives of Lord Ekling Nath.
- **Architectural Style:** The temple complex comprises 108 temples, showcasing intricately carved stone architecture.

- Features a **four-faced Shiva Lingam made of black marble**, symbolizing the **four forms of Lord Shiva**.
- Originally linked to the **Pashupata sect**, then Nath sect, and later to Ramanandis.
- **Cultural Significance:**
  - **Royal Connection:** Historically managed by the Mewar royal family, who consider Lord Ekling Nath the real ruler of Mewar.
  - The Diwan of Mewar acts as the deity's earthly representative.

#### 8. (c)

Parliamentaries have paid floral tribute to the **Chakravarti Rajagopalachari on his Birth Anniversary**.

- Often referred to as **Rajaji**, he was a prominent Indian leader, independence activist, and statesman. He was born on December 10, 1878.
- **Political Leadership: He was the last Governor-General of India.** After Independence, he was appointed as the Governor of West Bengal.
  - After the death of Sardar Patel in 1950, Shri Rajagopalachari was appointed as the Minister of Home Affairs in the Government of India.
- **Bharat Ratna:** In recognition of his commendable service to the nation, Shri C. Rajagopalachari was awarded 'Bharat Ratna' in 1954.
  - **He was the first to receive the highest civilian award.**

#### 9. (c)

##### Context

- PM Modi paid homage to poet and writer Subramania Bharati on his birth anniversary on December 11.

##### About Subramania Bharati

- C. Subramania Bharati, known as Mahakavi Bharati (Great Poet), was born in 1882, in **Ettayapuram, Tamil Nadu**.
- He was a visionary **poet, journalist, freedom fighter, and social reformer**.

##### A Poet and Nationalist

- Bharati knew 32 languages, including three foreign languages.
- His famous poems include **Kannan Pattu, Nilavum Vanminum Katrum, Panchali Sabatam, and Kuyil Pattu**.
- In **1908**, he published **Swadesa Geethangal**, a collection of **16 patriotic poems**.
- He considered **Sister Nivedita** as his Guru and the personification of **Bharat Mata**.

##### Bharati as a Journalist

- He began his journalistic career as a sub-editor at **Swadesamitran in 1904**.
- In **1906**, he launched "**India**" the Tamil newspaper, advocating Liberty, Equality, and Fraternity.
- He edited journals like **Vijaya** to propagate revolutionary ideas.

##### Bharati as a Social Reformer

- He opposed the caste system, supported temple entry for Dalits, and championed women's rights, education, and widow remarriage.
- He condemned child marriage and dowry, promoting gender equality.

#### 10. (b)

**Statement 1 is not correct:** 2024 marks the **100 years of Vaikom Satyagrah (1924)**.

- **Cause:** The movement was initiated against the **practice of untouchability**.

- In Vaikom in the **erstwhile Travancore princely State**, members of the lower castes, particularly Dalits, were denied the right to walk on roads leading to the Vaikom Shiva Temple.

**Statement 2 is correct: Leadership:** It was led by **T.K. Madhavan, K. Kelappan**, and other prominent leaders.

- Mahatma Gandhi also supported the cause, sending his advice, although he did not physically participate in the protests initially.
- **E.V. Ramasamy Periyar**, a prominent social reformer and leader of the Self-Respect Movement, also lent support to the movement.

11. (a)

**National Maritime Heritage Complex (NMHC):** It is being developed in Lothal, Gujarat - home to the world's first manmade dock, and a major site of Indus Valley Civilization.

- Academic session at the NMHC showcased how the NMHC is poised to become a symbol of India's maritime heritage and its vision for a sustainable future.

12. (b)

Durgadi Fort is a historical fort located in the **town of Durgadi, near Kalyan in the state of Maharashtra**.

- It is situated on the **banks of the Ulhas River**.
- The fort dates back to the **15th century** and was originally **built by the Adil Shahi Sultanate and later modified by the Marathas**.
- Over time, it came under the control of various rulers, **including the Mughals and the Marathas**.
- In the 18th century, the fort was an important part of the **Maratha defense system in the region**.

13. (d)

**In News :** The Prime Minister Shri Narendra Modi paid tributes to Sardar Vallabhbhai Patel on his death anniversary.

- **Sardar Vallabhbhai Patel's Early Life:** Born on October 31, 1875, in Nadiad, Gujarat. He was a successful lawyer before becoming involved in the independence movement.
- Kheda Satyagraha (1918): Patel's leadership in the Kheda Satyagraha marked a turning point, bringing him into public service under Mahatma Gandhi's guidance.
- **Bardoli Satyagraha (1928):** His role in this peasant movement earned him the title of 'Sardar', highlighting his organizational skills and dedication.
- After independence, Patel worked to integrate over 560 princely states into India, securing the nation's territorial unity.
- On August 15, 1947, Patel became the first Deputy Prime Minister and Home Minister of India, also overseeing the Information and Broadcasting Ministry.
- **Elected President of the Indian National Congress in 1931** during a turbulent time for the nation.
  - Played a pivotal role in the independence movement and became one of the foremost leaders in India's freedom struggle.
- Known as the "Iron Man of India" for his commitment to national integration.

14. (a)

**Context:** Freedom fighter Rajendra Nath Lahiri's death anniversary was observed.

**About: Rajendra Nath Lahiri**

- Born in 1901, in Pabna district of the Bengal Presidency.

- He was a member of revolutionary organization called the **Hindustan Socialist Republican Association**.
- He planned the **Kakori train incident** along with Chandra Shekhar Azad and was also involved in the **Dakshineswar bombing**.
- He was hanged on **17 December 1927** in the Gonda Jail (Uttar Pradesh).

15. (c)

Tansen (16th Century) was a legendary **Indian classical musician** and one of the “**Navaratnas**” (**nine jewels**) in the court of the **Mughal Emperor Akbar**.

- Tansen is known for his mastery of **Hindustani classical music** and for his contributions to the development of **several ragas**.
- Tansen was honored with the **prefix ‘Miyan’ from Emperor Akbar** and from that day onwards he came to be known as MiyanTansen.

16. (d)

#### Context

- Goa Liberation Day is celebrated every year on **December 19** to mark the freedom of Goa from Portuguese rule in **1961**.

#### Background

- The Portuguese arrived in Goa under **Afonso de Albuquerque** in **1510**, making it one of their longest-held overseas territories.
- While India gained independence in 1947, Goa, along with Daman and Diu, remained under Portuguese control.

#### Operation Vijay

- It was the codename for the military action undertaken by India to liberate Goa.
- The operation began on December 17, 1961, and lasted for two days.
- **On December 19, 1961**, the Portuguese Governor-General **Manuel Antonio Vassalo e Silva** surrendered to Indian forces.

17. (d)

**Context:** Every year, Srinivasa Ramanujan’s birth anniversary on December 22 is celebrated as **National Mathematics Day**.

#### Srinivasa Ramanujan (1887-1920)

- Born in Erode, Tamil Nadu, he reshaped the 20th century mathematics with his various contributions in several mathematical domains, including mathematical analysis, **infinite series, continued fractions, number theory**, and game theory.
- 1729 is known as the Ramanujan number which is the sum of the cubes of two numbers 10 and 9.
- In 1918, Ramanujan became the second Indian to be included as a Fellow of the Royal Society.

18. (b)

**Context:** The National Farmers Day also known as Kisan Diwas is celebrated on 23rd December every year.

#### About

- National Farmers Day was established in **2001** and it commemorates the birth anniversary of **Chaudhary Charan Singh**, India’s fifth Prime Minister, known for his advocacy for farmers’ rights.
- He served as Prime Minister from 1979 to 1980 and was instrumental in land reforms, agricultural productivity improvements, and securing farmers’ rights.



- Kisan Diwas highlights the challenges faced by farmers, including fair pricing, climate change, and the need for modern agricultural technologies.

19. (c)

The Bru (or Reang) tribe are traditionally known for practicing Jhum cultivation, also known as slash-and-burn agriculture. This method involves clearing patches of forest land, cultivating crops for a few years, and then moving on to a new area, allowing the forest to regenerate. This is a common practice among many tribal communities in hilly regions of Northeast India. The Bru tribe is primarily found in the northeastern states of Tripura, Mizoram, and Assam. These states have hilly terrain suitable for Jhum cultivation.

20. (c)

**In News:** The **Indian National Congress (INC)** has planned a series of events in **Belagavi** to mark the 100th anniversary.

**Statement 1 is correct**

- **Belagavi Session of the INC (December 26-27, 1924)** was the **39th session of the INC** that took place in **Belagavi (then Belgaum), Karnataka**. It was a period marked by intense political activity and growing momentum for India's freedom movement.
- It was **presided over by Mahatma Gandhi**, the **only time he served as the Congress president**.

**Statement 2 is correct**

- Mahatma Gandhi reiterated his **commitment to non-cooperation and civil disobedience** as effective tools against British rule.
  - These principles became the cornerstone of subsequent movements, including the **Salt March and Quit India Movement**.

21. (c)

**Context**

- On December 26, India commemorated the 125th Birth Anniversary of Udham Singh—a symbol of courage, justice, and unwavering determination.

**About**

- **Udham Singh**, born as **Sher Singh** on December 26, **1899**, in Sunam, Punjab, was a passionate patriot and a symbol of unwavering determination.
- He was an Indian revolutionary belonging to the **Ghadar Party** and **Hindustan Socialist Republican Association (HSRA)**.

**Assassination of General O'Dwyer**

- Sardar Udham Singh is best known for assassinating **General O'Dwyer**, the **former lieutenant governor of undivided India's Punjab, in 1940**.
- The assassination was done in revenge for the **Jallianwala Bagh massacre** in Amritsar in **1919**.
- General O'Dwyer was responsible for the massacre of which Singh himself was a survivor.

22. (d)

**Context:** India mourns the demise of its former Prime Minister, Dr. Manmohan Singh.

**About: Dr. Manmohan Singh**

- Born in 1932 in Gah, now in Pakistan, he held almost every top economic position in India, including Finance Minister, Governor of the Reserve Bank of India, Chief Economic Advisor, and Deputy Chairman of the Planning Commission.
- As the Finance Minister under Prime Minister P.V. Narasimha Rao, he spearheaded groundbreaking reforms that transformed India from a closed, socialist economy into one of the fastest-growing economies in the world.

- He later served as the 14th Prime Minister of India from 2004 to 2014. During his tenure, his government executed several key legislations and projects, including the National Rural Health Mission, Unique Identification Authority, National Rural Employment Guarantee scheme and Right to Information Act.
- The high point of his 10-year-long Prime Ministership was his handling of the Indo-U.S. nuclear deal that ended India's nuclear isolation.
- He also authored the book "**India's Export Trends and Prospects for Self-Sustained Growth**" (1964), critiquing India's inward-oriented trade policy.

### 23. (c)

**Context:** The State government of Tamil Nadu has issued an elaborate Standard Operating Procedure (SOP) to be followed to ensure the safe conduct of Jallikattu events in 2025.

#### Jallikattu

- Also known as sallikkattu, it is a **traditional sport of Tamil Nadu** and is usually held during the **Pongal season**.
- It is a **sport where men compete against each other** to hold on to the humps of agitated bulls that are released into an open arena.
- **Historical linkages:** Jallikattu is a dated tradition. An ancient reference to bull taming is found in a seal discovered at **Mohenjo-daro**, which is dated between **2,500 BC and 1,800 BC**.
  - The sport was called **Yeru thazhuval** or "embracing the bull".

### 24. (c)

#### Context

- The 813th Urs of Sufi saint Khwaja Moinuddin Chishti begins with a flag ceremony at Durgah Khwaja Saheb, Ajmer.

#### Khwaja Moinuddin Chishti

- **Early Life:** Moinuddin was a revered Sufi saint, born in **1141 CE in Persia** (modern-day Iran) and believed to be a descendant of Muhammad.
- **Spiritual Training:** Khwaja Moinuddin received formal education in **Bukhara and Samarkand**, centers of Islamic learning.
  - After encountering the mystic **Ibrahim Qandozi**, he set out on a spiritual journey.
  - He was later initiated into the Chishti Sufi order by **Khwaja Usman Harooni near Herat**.
- **In 1192 CE, Moinuddin arrived in Ajmer**, during the decline of the Chauhan dynasty following its defeat by Muhammad of Ghor.
- **Disciples:** Khwaja Moinuddin's teachings were carried forward by prominent disciples like **Qutbuddin Bakhtiyar Kaki, Baba Fariduddin, Nizamuddin Auliya, and Chirag Dehalvi**.
- He earned the title "**Garib Nawaz**" (**friend of the poor**) for his selfless service.





# ECONOMY

- 1 Which of the following statements is correct about the Index of Eight Core Industries (ICI)?
  - (a) It is released by the Reserve Bank of India.
  - (b) It is a leading indicator of economic growth.
  - (c) It is calculated on a quarterly basis.
  - (d) It includes all sectors of the Indian economy.
- 2 VadHAVAN Port, is being developed in which of the following regions?
  - (a) Maharashtra
  - (b) Gujarat
  - (c) Tamil Nadu
  - (d) Andaman & Nicobar Islands
- 3 Which of the following is NOT a characteristic of Zaid crops in India?
  - (a) They are sown between the Rabi and Kharif seasons.
  - (b) They require heavy rainfall for optimal growth.
  - (c) They often include seasonal fruits and vegetables.
  - (d) They have a shorter growing season compared to Kharif and Rabi crops.
- 4 Which of the following best describes a windfall tax?
  - (a) A tax applied only to multinational corporations operating in foreign countries.
  - (b) A tax levied on unexpected or unusually high profits, typically due to external factors.
  - (c) A tax specifically designed for the energy sector to promote renewable resources.
  - (d) A tax collected on long-term capital gains from investments.
- 5 With reference to the Coastal Shipping Bill (2024), consider the following statements:
  - 1 It proposes the creation of a National Database for coastal shipping to ensure transparency and facilitate information sharing.
  - 2 It permits inland vessels to engage in coastal trading under certain conditions.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 Banking Laws (Amendment) Bill, 2024, consider the following statements:
  - 1 It allows bank account holders to have up to four nominees in their accounts.
  - 2 It redefines the 'substantial interest' limit for directorships, increasing the cap to 50 crore.
  - 3 It increases the tenure of directors (excluding chairman and whole-time director) in cooperative banks to 20 years.

How many of the statements given above are correct?

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

**7** Consider the following statements regarding the Geographical Indication (GI) tag and Gharchola:

- 1 Gharchola is a traditional wedding sari from Gujarat.
- 2 The Geographical Indication (GI) tag is valid for a period of 15 years only.
- 3 Gharchola is traditionally worn during Hindu and Jain weddings.
4. The GI tag provides legal protection to products by preventing unauthorized use.

Which of the above statements is/are correct?

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

**8** With reference to the Food Safety and Standards Authority of India (FSSAI), consider the following statements:

- 1 It is an autonomous body under the Ministry of Food Processing Industries.
- 2 FSSAI has categorised the packaged drinking/mineral water as high-risk food.

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 the Bitcoin, consider the following statements:

- 1 It was introduced in 2009 by an anonymous creator known as Satoshi Nakamoto.
- 2 It's the world's first decentralized cryptocurrency.

Which of the statements given above is/are correct?

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

**10** Which among the following personalities led the Mahad Satyagraha in 1927?

- (a) Jawaharlal Nehru (b) Mahatma Gandhi  
(c) Subhash Chandra Bose (d) Dr. Bhimrao Ramji Ambedkar

**11** With reference to the Annual Survey of Industries (ASI), consider the following statements:

- 1 It covers the factories registered under the Factories Act of 1948 and is being conducted under the Collection of Statistics Act of 2008.
- 2 It covers all electricity undertakings engaged in generation, transmission and distribution of electricity, registered with the Central Electricity Authority (CEA).

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 Coconut Plantation, consider the following statements:

- 1 It prefers sandy loam or well-drained soils with low organic matter.
- 2 It requires high humidity and average annual temperatures of 27°C.

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 sectors in India currently prohibit Foreign Direct Investment (FDI)?
- (a) Power generation (b) Infrastructure development  
(c) Textile manufacturing (d) Chit funds
- 14** With reference to the Reserve Bank of India (RBI), consider the following statements:
- 1 It is a statutory body that was set up based on the recommendations of the Lee Commission.
  - 2 The Appointments Committee of the Cabinet, led by the Prime Minister, approves the RBI governor's appointment.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 15.** (c)onsider the following statements:
- 1 Cess and Surcharge are additional taxes that are levied over and above the basic tax liability.
  - 2 Surcharge does not have a specific earmarked purpose and goes into the general revenue fund.
- 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.** (c)onsider the following statements:
- 1 Interest and/or installments of principal remain overdue for more than 90 days.
  - 2 The installment of principal or interest remains overdue for one crop season for long-duration crops.
- Which of the above is /are conditions for classification of Non-Performing Assets (NPAs) in India?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 17.** (c)onsider the following pairs:
- | National Waterways (NWs) | Rivers        |
|--------------------------|---------------|
| 1 NW 1                   | : Ganga       |
| 2 NW 2                   | : Brahmaputra |
| 3 NW 3                   | : Barak       |
- 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
- 18.** Which among the following are the factors responsible for the growth of Medical Tourism in India?
- 1 Cost-Effective Treatment
  - 2 High-Quality Healthcare
  - 3 Long Wait Times
- 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

- 19.** With reference to the Minimum Support Price, consider the following statements:
- 1 It is a form of market intervention by the Government to insure agricultural producers against any sharp fall in farm prices.
  - 2 The Government of India fixes MSP for 16 mandated agricultural crops.
- 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 India's Strategic Petroleum Reserves (SPR) program, consider the following statements:
- 1 The SPR program is managed by the Oil and Natural Gas Corporation (ONGC).
  - 2 The Phase I of the program created a strategic storage capacity of 5.33 million metric tonnes.
  - 3 The Phase II of the program includes new facilities at Chandikhol and Padur.
- Which of the statements given above is/are correct?
- (a) 1 only  
(b) 2 and 3 only  
(c) 1 and 3 only  
(d) 1, 2 and 3
- 21.** With reference to the The Real Effective Exchange Rate (REER), consider the following statements:
- 1 It is an indicator of the international competitiveness of a nation in comparison with its trade partners.
  - 2 A higher REER improves export competitiveness and makes imports more expensive.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 22.** With reference to the Annual Survey of Unincorporated Sector Enterprises (ASUSE) 2023-24, which of the following statements is/are correct?
- 1 The survey captures unincorporated non-agricultural establishments belonging to Manufacturing and Trade only.
  - 2 The percentage of female-owned proprietary establishments has increased to 26.2% in 2023-24.
- 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
- 23.** Consider the following statements:
- 1 Non-performing assets (NPAs) are loans or advances where the borrower has stopped paying interest or principal repayments.
  - 2 Higher Gross non-performing assets (GNPA) Ratio indicates a healthier loan portfolio with fewer loans at risk of default.
- 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. What does the current account deficit (CAD) indicate for a country?
- A country's exports exceed its imports
  - A country's imports exceed its exports
  - A country's external debt exceeds its total assets
  - A country's remittances exceed its exports
25. Consider the following statements:
- India is the world's second-largest fish producer, contributing 8% to global output
  - The fisheries sector is recognized as the 'Sunrise Sector'.
  - World Fisheries Day is observed every year on November 21st.
- How many of the above statements are correct?
- Only one
  - Only two
  - All three
  - None

### EXPLANATIONS

1. (b)

#### About Index of Eight Core Industries (ICI)

- The ICI encompasses industries such as Coal, Crude Oil, Natural Gas, Refinery Products, Fertilizers, Steel, Cement, and Electricity, which together account for **40.27% of the Index of Industrial Production (IIP)**.
  - Index of Industrial Production (IIP) is an index that **tracks manufacturing** activity in different sectors of an economy. **Hence (d) is not correct**
  - IIP data is compiled and **published by CSO every month**. CSO or Central Statistical Organisation operates under the **Ministry of Statistics and Programme Implementation (MoSPI)**.
  - The **base year** was changed to **2011-12** from 2004-05 in the year 2017.
- The Index of Eight Core Industries (ICI) is released by the **Ministry of Commerce and Industry, Government of India**, through its **Office of the Economic Advisor**. This index is published monthly. **Hence (a) and (c) are not correct**

2. (a)

The Vadnavan greenfield port is under construction near **Dahanu in Maharashtra**.

- It is scheduled to be finished by **2034**, it is projected to be **among the top 10 ports in the world**.
- It will **double India's container trade** from the current levels upon completion.
- Development:** Developed jointly by the Jawaharlal Nehru Port Authority (JNPA) and the Maharashtra Maritime Board (MMB).

3. (b)

Zaid crops are typically grown in the drier period between the Rabi and Kharif seasons. This means they are often sown after the winter rains (which benefit Rabi crops) and harvested before the heavy monsoon rains (which benefit Kharif crops). Zaid crops are often adapted to warmer temperatures and can tolerate drier conditions. They may rely on irrigation or residual soil moisture. Zaid crops often have a shorter duration from sowing to harvest compared to the main season crops.

4. (b)

**Context:** The Indian government abolished the windfall tax on crude oil, aviation turbine fuel (ATF), petrol, and diesel exports.

**What is a windfall tax?**

- Windfall taxes are designed to tax the profits a company derives from an external, sometimes unprecedented event— for instance, the energy price-rise as a result of the Russia-Ukraine conflict.
- These are profits that cannot be attributed to something the firm actively did, like an investment strategy or an expansion of business.

5. (c)

**In News:** Recently, the **Union Ministry of Ports, Shipping and Waterways** introduced the **Coastal Shipping Bill, 2024** seeking to promote coastal trade and encourage the participation of Indian-flagged vessels owned and operated by Indian citizens for national security and commercial needs.

**Statement 1 is correct**

- It proposes the creation of a National Database for coastal shipping to ensure transparency and facilitate information sharing.

**Statement 2 is correct**

**Inland Vessels Participation:** The bill permits inland vessels to engage in coastal trading under certain conditions, thereby expanding the scope of vessels that can participate in coastal trade.

6. (a)

The Lok Sabha passed the Banking Laws (Amendment) Bill, 2024, following the conclusion of a week-long logjam.

**Only Statement 1 is correct**

- **The Banking Laws (Amendment) Bill, 2024**
- The Bill, introduced by Finance Minister Nirmala Sitharaman, was approved by a voice vote.
- **Key Provisions:**
  - **Nominees:** Allows bank account holders to have up to four nominees.
  - **Substantial Interest:** Redefines “substantial interest” for directorships, increasing the limit to ₹2 crore from ₹5 lakh.
  - **Directors’ Tenure:** Increases tenure of directors (excluding chairman and whole-time director) in cooperative banks from eight years to 10 years.
  - **Directorship:** Allows a director of a Central Cooperative Bank to serve on the board of a State Cooperative Bank.

7. (a)

**Statement 1 is correct:** Gharchola is indeed a traditional wedding sari from Gujarat and has been awarded the GI tag.

**Statement 2 is not correct:** The GI tag is valid for 10 years (not 15 years) and can be renewed.

**Statement 3 is correct:** Gharchola is traditionally worn during Hindu and Jain weddings and is crafted in auspicious colors such as red, maroon, green, and yellow.

**Statement 4 is correct:** The GI tag provides legal protection to products, preventing unauthorized use and boosting exports.

8. (b)

**Context:** The Food Safety and Standards Authority of India (FSSAI) has categorised the packaged drinking/mineral water as ‘high-risk food’.

**High-Risk Food Categories**

- They are ready-to-eat items that can support **pathogen growth**, requiring careful handling and separation from raw foods.



**FSSAI**

- It is an **autonomous body** under the **Ministry of Health and Family Welfare**.
- **Established in 2008** under **Food Safety and Standards Act, 2006** ensuring proper regulation, storage and distribution of food for consumption.

9. (c)

**Both the statements are correct:** Bitcoin was introduced in **2009** by an anonymous creator known as **Satoshi Nakamoto**.

- It's the **world's first decentralized cryptocurrency**, using **blockchain technology** to secure and verify transactions.
- The Bitcoin network is **public and open-source**, meaning anyone can participate.

10. (d)

**Contributions of Dr. Bhim Rao Ambedkar**

- **Champion of Dalit Rights:** Ambedkar fought against the caste system and untouchability, and his efforts led to the **abolition of untouchability** in the Indian Constitution.
  - He led movements like the **Mahad Satyagraha (1927)**, fighting for Dalits' right to access public water tanks and temples.
  - He also organized the **Kalaram Temple Entry Satyagraha in 1930**, pushing for Dalits to enter temples from which they were previously barred.

11. (a)

**In News:** Recently, the **Annual Survey of Industries (ASI) for 2022-23** was released showcasing a **positive correlation** between Production Linked Incentive (PLI) scheme incentives and sectoral performance.

**Statement 1 is correct**

- **Annual Survey of Industries (ASI)** has been **conducted since 1959** under the **Collection of Statistics Act, 1953**.
  - Presently, the survey is being conducted under the **Collection of Statistics Act, 2008** as amended in 2017 and Rules framed there under in 2011.
- It covers the **factories registered under the Factories Act, 1948** and establishments under Bidi and Cigar Workers (Conditions of Employment) Act, 1966.

**Statement 2 is not correct**

- It also covers all electricity undertakings engaged in generation, transmission and distribution of electricity, not registered with the Central Electricity Authority (CEA).

12. (b)

**Context:** Coconut plantations have led to deforestation on over 80 per cent of Pacific atolls, such as Tokelau, the Solomon Islands, the Cook Islands, Tuvalu, and Fiji.

**Key Requirements for Coconut Plantation**

- **Location:** It thrives in a tropical climate, between 20°N and 20°S latitude.
- **Climate:** It requires **high humidity (above 60%)** and average annual temperatures of **27°C**.
- **Annual rainfall** should range between **1,500 to 2,500 mm**.
- **Soil:** Prefers sandy loam or well-drained soils with **high organic matter**.
  - However it can **tolerate saline soils**, making it suitable for coastal areas and islands.

## 13. (d)

**Context**

- Foreign Direct Investment (FDI) inflows into India have surpassed the \$1 trillion mark in the April 2000-September 2024 period.

**What is Foreign Direct Investment (FDI)?**

- It refers to **investments made by foreign entities** (individuals or companies) in the business interests of another country, typically in the form of **ownership or control of enterprises**.
- At present, **FDI is prohibited** in lottery, gambling and betting, **chit funds**, Nidhi company, and manufacturing of cigars, cheroots, cigarillos and cigarettes using tobacco.

## 14. (b)

**Context:** The Appointments Committee of the Cabinet, headed by Prime Minister Narendra Modi has approved IAS officer Sanjay Malhotra's appointment as the next governor of the Reserve Bank of India.

**Reserve Bank of India (RBI)**

- It is the **central bank** of India whose primary function is to manage and govern the financial system of the country. It was set up on the basis of the **Hilton Young Commission** recommendations.
- The Reserve Bank of India Act, 1934 (II of 1934) provides the **statutory basis** of the functioning of the Bank, which commenced operations on April 1, 1935.

## 15. (c)

**Both Statement 1 and 2 correct:** Cess and Surcharge are **additional taxes that are levied over and above the basic tax liability**.

- Cess:** It is calculated as a percentage of the base tax (e.g., income tax or GST) and is used for designated causes, like education, health, or sanitation.
  - Cess is typically non-refundable and must be paid on top of the regular tax liability.
  - Examples include Education Cess and Health Cess.
- Surcharge:**
  - It is imposed on higher-income individuals, companies, or entities to increase government revenue.
  - Unlike cess, the surcharge does not have a specific earmarked purpose and goes into the general revenue fund.**
  - The rate of surcharge increases as the taxable income rises, and it is applied on top of the base tax amount.

## 16. (c)

Recently, an investigation, which accessed data through the Right to Information (RTI) Act, has uncovered that the top 100 defaulters in India accounted for a staggering 43% of the total Non-Performing Assets (NPAs) of scheduled commercial banks, amounting to over Rs 4 lakh crore out of the total gross NPAs of Rs 9.33 lakh crore.

**Statement 1 is correct**

- According to the RBI's master circular on **Prudential norms on Income Recognition, Asset Classification, and Provisioning**, an asset is classified as an NPA if the **Interest and/or installments of principal** remain overdue for more than 90 days.

**Statement 2 is correct**

- The **installment of principal or interest** remains overdue for two crop seasons for short-duration crops or one crop season for long-duration crops.



17. (b)

**Context:** To realise the tremendous potential of its rich network of inland waterways, India has unveiled the **Jalvahak scheme**, a major cargo promotion policy.

**About: Jalvahak scheme**

- It offers upto **35%** reimbursement of operating expenses for cargo transported via **National Waterways 1 (Ganga), 2 (Brahmaputra), and 16 (Barak)** through the Indo-Bangladesh Protocol (IBP) route.
- Initially valid for **three years**, the scheme offers direct incentives for goods transported over **300 km** via inland waterways and is a **joint initiative** of the Inland Waterways Authority of India (Iwai) and Inland & Coastal Shipping Limited (ICSL).

18. (a)

Medical tourism refers to the practice of traveling to another country or region for medical treatment, procedures, or health-related services.

**Factors Responsible for the Growth of Medical Tourism in India**

- **Cost-Effective Treatment:** India offers medical procedures at a fraction of the cost compared to countries like the US or Europe.
- **High-Quality Healthcare:** India has a well-established healthcare infrastructure with internationally accredited hospitals and skilled medical professionals.
- **Availability of Advanced Medical Technology:** Indian hospitals are equipped with state-of-the-art medical technology and cutting-edge treatments, particularly in fields like cardiology, oncology, and orthopedics.
- **Shorter Wait Times:** Medical tourists can access timely treatment, often **avoiding long wait times** common in some Western healthcare systems.

19. (a)

**Statement 1 is correct:** **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)**.
- The major objectives are to **support the farmers** from distress sales and to procure food grains for public distribution.

**Statement 2 is not correct: 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.

20. (b)

**In News:** India is heavily reliant on crude oil imports to meet its energy needs. SPRs act as a buffer against supply disruptions, price volatility, and geopolitical uncertainties. **Statement 1 is not correct:** India's Strategic Petroleum Reserve (SPR) Programme was launched in 2004 to enhance energy security by maintaining emergency crude oil reserves. The SPR program is managed by the Indian Strategic Petroleum Reserves Limited (ISPRL), not ONGC.

**Statement 2 is correct:** 5.33 million metric tonnes (MMT) of crude oil storage across three locations:

- Visakhapatnam, Andhra Pradesh
- Mangaluru, Karnataka
- Padur, Karnataka

**Statement 3 is correct:** Phase II ( 6.5 MMT storage facilities) includes new facilities at Chandikhol in Odisha and an expansion of the existing facility at Padur in Karnataka.

## 21. (a)

**Statement 1 is correct:** The REER **compares a nation's currency value** against the weighted average of the currencies of its major trading partners.

- It is an **indicator of the international competitiveness** of a nation in comparison with its trade partners.
- **An increasing REER indicates** that a country is losing its competitive edge.

**Statement 2 is not correct: Appreciation: A higher REER** indicates that a country's currency has appreciated in real terms, making its **exports more expensive and imports cheaper**. This can **reduce export competitiveness**.

- **Depreciation:** A lower REER suggests that the currency has depreciated in real terms, improving export competitiveness and making imports more expensive.

## 22. (b)

### Context

- The **Ministry of Statistics and Programme Implementation (MoSPI)** has released the Annual Survey of Unincorporated Sector Enterprises (ASUSE) for 2023-24 for the reference period October, 2023 – September, 2024.

### Coverage of ASUSE

- **Geographical coverage:** ASUSE covers the rural and urban areas of the whole of India (except the villages in Andaman and Nicobar Islands).
- **Sector-wise,** this survey captures unincorporated non-agricultural establishments belonging to three sectors viz., **Manufacturing, Trade and Other Services (excluding construction)**.
- **Economic characteristics:** Number of workers, GVA, emoluments paid, fixed asset owned, outstanding loan etc.

### Key highlights from the ASUSE 2023-24

- **Growth in Establishments:** The total number of establishments in the sector increased substantially from 6.50 crore in 2022-23 to **7.34 crore in 2023-24**, representing a **12.84%** growth.
- **Strong Labour Market Performance:** The percentage of female-owned proprietary establishments has increased from 22.9% in 2022-23 to **26.2%** in 2023-24.
  - **The average emolument per hired worker** also increased by **13%** in 2023-24 compared to the previous year, signaling improvements in wage levels.

## 23. (a)

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

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

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

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

24. (b)

**Context**

- India's current account deficit (CAD) marginally moderated to **\$11.2 billion**, equivalent to **1.2%** of gross domestic product (GDP), during the **July-September 2024 quarter**.

**Current Account Deficit (CAD)**

- The current account deficit occurs when a **country's imports of goods and services exceed its exports**.
- It is a crucial indicator of a **nation's economic health** and reflects the balance of trade, net income from abroad, and net current transfers.

25. (c)

**In News:** India's national fish production has increased by 83% since 2013-14, reaching a record 175 lakh tons in 2022-23.

**Statements 1,2 and 3 are correct :** India's economic growth remains strong, with a low and stable inflation rate, despite global political uncertainties. The Indian Fisheries sector, termed the 'sunrise sector' of the economy, has shown impressive growth

- **India is currently the 2nd largest fish producing country with around 8% share in global fish production and a record high fish production** of 174.45 lakh tonnes (2023-24). India also stands at 2nd in aquaculture production and is one of the top shrimp producing and seafood exporting nations in the world
- The sector provides sustainable livelihoods to over 30 million people mostly within the marginalized and vulnerable communities.
- **World Fisheries Day, observed every November 21st**, is a global event that underscores the critical importance of sustainable fisheries and the need to protect aquatic ecosystems and the livelihoods of fishing communities. The Day originated in 1997 when the "World Forum of Fish Harvesters & Fish Workers" convened in New Delhi.

■■■■

# INDIAN POLITY & CONSTITUTION

tion

1. Consider the following committees:

- |                   |                  |
|-------------------|------------------|
| 1. Raja Chelliah  | 2. Padmanabhaiah |
| 3. (a)bid Hussain | 4. Malimath      |

How many of the above is / are primarily linked to police reform in India?

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

2. With reference to the Persons with disabilities in India, consider the following statements:

1. The Rights of Persons with Disabilities Act of 2016 mandated the establishment of State Commissioners for Disabilities having quasi-judicial functions.
2. The National Trust Act of 1999 aims to provide legal guardianship for persons with autism, cerebral palsy, mental retardation, and multiple disabilities.

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. The sixth schedule of the constitution of India is related to which of the following?

- (a) Division of Powers Between the Union and State Governments.
- (b) Official Languages of India.
- (c) List of laws that are protected from judicial review.
- (d) Administration of tribal areas.

4. (a)rticle 246 of the Constitution of India is related to which of the following?

- |   |                        |
|---|------------------------|
| (a) The Union and State lists of Subjects | (b) Power of President |
| (c) Governor's Role in Bills              | (d) Finance Commission |

5. Which of the following statements correctly compares the clemency powers of the President of the United States and the President of India?

1. The US President's clemency powers are absolute and not subject to judicial review.
2. The Indian President exercises clemency powers on the advice of the Council of Ministers.
3. The US President's clemency powers extend to both federal and state crimes.
4. The Indian President's clemency powers extend to cases of death penalties.

Select the correct answer using the code below:

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

6. (c)onsider the following statements regarding the Privileges Committee:

1. The Privileges Committee investigates cases of breach of privilege.
2. The committee exists only in the Lok Sabha.

3. The report of the Privileges Committee is binding on the House.

Which of the above statements is/are correct?

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

7. Consider the following statements about a No-trust motion/ No-confidence motion in the context of the Indian Parliament:

1. (a) No-Trust Motion can only be moved against the Presiding officer of the Rajya Sabha.
2. (a)rticle 67(b) governs the removal of the Vice-President and Chairperson of the Rajya Sabha through this motion.
3. (a)pproval of the No-Trust Motion requires a majority vote in both Houses of Parliament.

Which of the statements given above is/are correct?

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

8. With reference to the Removal of Vice President of India, consider the following statements:

1. The resolution cannot be moved unless a notice of at least 14 days has been provided.
2. (a) resolution can be introduced in any of the houses of Parliament.

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 the recently introduced 'Railways (Amendment) Bill of 2024', consider the following statements:

1. It proposes to merge the Indian Railway Board Act of 1905 into the Railways Act of 1989.
2. It aims to provide statutory backing to the Railway Board.

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. Consider the following statements regarding Lok Adalats:

1. Lok Adalats were provided statutory status under the Legal Services Authorities Act, 1987.
2. (d)ecisions made by Lok Adalats are final and binding but can be appealed in higher courts.
3. Lok Adalats have the same powers as a civil court under the Code of Civil Procedure, 1908.
4. The first Lok Adalat was held in Gujarat in 1982.

Which of the statements given above are correct?

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

11. With reference to the National Human Rights Commission (NHRC), which of the following statements is/are correct?

1. It is a statutory body, established under the Protection of Human Rights Act (PHRA), 1993.
2. It is vested with the power to regulate its own procedure.

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 among the following committees is related to the pardoning power of the President of India?
- (a) Anoop Baranwal v. Union of India
  - (b) Navtej Singh Johar v. Union of India
  - (c) Maru Ram v. Union of India
  - (d) Vivek Narayan Sharma v. Union of India
13. What is the role of the Speaker or Chairman when a motion for removal of a judge is submitted?
- (a) They must accept the motion immediately.
  - (b) They have the discretion to admit or reject the motion.
  - (c) They must consult the President before admitting the motion.
  - (d) They must forward the motion directly to the judiciary for review.
14. With reference to the Competition Commission of India (CCI), which of the following statements is/are correct?
1. The Commission is composed of a Chairperson and between two to six additional members.
  2. It is a non-statutory body under the Ministry of Corporate Affairs (MCA).
- 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. Article 44 of the Indian Constitution is related to which of the following?
- (a) Fundamental Rights
  - (b) Uniform Civil Code (UCC)
  - (c) Rights of the Tribals
  - (d) None of the above
16. Consider the following statements with reference to begging in India:
1. Currently, there is no specific central legislation in India to address beggary.
  2. The Bombay Prevention of Begging Act, 1959 criminalizes begging and is one of the most widely adopted laws by states.
- 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 statements best describes the Henderson Doctrine?
- (a) It allows for the relitigation of issues that were not addressed in the original proceedings.
  - (b) It asserts that once a matter has been litigated, it should not be revisited in subsequent proceedings.
  - (c) It is a principle aimed at delaying the final resolution of disputes.
  - (d) It permits the fragmentation of disputes into multiple proceedings.
18. With reference to the 'National Investigation Agency (NIA)', consider the following statements:
1. It is the primary counter-terrorist task force of India functioning as the Central Counter Terrorism Law Enforcement Agency.
  2. It can investigate crimes committed outside India if they involve Indian citizens or affect Indian interests.
- Which of the statements given above is/are correct?
- (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2



- 19.** The foundation of the National Crime Records Bureau (NCRB) was based on the recommendations of which of the following committees?
- Tandon Committee and National Police Commission
  - Malimath Committee and Second ARC
  - Verma Committee and Lokur Committee
  - Sarkaria Committee and Punchhi Commission
- 20.** Foreign nationals require a Protected Area Permit (PAP) to visit which of the following states entirely?
- Himachal Pradesh
  - Arunachal Pradesh
  - Sikkim
  - Jammu and Kashmir
- 21.** Which of the following statements about the Joint Committee of Parliament (JPC) is correct?
- A JPC is a permanent committee of Parliament.
  - Members of a JPC are drawn only from the Lok Sabha.
  - A JPC is constituted for specific purposes and dissolved after completing its task.
  - Recommendations of the JPC are binding on the government.
- 22.** Which of the following best distinguishes "Adjournment Sine Die" from "Prorogation"?
- Adjournment sine die is decided by the President, while prorogation is decided by the Speaker.
  - Adjournment sine die refers to indefinite suspension, while prorogation marks the formal end of a Parliamentary session.
  - Adjournment sine die dissolves the House, while prorogation merely ends a session.
  - Adjournment sine die and prorogation are identical in meaning.
- 23.** With reference to the National Human Rights Commission (NHRC), which of the following statements is/are correct?
- It is a statutory body that aims to promote and protect human rights in accordance with the Paris Principles.
  - The Chairperson and Members of the NHRC are appointed by the Prime Minister.
- Select the correct answer using the code given below:
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
- 24.** With reference to the judicial accountability in India, consider the following statements:
- (a) judge can only be removed for 'proved misbehaviour or incapacity'.
  - The removal is determined by an inquiry committee which includes the Prime Minister of India.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
- 25.** With reference to the Good Governance Index, consider the following statements:
- It is released by NITI Aayog.
  - It is released for a group of 10 selected states and Union Territories annually.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2

## EXPLANATIONS

## 1. (b)

**In News:** Recently, the Prime Minister of India attended the '59th All India Conference of Director Generals/ Inspector Generals of Police', held in Bhubaneswar, **Odisha** to discuss and deliberate on national security issues and policing strategies.

- Key committees focusing on police reform in India are:
  - **Padmanabhaiah Committee (2000)** focused on **restructuring** the police force. It recommended *modernizing police infrastructure, improving training programs, and enhancing the recruitment process*.
  - **Malimath Committee (2002-03):** This committee on **criminal justice system** reforms suggested measures to improve the efficiency of the police and the judiciary.
  - **Ribeiro Committee (1998):** Formed on the **directions of the Supreme Court**, it **reviewed the implementation of previous recommendations** and suggested ways to expedite police reforms.
  - **Mooshahary Committee:** It reviewed the recommendations of the National Police Commission and other committees, focusing on their implementation and suggesting further improvements.
- However, the **Raja Chelliah Committee** was focused on **tax reforms**; and the **Abid Hussain Committee** was focused on **small-scale industries**.

## 2. (c)

**Statement 1 is correct**

- **Rights of Persons with Disabilities Act, 2016 (RPWD Act):** It replaced the *Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995*, aligning national laws with the UN Convention on the Rights of Persons with Disabilities.
- It mandates the establishment of **State Commissioners for Disabilities** that are tasked with ensuring the effective implementation of the law through **review, monitoring, and quasi-judicial functions**.
  - According to *Section 82 of the RPWD Act*, State Commissioners have powers **equivalent to civil courts**, enabling them to address violations of disability rights effectively.

**Statement 2 is correct**

- **National Trust Act, 1999:** It aims to provide legal guardianship and create an enabling environment for persons with autism, cerebral palsy, mental retardation, and multiple disabilities.

## 3. (d)

The Sixth Schedule was adopted under **Article 244** of the Constitution with provisions for formation of autonomous administrative divisions within a state.

- The Sixth Schedule is applicable to what are officially called as 'tribal areas' in the States of **Assam, Meghalaya, Mizoram and Tripura**. There are 10 such 'tribal areas' at present in these four States.
- These divisions, in the form of Autonomous District Councils (ADCs), were granted certain **legislative, judicial and administrative autonomy** within the state.
- **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**.

4. (a)

**Article 246 of the Constitution of India** deals with the distribution of legislative powers between the Parliament and the State Legislatures.

- It outlines the areas in which both can legislate, as well as the authority of the Union and States over certain subjects.

5. (b)

#### **U.S. President's Pardon Procedure**

- The U.S. President has the power to grant pardons for **federal criminal offenses** under the U.S. Constitution, **except in cases of impeachment**.
  - Does not erase the criminal record but alleviates penalties and restores certain rights.
- **Discretionary Nature:** The president has unilateral clemency authority, independent of Congressional approval. The US President's clemency powers are broad, they are not entirely immune from judicial review. Courts can intervene in cases where constitutional violations, such as discrimination or malafide intent, are evident.

#### **Pardoning Power in Indian system**

- **Article 72 and Article 161** of the Indian Constitution grant the **President** and **Governors** the power to pardon or alter sentences, based on the advice of the council of ministers.
  - A pardon in India absolves the offender from conviction, punishment, and disqualifications.
  - **Scope of Pardon Power:** Article 72 (President's Power): The President can grant pardons, reprieves, respites, or remissions for federal offenses, including death sentences and cases involving Union laws.
  - Article 161 (Governor's Power): Governors can grant similar powers for state offenses and matters under the State's executive authority.

#### **Comparison of US and Indian Pardon Powers**

Feature	India	United States
<b>Source of Power</b>	Article 72 of the Constitution	Article II, Section 2 of the Constitution
<b>Scope</b>	Both federal (Union) and state crimes	Federal crimes only
<b>Death Penalty</b>	President can pardon death sentences, including those imposed by states	President can only pardon federal death sentences; Governors hold this power for state crimes
<b>Role of Executive Branch</b>	President acts on the advice of the Council of Ministers	President has unilateral authority
<b>Judicial Review</b>	Limited judicial review; courts can examine the process but generally not the decision itself	Courts can review pardons in cases of suspected corruption or abuse of power
<b>Limitations</b>	Cannot pardon someone impeached by Parliament	Cannot pardon someone impeached and convicted by Congress
<b>Other Considerations</b>	Includes powers of reprieve, remission, commutation, and respite	Similar forms of clemency exist (reprieve, commutation, remission)

6. (a)

**In News:** Recently, a Privilege Motion was moved in the Parliament by the opposition members.

**Statement 1 is correct:** The Privileges Committee is indeed tasked with investigating cases of breach of privilege of the House or its members. This is its primary function.

**Statement 2 is not correct:** The Privileges Committee exists in both Houses of Parliament – the Lok Sabha and the Rajya Sabha. Each House has its own separate committee.

**Statement 3 is not correct:** While the Privileges Committee's report is a serious matter and given significant weight, it is ultimately not binding on the House. The House can accept, reject, or modify the recommendations of the committee.

7. (c)

**Statement 1 is not correct:** A No-Confidence Motion is moved against the entire Council of Ministers in the Lok Sabha (the lower house of Parliament). It signifies that the House has lost confidence in the government.

**Statement 2 is correct:** Article 67(b) of the Indian Constitution deals with the removal of the Vice-President, who is also the ex-officio Chairperson of the Rajya Sabha. This removal is done through a resolution passed by a majority in the Rajya Sabha and agreed to by the Lok Sabha. While it's not technically a "No-Confidence Motion," it functions similarly in that it expresses a lack of confidence in the Vice-President.

**Statement 3 is not correct:** A No-Confidence Motion only needs to be passed by a simple majority in the Lok Sabha. The Rajya Sabha is not involved in this process.

8. (a)

**Statement 1 is correct:** The procedure to remove the Vice-President is outlined in **Articles 67 (b), 92, and 100 of the Constitution.**

- Such a resolution cannot be moved **unless a notice of at least 14 days** has been provided, indicating the intention to move the resolution.

**Statement 2 is not correct:**

- **Process:** It begins with a resolution **introduced in the Rajya Sabha**, which requires a **majority of 50%** of the members present plus one on the day of voting.
  - If approved, the resolution **moves to the Lok Sabha**, where it must be passed by a **majority** to take effect.
- Once both Houses pass the resolution, the Vice President is removed from office.

9. (c)

**In News:** The recent Railways (Amendment) Bill, 2024, introduced in the Lok Sabha, has sparked discussions about whether it truly addresses the core issues or merely scratches the surface.

**Statements 1 and 2 are correct.**

- **The Railways (Amendment) Bill, 2024** seeks to **amend the Railways Act, 1989**, to provide **statutory backing to the Railway Board**, which has been functioning without such sanction since its inception.
- It proposes the establishment of an independent regulator to oversee various aspects of Indian Railways, including tariffs, safety, and private sector participation.
- The Bill aims to merge the **Indian Railway Board Act, 1905, into the Railways Act, 1989**. This consolidation is intended to simplify the legal framework governing Indian Railways.

10. (b)

**Statement 1 is correct:** Lok Adalats were given statutory status under the Legal Services Authorities Act, 1987.

**Statement 2 is not correct:** Decisions made by Lok Adalats are final and binding, and there is no provision for appeal.

**Statement 3 is correct:** Lok Adalats have the same powers as a civil court under the CPC, 1908.

**Statement 4 is correct:** The first Lok Adalat was held in Junagarh, Gujarat, in 1982.

11. (c)

**Context:** The President of India addressed the Human Rights Day celebration, organised by the National Human Rights Commission, in New Delhi.

### National Human Rights Commission (NHRC) in India

- It is a statutory body, established under the Protection of Human Rights Act (PHRA), **1993**.
- It is responsible for the protection and promotion of human rights, defined by the act as **Rights Relating to Life, liberty, equality and dignity of the individual** guaranteed by the constitution or embodied in the international covenants and enforceable by courts in India.
- 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.

### 12. (c)

**Context:** President Joe Biden became the first US president to pardon his son, Hunter Biden, who pleaded guilty to federal tax charges. This event has prompted debates on clemency powers and highlighted differences in pardon authorities between the US and India.

#### The power to pardon in India

- The President of India under Article 72 of the Constitution is empowered “to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence —
  - in all cases where the punishment or sentence is by a Court Martial;
  - in all cases where the punishment or sentence is for an offence against any law relating to a matter to which the executive power of the Union extends;
  - in all cases where the sentence is a sentence of death.”
- In **Maru Ram v. Union of India (1980)**, a five-judge Constitution Bench held that the President cannot grant a pardon on her own and must act upon the advice of the Centre.
  - It also held that the court would only hear a challenge to the exercise of power under Article 72 in the ‘rare’ situation where the decision is “wholly irrelevant, irrational, discriminatory or mala fide.”

### 13. (b)

Judges Inquiry Act, 1968 mentioned the details of the procedure for removing judges, granting the Speaker of the Lok Sabha or the Chairman of the Rajya Sabha the discretion to admit or reject a motion for removal.

The Speaker/Chairman may consult with individuals and examine relevant material before making a decision on the motion. This ensures that the motion has some merit before proceeding to the next stage. While they may consult the President, it’s not mandatory.

### 14. (a)

**Context:** The Competition Commission of India (CCI) has issued a cease-and-desist order against the Table Tennis Federation of India (TTFI) and its affiliate bodies, for violating provisions of Sections 3(4) and 4 of the Competition Act, 2002.

#### Competition Commission of India (CCI)

- It is a **statutory body** established in March 2009 by the Government of India under the **Competition Act, 2002**.
- The composition of the Commission consists of a **Chairperson** and not less than two and not more than six other members.
- It operates under the **Ministry of Corporate Affairs (MCA)** with the following objectives:
  - Eliminate practices having adverse effect on competition,
  - Promote and sustain competition,

- Protect the interests of consumers
- Ensure freedom of trade in the markets of India
- Establish a robust competitive environment.

15. (b)

#### Uniform Civil Code

- **Definition:** It is conceptualised as a set of laws that govern personal matters, including marriage, divorce, adoption, inheritance, and succession, for all citizens regardless of their religion.
- **Aim:** To replace the existing diverse personal laws that vary based on religious affiliations.
- **Article 44:** The code comes under Article 44 of the Constitution, which lays down that the **state shall endeavour to secure a Uniform Civil Code for the citizens throughout the territory of India.**

16. (c)

**Context:** In a bid to make Indore a **beggar-free city**, the district administration has announced that starting January 1, 2025, **FIRs** will be registered against individuals giving money to beggars.

#### About

- Indore is among 10 cities selected for a pilot project by the Union Ministry of Social Justice and Empowerment to make them beggar-free.
- Currently, there is **no specific central legislation** in India to address beggary.
- However, as many as 19 States and 3 Union Territories have either enacted their own Anti-Begging Legislation or **adopted** the legislation enacted by other States, such as '**The Bombay Prevention of Begging Act, 1959,**' which **criminalizes** beggary.

17. (b)

#### Context

- In a recent case, the Supreme Court explained Henderson doctrine, a natural corollary of the Indian doctrine of **constructive Res-judicata codified in Explanation IV of Section 11 of the Code of Civil Procedure (CPC).**

#### About

- The Henderson Doctrine, originating from the **1843** English case **Henderson v. Henderson**, asserts that once a matter has been litigated, it should not be revisited in subsequent proceedings.
- **It prevents the relitigation of issues** that were or could have been addressed in the original proceedings.

18. (c)

**In News:** Recently, the Supreme Court of India has expanded the investigative powers of the **National Investigation Agency (NIA)**, ruling that it can **now probe non-scheduled offences if they are connected to scheduled offences** under its purview.

#### Statement 1 is correct

- **National Investigation Agency (NIA)** is the **primary counter-terrorist task force of India**, was established in 2009, after the enactment of **National Investigation Agency Act, 2008.**
- It is functioning as the **Central Counter Terrorism Law Enforcement Agency in India** under the **Union Ministry of Home Affairs.**

#### Statement 2 is correct

- The NIA has the **authority to investigate offenses across India.**

- The **NIA (Amendment) Act, 2019** allowed the NIA to investigate crimes committed outside India if they involve Indian citizens or affect Indian interests.

19. (a)

**National Crime Records Bureau (NCRB)** was established in 1986 under the Ministry of Home Affairs, Government of India. It functions as a central repository of crime data and assists in investigating and preventing crime. The **Tandon Committee, formed** in the 1970s, specifically recommended the creation of a national crime records bureau to improve crime data collection and analysis. National Police Commission (1977-1981) also emphasized the need for a centralized crime records agency to facilitate better crime investigation and prevention strategies.

20. (b)

**Protected Area Permit (PAP):** Foreign nationals need a PAP to visit certain restricted areas in India. These areas are often close to international borders or have sensitive security concerns. The entire state of Arunachal Pradesh falls under the Protected Area regime. This means all foreign nationals need a PAP to enter and travel within the state. Himachal Pradesh, Jammu and Kashmir, and Sikkim, these states have some areas that require a PAP, not the entire state falls under the Protected Area regime.

21. (c)

#### **Joint committee of Parliament(JPC)**

- A JPC is formed by Parliament for specific purposes, such as detailed scrutiny of a subject or Bill.
- It includes members from both the Lok Sabha and Rajya Sabha, representing ruling and opposition parties.
- It is dissolved once its task is completed.

#### **How is a JPC Set Up?**

- A motion must be passed by one House of Parliament and agreed to by the other.
  - Members of the JPC are chosen by Parliament, and its size may vary.

#### **Powers and Recommendations of JPC**

- The JPC's mandate depends on the motion creating it (e.g., to investigate irregularities or scrutinize a Bill).
- It can scrutinize documents, summon people for questioning, and make recommendations.
  - Findings are usually confidential, except when in the public interest.
- Recommendations made by a JPC are not binding on the government, but have persuasive value.
- The government must report back on actions taken based on the JPC's recommendations.

22. (b)

Adjournment sine die refers to the termination of a Parliamentary sitting without specifying a date for the next meeting. The House is adjourned indefinitely without a scheduled reassembly date. The power to adjourn sine die lies with the Presiding Officer of the House (Speaker for Lok Sabha or Chairman for Rajya Sabha). The Presiding Officer can reconvene the House at any time after an adjournment Sine Die, based on the need or urgency.

23. (a)

**Context:** Recently, Leaders of Opposition expressed their disagreement, saying that the selection process for the NHRC chief was “fundamentally flawed” and a “pre-determined” exercise that ignored mutual consultation and consensus.

**National Human Rights Commission (NHRC)**

- It is a **statutory body** established under the **Protection of Human Rights Act, 1993**, aims to promote and protect human rights in line with the **Paris Principles**.
- The **Commission consists** of a Chairperson, five full-time Members and seven deemed Members.
- The Chairperson and Members of the NHRC are **appointed by the President of India** based on recommendations from a **Committee that includes** the Prime Minister (Chairperson), Speaker of Lok Sabha, Home Minister, leaders of the opposition in both Lok Sabha and Rajya Sabha, and Deputy Chairman of Rajya Sabha.

**24. (a)**

Holding judges accountable in India presents a unique set of challenges, rooted in the constitutional framework and the mechanisms in place for judicial oversight.

- The recent controversy surrounding Justice Shekhar Kumar Yadav of the Allahabad High Court has once again highlighted these difficulties.

**Statement 1 is correct BUT Statement 2 is not correct** : The existing mechanism for judicial accountability in India is governed by the **Judges (Inquiry) Act, 1968**. It stipulates that a judge can only be removed for 'proved misbehaviour or incapacity' which must be determined by a **three-member committee**.

- **The inquiry committee comprises a Supreme Court judge, a Chief Justice of a High Court, and an eminent jurist**
- The above committee **functions like a trial court** but is only convened after a successful **impeachment motion** is initiated in **either the Lok Sabha or the Rajya Sabha**.
- The **motion must be** approved by the **presiding officer of the House**— the Speaker in the case of the Lok Sabha, or the Vice-President/Chairman in the case of the Rajya Sabha.

**25. (d)**

**Both the statements are not correct:** The **Department of Administration Reforms and Public Grievances (DARPG)**, Government of India launched the Good Governance Index (GGI) Framework and published the **ranking for the States and Union Territories (UTs) in 2019** on the occasion of Good Governance Day, i.e., 25 December 2019.

- The ranking is done as a biannual exercise.
- The index covers over **50 indicators** across sectors, including agriculture, economic governance, public health, and citizen-centric governance.
- **Tamil Nadu and Gujarat** got first place among big states in the 2019 and 2021 rankings, respectively.

■■■■



# GEOGRAPHY

1. With reference to the Cyclones, consider the following statements:
1. (c)yclones typically form over warm ocean waters.
  2. The centre of a cyclone is called eye with very high air pressure.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
2. Which of the following countries shares borders with Peru?
1. Ecuador
  2. Venezuela
  3. (c)olombia
  4. (b)olivia
  5. Guyana
- Select the correct answer using the code given below:
- (a) 1, 2, 3 and 5 only (b) 1, 3 and 4 only  
(c) 2, 4 and 5 only (d) 1, 2, 3, 4 and 5
3. Which of the following geographical factors influences the distribution of lake effect snow?
- (a) Distance from the equator
  - (b) Latitude of the region
  - (c) Wind direction and surrounding terrain
  - (d) Altitude of the region
4. Which of the following is a major natural cause of drought?
1. El Niño
  2. (d)eforestation
  3. Overgrazing
  4. (c)limate Change
- Select the correct answer using the code below:
- (a) 1 and 4 only (b) 1, 2, and 3 only  
(c) 1, 3, and 4 only (d) All of the above
5. (c)onsider the following countries:
1. Iran
  2. Turkey
  3. Iraq
  4. Jordan
- Which of the following countries shares borders with Syria?
- (a) 1 and 2 only (b) 2 and 3 only  
(c) 2, 3 and 4 only (d) 1, 2, 3 and 4
6. (a)leppo, Hama, and Damascus, which were recently in the news, are cities in which of the following countries?
- (a) Iraq (b) Syria  
(c) Lebanon (d) Jordan

7. Syria shares borders with which of the following countries?

- |           |                 |
|-----------|-----------------|
| 1. Jordan | 2. Egypt        |
| 3. Iraq   | 4. Saudi Arabia |

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 |

8. The historical region 'Levant' includes which of the following modern day countries?

- |            |          |
|------------|----------|
| 1. Lebanon | 2. Syria |
| 3. Israel  |          |

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   |

9. Consider the following countries:

- |             |                |
|-------------|----------------|
| 1. Thailand | 2. Pakistan    |
| 3. Iran     | 4. Afghanistan |
| 5. Myanmar  |                |

How many of the above-mentioned countries make the region of Golden Triangle (also known as Death Triangle)?

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

10. Saydnaya Prison, recently seen in the news, is located in which of the following countries?

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

11. Which of the following is a characteristic of La Niña?

- (a) Unusually warm ocean temperatures in the central and eastern equatorial Pacific.  
 (b) Increased rainfall in South America and decreased rainfall in Southeast Asia.  
 (c) Weakening of trade winds across the Pacific Ocean.  
 (d) Increased upwelling of cold, nutrient-rich water along the west coast of South America.

12. Which among the following are **not** the impacts of La Niña?

- (d)ecreased Rainfall in Southeast Asia
- Weaker Atlantic Hurricanes
- (c)ooler Temperature in the United States and Canada

Select the correct answer using the code given below:

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

13. Consider the following statements about Cameroon:

- It is a landlocked country with no access to the water body.
- French and German are the official languages of Cameroon.

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.** (c)onsider the following countries:

- |           |           |
|-----------|-----------|
| 1. Jordan | 2. Israel |
| 3. Qatar  | 4. Oman   |

Which of the following countries shares borders with Saudi Arabia?

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

**15.** With reference to the Arctic Ocean, which of the following statements is/are correct?

- It is the smallest of the world's five ocean basins.
- The landmasses of Eurasia, North America, and Greenland surround the ocean.

Select the correct answer using the code given below:

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

**16.** (c)onsider the following statements about Latakia Port:

- It is a major port city located on the Red Sea coast of Syria.
- It serves as a crucial hub for Syria's agricultural exports, including cotton and cereals.

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.** Santa Ana winds are characterized by which of the following effects?

- Cool and moist winds that bring rain.
- Warm and dry winds that increase wildfire risk.
- Wet winds that lead to floods.
- Freezing winds that bring snow to coastal areas.

**18.** Which among the following are the impacts of La Nina on India?

- More rainfall in most regions.
- Warmer temperatures during the post-monsoon.
- More cyclones in the Indian Ocean.

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   |

**19.** It is situated between mainland Russia and Crimea. It connects the Black Sea and the Sea of Azov and holds significant strategic and geopolitical importance.

Which of the following Straits has been described above?

- |                      |                   |
|----------------------|-------------------|
| (a) Bosphorus Strait | (b) Bering Strait |
| (c) Gibraltar Strait | (d) Kerch Strait  |

**20.** Which of the following countries is a landlocked nation located in the northeastern corner of the Balkan region, bordered by Ukraine and Romania?

- |             |             |
|-------------|-------------|
| (a) Moldova | (b) Serbia  |
| (c) Russia  | (d) Albania |

21. The Ring of Fire, associated with Vanuatu, is best described as:
- A region with extreme climatic events.
  - An area with significant coral reef activity.
  - An arc of high tectonic activity around the Pacific Basin.
  - A volcanic chain surrounding the Indian Ocean.
22. Which of the following countries, located at the northeastern end of the Persian Gulf, shares land borders with Iraq and Saudi Arabia, and is a founding member of the Organization of the Petroleum Exporting Countries (OPEC)?
- Iran
  - Kuwait
  - Bahrain
  - Qatar
23. Siliguri Corridor, share borders with which of the following countries?
- Nepal
  - Bhutan
  - Bangladesh
  - Myanmar
- Select the correct answer using the code given below:
- 1, 2 and 3 only
  - 1 and 3 only
  - 1, 3 and 4 only
  - 1, 2, 3 and 4
24. Consider the following statements regarding Kailash Mansarovar:
- Mount Kailash is considered sacred in Hinduism, Buddhism, and Islam.
  - Lake Mansarovar is the world's highest saltwater lake.
  - Indian pilgrims can access Kailash Mansarovar through the Lipulekh Pass.
- Which of the statements given above are **not correct**?
- 1 and 2 only
  - 2 and 3 only
  - 1 and 3 only
  - 1, 2, and 3
25. Masali village, which recently became India's first solar-powered border village, is situated in which of the following states?
- Gujarat
  - Rajasthan
  - Himachal Pradesh
  - Arunachal Pradesh
26. Which among the following water bodies are connected by the Panama Canal?
- Mediterranean Sea and Black Sea
  - Red Sea and Arabian Sea
  - Bay of Bengal and Arabian Sea
  - Atlantic Ocean and Pacific Ocean
27. Denali Fault, a major strike-slip fault, forms a boundary between which tectonic plates?
- Pacific Plate and North American Plate
  - African Plate and South American Plate
  - Antarctic Plate and Australian Plate
  - Indian Plate and Eurasian Plate
28. Which of the following statements about the Rann of Kutch is/are correct?
- It was once part of the Arabian Sea but later transformed due to geological shifts.
  - During the monsoon, the Rann of Kutch becomes a freshwater wetland.
  - The region is known for Rogan painting and Kutchi embroidery, both having Geographical Indication (GI) tags.

Select the correct answer using the codes given below:

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

**29.** Which of the following is the primary reason for the formation of the White Desert in the Rann of Kutch?

- (a) Deposition of calcium carbonate from river water.
- (b) Accumulation of salt after the evaporation of water in summer.
- (c) Alkaline soil composition of the region.
- (d) Sediment deposition from the Indus River.

**30.** With reference to the Chilika Lake, consider the following statements:

- 1. It is the world's largest brackish water lagoon located in Odisha.
- 2. It was designated Ramsar Wetland of International Importance in 1981 making it the first Ramsar Site 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 |

**31.** With reference to the Siang River, consider the following statements:

- 1. It originates near Mount Kailash in Tibet, where it is known as the Yarlung Tsangpo.
- 2. It passes through Arunachal Pradesh only.

Which of the statements given above is/are correct?

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

**32.** Consider the following statements with reference to the Baltic Sea:

- 1. It is the oldest sea on Earth, located in Northern Europe.
- 2. It is a large brackish water body connected to St. Petersburg via the Gulf of Finland.

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 |

**33.** Which of the oceans are connected by the Panama Canal, an artificial waterway?

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

**34.** Goolagala-Enderbadi national park, recently seen in the news, is located in which of the following regions?

- |                              |                       |
|------------------------------|-----------------------|
| (a) Cameroon Islands         | (b) Caribbean Islands |
| (c) Central African Republic | (d) Alaska            |

**35.** With reference to Suez Canal, which of the following statements is/are correct?

- 1. It is an artificial waterway that connects the Mediterranean Sea to the Red Sea
- 2. It was officially opened to ships in 1969.

Select the correct answer using the code given below:

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

36. With reference to the Pangong Tso, Consider the following statements:

1. It is a fresh water lake located in the Ladakh region.
2. The lake showcases different shades of colors due to the presence of different algae.

Which of the statements given above is/are correct?

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

#### EXPLANATIONS

1. (a)

**Statement 1 is correct:** Cyclones typically form over **warm ocean waters**, the warmth provides the necessary **heat and moisture** to fuel the cyclone.

- Warm water causes the ocean to **evaporate**, creating warm, moist air. This moist air rises from the ocean surface, leading to a **decrease in air pressure at the surface**.

**Statement 2 is not correct:** As the wind system rotates with increasing speed, an eye gets formed in the middle.

- The **centre of a cyclone is very calm and clear with very low air pressure**. The difference of temperature between the warm, rising and the cooler environment causes the air to rise and become buoyant.

2. (b)

Recent advancements in AI and drone technology have dramatically accelerated the discovery of new Nazca geoglyphs.

- These discoveries provide deeper insights into Nazca culture, which is known for its ritualistic and ceremonial significance rather than written records.

**Nazca Lines** are located 400 km south of Lima, Peru and are ancient geoglyphs found on the barren Nazca Pampa.

**Peru**

- **Location:** It is situated in the western part of South America.
  - It shares borders with **Ecuador, Colombia, Brazil, Bolivia**, and Chile.
- **Geographical Features:** Peru extends along the **Andes**, the world's longest exposed mountain range.

3. (c)

**Context**

- Lake-effect snow blowing in from the Great Lakes has impacted parts of **Michigan, Ohio, Pennsylvania and New York**.

**Process of Lake effect snow**

- As the cold air passes over the unfrozen and relatively warm waters of the Great Lakes, warmth and moisture are transferred into the lowest portion of the atmosphere.
- The air rises, clouds form and grow into a narrow band that produces **2 to 3 inches of snow** per hour or more.

**Geographical Factors**

- **The physical geography of lakes and surrounding terrain** influences snowfall distribution.
- **Wind direction** determines which areas receive snow, causing sharp contrasts; heavy snow in one area and clear skies just a mile away.

## 4. (a)

**El Niño:** El Niño is a climate pattern that occurs in the Pacific Ocean and can cause significant changes in weather patterns worldwide. It can lead to reduced rainfall in many regions, contributing to droughts.

**Deforestation:** While deforestation can exacerbate droughts by reducing water retention in the soil and disrupting local weather patterns, it is primarily a human-induced cause, not a natural one.

**Overgrazing:** Similar to deforestation, overgrazing can worsen drought conditions by damaging vegetation and soil, but it's primarily a human-induced factor.

**Climate Change:** Climate change is altering weather patterns globally, leading to increased frequency and intensity of extreme weather events, including droughts. This is a major natural (though influenced by human activity) cause of droughts.

## 5. (c)

**Context:** Islamist militants in Syria's northwest launched a surprise attack against the forces of President Bashar al-Assad and made dramatic territorial gains.

**About**

- Syria is bordered in the north by **Turkey**, in the east and southeast by **Iraq**, in the south by **Jordan**, in the southwest by Israel and in the west by Lebanon and the Mediterranean Sea.
- **Capital:** Damascus



## 6. (b)

**Context:** The Indian government has issued a travel advisory for its citizens as Syria's Civil War has reignited again.

**About**

- Syria, which has been embroiled in a civil war since the 2011 Arab Spring, experienced a brief period of calm.
- However, in a recent turn of events, Hayat Tahrir al-Sham (HTS) rebels, who have taken control of **Aleppo** and **Hama** and are now advancing toward **Damascus**, have once again destabilized the country.
- HTS which seeks to replace the Assad regime in Syria is a designated terrorist outfit by the UN and countries like the USA and Turkey.
- HTS is led by Abu Muhammad al-Jawlani who is a former commander of Jabhat al-Nusrah, an offshoot of al-Qa'ida.

## 7. (b)

Syria is located in the Middle East, in the western part of the Asian continent.

- It shares borders with Turkey to the north, **Iraq** to the east, **Jordan** to the south, Israel and Lebanon to the southwest, and the Mediterranean Sea to the west.
- Syria occupies a strategic position, linking the **Levant region with the rest of the Arab world**.

8. (d)

**The Levant** is a historical and geographical term referring to a region in the Eastern Mediterranean.

- It includes modern-day countries **Syria, Lebanon, Jordan, Israel, Palestine, and parts of Turkey**.
- The Levant has been a **crossroads of civilizations** throughout history, known for its cultural, religious, and political significance.

9. (a)

**Context:** Gone are the days when illegal items were smuggled from one country to another buried in containers, crates, camouflaged among textiles or other goods. With changing times, smugglers have evolved new and difficult-to-detect methods of smuggling drugs and illicit cash.

**About**

- According to the Smuggling in India 2023-24 report by the **Directorate of Revenue Intelligence (DRI)**, the latest additions to the methods of smuggling include hiding items in children's story books, wigs, shampoo bottles, and even lehengas.
- The Directorate of Revenue Intelligence is the apex **anti-smuggling agency of India**, working under the Central Board of Indirect Taxes & Customs, Ministry of Finance.

**Do you know?**

- India is caught between the **two major narcotics hubs** — the Golden Crescent also known as "Death Crescent" (comprising— Afghanistan, Iran, and Pakistan) and the **Golden Triangle** also known as "Death Triangle" (comprising— **Myanmar, Laos, and Thailand**).

10. (b)

**Context:** Thousands of detainees, primarily political prisoners, were freed from Syria's **Saydnaya Prison**.

**About**

- The Saydnaya prison, also spelt Sednaya, was established in the 1980s in a small town near to the capital Damascus in Syria.
- It was administered by the Syrian military police for decades, with the first detainees arriving in 1987.
- It served as a "human slaughterhouse" while subjecting its detainees to inhumane conditions.



11. (d)

It is one of the three **El Nino Southern Oscillation (ENSO)** phases. La Nina refers to the periodic cooling of ocean surface temperatures in the central and east-central equatorial Pacific. It positively impacts the Indian Monsoon. It leads to **stronger trade winds, causing increased**



**upwelling of cold**, nutrient-rich water along the west coast of South America. This contrasts with El Niño, which causes warmer ocean temperatures and weakens upwelling.

12. (a)

La Niña is a weather phenomenon that occurs in the **Pacific Ocean**. It is the counterpart of El Niño, and both are part of the **larger El Niño-Southern Oscillation (ENSO) cycle**.

- The **trade winds become stronger than usual**, pushing more **warmer waters towards the Indonesian coast**, and making the **eastern Pacific Ocean colder than normal**.

#### Impacts

- **Increased rainfall:** Regions such as Southeast Asia, northern Australia, and parts of South America often experience above-average rainfall during La Niña events.
- **Stronger Atlantic hurricanes:** La Niña tends to reduce wind shear in the Atlantic, creating conditions that are more conducive to the development of hurricanes.
- **Cooler temperatures:** Some areas experience cooler temperatures than normal, particularly in the Pacific Northwest of the United States and parts of South America.

13. (d)

**Statement 1 is not correct:** Cameroon has a coastline along the Atlantic Ocean. Situated at the junction of western and central Africa.

**Statement 2 is not correct:** The official languages of Cameroon are French and English, not German.

14. (b)

**Context:** FIFA awarded Saudi Arabia the 2034 Men's World Cup, marking the kingdom's most significant sports achievement yet.

#### About: Saudi Arabia

- It is the largest Arab country of the Middle East.
- It is bordered by **Jordan** and **Iraq** on the north and northeast, **Kuwait**, **Qatar**, **Bahrain** and the **United Arab Emirates** on the east, **Oman** on the southeast, and **Yemen** on the south.



15. (c)

**Context:** The Arctic Ocean may see its first ice-free day — when its waters have less than one million square kilometres of sea ice — by 2030, or sooner than previously expected, according to a new study.

#### Arctic Ocean

- It is the **smallest** of the world's **five ocean basins** (after the Pacific Ocean, Atlantic Ocean, Indian Ocean, and the Southern Ocean).

- It occupies the most northern region of Earth. The landmasses of **Eurasia** (Europe and Asia), **North America**, and **Greenland** surround the ocean.

16. (b)

**Statement 1 is not correct:** Latakia Port is located on the Mediterranean coast of Syria, not the Red Sea.

**Statement 2 is correct:** Latakia is indeed a major export hub for Syrian agricultural products.

17. (b)

**Context**

- The Santa Ana winds and climate change are fueling wildfires in Malibu, California.

**Santa Ana winds**

- Santa Ana winds are **dry, warm, and powerful winds** that originate in the Great Basin, a region between the **Rocky Mountains and the Sierra Nevada**.
- They occur when high-pressure systems develop over the inland deserts, while low-pressure conditions prevail over **California's coastal areas**.
- This pressure difference forces strong winds to **flow westward**, descending the mountains toward the **Pacific Ocean**.

**Impact**

- As these winds descend, they compress, heat up, and lose humidity—sometimes reducing moisture levels to below 10%.
- The resulting hot and dry conditions desiccate vegetation, making it highly flammable and prone to wildfires.

18. (c)

**What is La Nina?**

- It means **Little Girl** in Spanish. La Niña is also sometimes called El Viejo, anti-El Niño, or simply "a cold event."
- The **trade winds become stronger than usual**, pushing more **warmer waters towards the Indonesian coast**, and making the **eastern Pacific Ocean colder than normal**.

**Impact on India**

- **More rainfall** in most regions, leading to a stronger monsoon.
- **Increased risk of flooding** and waterlogging in many parts of the country.
- **Cooler temperatures** during the post-monsoon and winter months.
- **More cyclones** in the Indian Ocean, increasing risks for coastal areas.
- **Possible agricultural disruptions** due to heavy rainfall, floods, and delayed harvesting.

19. (d)

**Context:** A violent storm in Russia's Kerch Strait caused significant damage to two oil tankers, leading to a spill.

**Kerch Strait**

- The Kerch Strait, situated between **mainland Russia and Crimea**.
- It is a connection between the **Black Sea and the Sea of Azov**.
- It also separates the Kerch and Taman Peninsulas.
- It is a key route for exports of Russian grain and is also used for exports of crude oil, fuel oil and liquefied natural gas.



20. (a)

**Context:** India expressed gratitude to Moldova for its crucial support in airlifting stranded Indian nationals during the Ukraine crisis, as part of Operation Ganga.

**About Moldova**

- **Geography :** It is a **landlocked country** lying in the northeastern corner of the **Balkan region** of Europe. It is bordered by **Ukraine and Romania**.



- **Chisinau** – the Capital
- **Rivers:** Prut river, Dniester river, Danube River etc.
- Moldova declared its independence from the Soviet Union in 1991 and established diplomatic relations with India in 1992.

21. (c)

The Ring of Fire is a horseshoe-shaped region around the Pacific Basin, known for intense tectonic activity, including frequent earthquakes and volcanic eruptions. Vanuatu, situated along this arc, is part of this geologically active zone.

22. (b)

**Context:** Prime Minister Narendra Modi arrived in Kuwait for a two-day visit aimed at strengthening ties with the Gulf nation.

**About: Kuwait**

- Despite being one of the smallest countries in the region, it holds significant strategic importance.
- Located at the north-east end of the **Persian Gulf**, it shares borders with **Iraq and Saudi Arabia** and hosts important American military bases.
- It is the only monarchy in the region which has experimented successfully with democracy.
- It is also one of the **founding members** of the Organization of the Petroleum Exporting Countries (OPEC).



23. (a)

Also referred to as the **Chicken's Neck**, Siliguri Corridor is a narrow strip of land in West Bengal that connects the Northeastern States to the rest of the country.

- It is a very important strategic area of eastern India, located between Mahananda and Teesta river.
- It shares international borders with **Nepal, Bhutan and Bangladesh**.

24. (a)

**Statement 1 is not correct:** Kailash Mansarovar is located in the Tibet Autonomous Region of China. While Mount Kailash is sacred in Hinduism and Buddhism, it is not considered a holy site in Islam. It holds significance in Jainism as well.

**Statement 2 is not correct:** Lake Mansarovar is a freshwater lake, not a saltwater lake. It is one of the highest freshwater lakes in the world.

**Statement 3 is correct:** The Lipulekh Pass in Uttarakhand is one of the routes for Indian pilgrims to access Kailash Mansarovar.

25. (a)

**In News:** Masali village has become India's first solar-powered border village.

**About Masali**

- It is situated in Banaskantha district of **Gujarat**.
- It is located 40 km from the Pakistan border.
- The village of 800 people now has 119 houses with solar rooftops, generating over 225 kilowatts of electricity.
  - This initiative, part of the **PM Suryaghar Yojana**, was carried out under the Border Development Project.
- Masali is the second solar village in Gujarat, after Modhera, and the first in a border area in India.

26. (d)

**Context**

- US President-elect Donald Trump has threatened to reclaim the Panama Canal, citing rising tariffs and concerns over sovereignty.

**About**

- **Panama Canal**, is an **artificial 82-km waterways** formally inaugurated in **1914**.
- It is connecting the **Atlantic Ocean** with the **Pacific Ocean** by providing a shortcut through the **Isthmus of Panama**.
- The Panama Canal locks at each end lift ships up to **Gatun Lake**, an artificial freshwater lake 26 m above sea level created by damming up the **Chagres River** and **Lake Alajuela**.
- **Significance:** Nearly 6% of global trade (by value) passes through the canal, making it one of the world's most critical maritime trade routes.

27. (a)

**Context**

- Recent research highlights three geological sites along the Denali Fault that were once a united feature but were later separated by tectonic activity.

**About**

- The Denali Fault** is a major **intracontinental dextral (right lateral) strike-slip fault** in western North America, spanning from northwestern **British Columbia, Canada, to central Alaska, USA**.
- Tectonic Setting:** It forms a boundary between the **Pacific Plate** and the **North American Plate**.

28. (b)

**Statement 1 is correct:** The Rann of Kutch was indeed submerged under the Arabian Sea in the past. Geological uplift and shifting river courses led to its transformation into a salt marsh.

**Statement 2 is not correct:** During the monsoon, the Rann of Kutch floods with seawater, not freshwater. The high salt content in the soil prevents the growth of most freshwater vegetation.

**Statement 3 is correct:** The Rann of Kutch is renowned for its unique crafts, including Rogan painting and Kutchi embroidery. Both have been awarded Geographical Indication (GI) tags, recognizing their distinct origin and cultural significance.

29. (b)

The White Desert, also known as the Great Rann of Kutch, is a vast salt flat. Salt flats form when water bodies evaporate, leaving behind dissolved salts that crystallize and accumulate on the surface. The Rann of Kutch floods during the monsoon season. However, the water is primarily seawater, and the intense summer heat causes it to evaporate rapidly. This leaves behind a thick layer of salt, creating the characteristic white landscape.

30. (b)

**Statement 1 is not correct: Location:** Chilika lake, **Asia's largest brackish water lagoon**, located in Odisha.

- It lies between the deltas of the Mahanadi and Godavari rivers, opening out into the Bay of Bengal.

**Statement 2 is correct: Conservation Status:** Chilika Lake was designated Ramsar Wetland of International Importance in **1981** making it the **first Ramsar Site of India**.

- The lake is also part of the Chilika Wildlife Sanctuary, which helps protect its flora and fauna.

31. (a)

**Statement 1 is correct: Siang River** originates near Mount Kailash in Tibet, where it is known as the Yarlung Tsangpo.

**Statement 2 is not correct: Siang River** is a major tributary of the Brahmaputra River.

- It traverses over 1,000 km eastward before entering **Arunachal Pradesh** as the Siang.
- Further downstream, in **Assam**, it joins tributaries like the Dibang and Lohit to become the Brahmaputra.

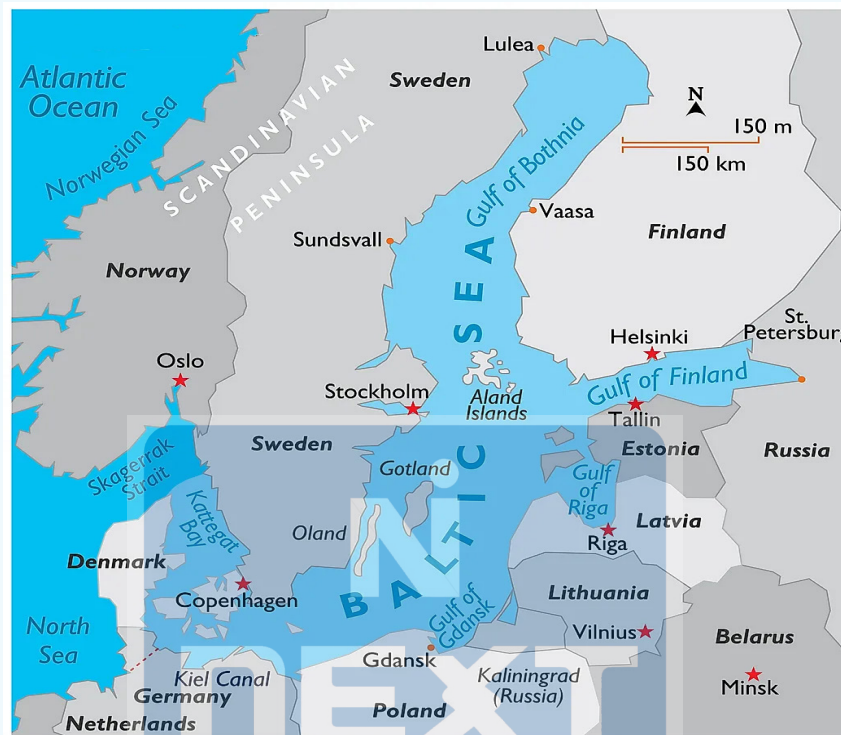
32. (b)

**Context:** NATO to enhance military presence in Baltic Sea after undersea power and internet cables cut.



### About the Baltic Sea

- It is the **youngest sea** on Earth, formed 10,000-15,000 years ago as glaciers retreated at the end of the **last Ice Age**.
- It is located in Northern Europe, enclosed by Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia, and Sweden.
- It is one of the **largest bodies of brackish water** on the planet (Earth), connected to St. Petersburg by the Gulf of Finland.



33. (b)

Donald Trump threatened to reimpose U.S. control over the canal, citing high fees and concerns over Chinese influence in nearby ports.

- Panamanian President Jose Raul Mulino rejected Trump's threat, reaffirming that the canal is under Panama's full control.
- The Panama Canal is an 82-km (51-mile) artificial waterway connecting the **Pacific and Atlantic Oceans**, saving ships thousands of miles and weeks of travel.
- Spanish colonizers studied the canal in the 1530s, and after a failed French attempt, the U.S. took over in 1903, after supporting Panama's independence.
  - The U.S. paid Panama \$10 million and an annual annuity for the canal's construction and administration, which led to the canal's opening in 1914.
- It shortens travel time for ships, such as the journey from Los Angeles to New York, by about 8,000 miles (22 days) compared to the southern route around South America.

34. (a)

### Context

- In Cameroon, the NGO Papaye International runs a sanctuary for the Orphaned Chimpanzees on three islands in the **Douala-Edea national park**.

### Cameroon Islands

- The Cameroon Islands refer to the chain of volcanic islands associated with the Cameroon Volcanic Line, a unique geological formation stretching from the **Gulf of Guinea** into the **mainland of Africa**.



- The key islands associated with it are Annobón (Pagalu), São Tomé, Príncipe etc.

35. (a)

**Context**

- Egypt has tested a new **10-kilometre extension** to the Suez Canal as it tries to minimise the impact of currents on shipping and increase the key waterway's capacity.

**Statement 1 is correct** : The Suez Canal is a **193-km artificial waterway** that connects the **Mediterranean Sea to the Red Sea**, making it the shortest maritime route between Europe and Asia.

**Statement 2 is not correct**: It was officially opened to ships in **1869**.

- The Canal **does not have locks** and it is essentially a sea-level waterway.
  - This characteristic allows for a **smoother, more efficient passage of vessels**, thus supporting a high volume of maritime traffic.
- It is one of the busiest waterways in the world through which **12%** of global commerce passes.

36. (d)

**Both the statements are not correct**: It is **one** of the **world's highest saltwater** lakes at an altitude of **4,350 meters** above sea level, located in the **eastern Ladakh region of northern India**.

- It derives its name from the Tibetan word, "**Pangong Tso**", which means "**high grassland lake**".
- The **western part of the lake lies in Indian territory**, while the eastern part is under Chinese control.
- It is saline and **does not support any aquatic life**, though it is home to some migratory bird species.
- **Changing hues**: The lake showcases different shades of **blue, green, and sometimes even red**, depending on the **angle of the sunlight and the weather conditions**.

# GOVERNMENT SCHEMES/ INITIATIVES

ves

1. Which of the following best describes the Sugamya Bharat Abhiyan?
  - (a) A program focused on increasing employment opportunities for persons with disabilities in government offices.
  - (b) A campaign aimed at making public infrastructure such as buildings, transport, and information accessible to persons with disabilities.
  - (c) A scheme to provide financial aid to individuals with disabilities for starting businesses.
  - (d) A campaign to provide financial support for the education of persons with disabilities.
2. Recently the Union government launched the Anna Chakra platform. What is the primary objective of this platform?
  - (a) Increase the production of food grains in India.
  - (b) Optimize the supply chain for food grain distribution.
  - (c) Promote organic farming practices among Indian farmers.
  - (d) Enhance nutritional quality through fortified food distribution.
3. With reference to the *PM Surya Ghar Muft Bijli Yojana (PMSGMBY)*, consider the following statements:
  1. It is implemented by the National Programme Implementation Agency (NPIA) at national and state levels.
  2. (a)pplicants must be Indian citizens and own a house with a suitable roof for solar panel installation under this 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
4. With reference to the 'Bima Sakhi Yojana' of Life Insurance Corporation, consider the following statements:
  1. It is designed to empower women aged 18-70 years, who are Class X pass.
  2. The scheme provides a monthly stipend of ₹7,000 in the first year, ₹6,000 in the second, and ₹5,000 in the third.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. What is the primary objective of the Amrit Gyaan Kosh portal?
  - (a) To promote e-learning for students
  - (b) To strengthen governance training and capacity-building for civil servants
  - (c) To provide financial literacy to rural households
  - (d) To digitize government welfare schemes

6. Consider the following statements regarding the SVAMITVA, a property survey and mapping scheme:
1. Launched in 2020, it is a central sponsored scheme.
  2. The scheme aims to cover the entire country by the end of financial year 2025-26.
- 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 Pradhan Mantri - Ayushman Bharat Health Infrastructure Mission (PM-ABHIM), consider the following statements:
1. It is a Centrally Sponsored Scheme (CSS) with certain Central Sector Components.
  2. It focuses on improving health systems at primary, secondary, and tertiary care levels.
- 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 of the following statements are correct regarding India's first Undergraduate (UG) Minor programme in Quantum Technologies?
1. It was launched by the Ministry of Labour & Employment in collaboration with the National Quantum Mission (NQM).
  2. It focuses on Quantum Computation and Simulation.
  3. It is open to students from all engineering disciplines.
- How many of the statements given above are correct?
- (a) Only one (b) Only two  
(c) All three (d) None
9. With reference to the Prime Minister's Citizen Assistance and Relief in Emergency Situations Fund (PM CARES Fund), consider the following statements:
1. The Finance Minister is the ex-officio chairman of the fund.
  2. Donations will not qualify to be counted as Corporate Social Responsibility (CSR) expenditure.
- 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. Consider the following statements with reference to the Smart Cities Mission (SCM):
1. It is a Central Sector Scheme and is being implemented by the Ministry of Housing and Urban Affairs.
  2. It aims to improve the quality of life in 100 cities through efficient services, robust infrastructure, and sustainability.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2

## EXPLANATIONS

1. (b)

**Context:** Nine years ago, the **Sugamya Bharat Abhiyan**, also known as the Accessible India Campaign, embarked on a mission to reshape India into a truly inclusive society.

**About**

- Launched on 3rd December 2015, this flagship initiative was a direct response to the long-overlooked challenges faced by **persons with disabilities**.
- The campaign aimed to ensure universal accessibility across **three vital domains**: built infrastructure, transport systems, and the information and communication technology (ICT) ecosystem.

2. (b)

**Context**

- The Union government recently launched the **Anna Chakra** and the **Subsidy Claim Application for NFSA (SCAN) portal**, ushering in reforms to modernize the Public Distribution System (PDS) and streamline subsidy claim processes.

**What is Anna Chakra?**

- It is developed by the Department of Food and Public Distribution in collaboration with the **World Food Programme (WFP)** and IIT Delhi's Foundation for Innovation and Technology Transfer (FITT).
- It employs advanced algorithms to **optimize food grain movement across the supply chain**, involving farmers, transporters, warehouses, and Fair Price Shops (FPS).

3. (b)

**Statement 1 is not correct**

- **PM Surya Ghar Muft Bijli Yojana (PMSGMBY)** is a transformative initiative launched to promote the adoption of solar energy in residential households.
- It aims to provide free electricity to households through the installation of rooftop solar panels.
- The implementation is overseen by a **National Programme Implementation Agency (NPIA)** at the **national level**, while **State Implementation Agencies (SIAs)** manage the execution **at the state level**.

**Statement 2 is correct**

- Applicants **must be Indian citizens**, **own a house** with a suitable roof for solar panel installation, have a **valid electricity connection**, and **not have availed any other subsidy for solar panels**.

4. (c)

**Context:** Prime Minister Narendra Modi launched the 'Bima Sakhi Yojana' of Life Insurance Corporation, in line with his commitment to women empowerment and financial inclusion, in Panipat, Haryana.

**About: LIC's Bima Sakhi Yojana**

- It is designed to empower women aged **18-70 years**, who are **Class X pass**.
- They will receive specialized training and a stipend for the first three years to promote financial literacy and insurance awareness.
- The scheme offers a total stipend of **₹7,000** per month to each candidate in the first year, **₹6,000** per month in the second year and **₹5,000** per month in the third year.

- Over and above, bima sakhis can also earn commission for selling LIC policies.

5. (b)

#### Context

- The Union government launched the “Amrit Gyaan Kosh” Portal to strengthen governance training and capacity-building for civil servants.

#### About

- **The Amrit Gyan Kosh portal** is part of **Mission Karmayogi**, which aims to reform civil service training and enhance governance efficiency.
- The portal curates best practices across India, aligning with 15 of the 17 **Sustainable Development Goals (SDGs)**.
- **It covers diverse themes** such as health, education, agriculture, and digital governance, enabling faculty and policymakers to align training with global standards while **addressing India’s unique administrative challenges**.

6. (b)

**Context:** Prime Minister Narendra Modi has asked all Union ministers to attend the public events to be held to distribute 57 lakh property cards among a dozen states and UTs on December 27, under SVAMITVA, a **central sector scheme**.

#### About

- SVAMITVA, a property survey and mapping scheme, was launched by the Prime Minister on the occasion of National Panchayati Raj Day on **April 24, 2020** and distribution of property cards began on October 11 that year. So far, 2 crore property cards have been issued
- The scheme aims to cover the entire country by the end of **financial year 2025-26**.

7. (c)

**In News :** The Delhi High Court directed the Aam Aadmi Party (AAP) government to sign a Memorandum of Understanding (MoU) with the Ministry of Health and Family Welfare for the implementation of the PM-ABHIM.

**Statements 1 and 2 are correct :** Pradhan Mantri - Ayushman Bharat Health Infra Structure Mission (PM-ABHIM) was launched on 25th October 2021 with an outlay of Rs. 64,180 Crore.

- To be implemented over five years (2021-2026).
- It includes both **Centrally Sponsored Scheme (CSS) and Central Sector (CS)** components.
- It focuses on improving health systems at primary, secondary, and tertiary care levels, and preparing for future pandemics.
- **It aims to strengthen public health infrastructure, surveillance, and health research across urban and rural areas.**

8. (b)

**Statement 1 is not correct :** The All India Council for Technical Education (AICTE) has partnered with the National Quantum Mission (NQM) to launch **India’s first Undergraduate (UG) Minor Programme in Quantum Technologies**.

**Statements 2 and 3 are correct :** The programme aims to prepare India’s workforce for the quantum revolution, positioning the nation as a global leader in quantum innovation.

- It is open to students from all engineering disciplines.
- **Focus:** Quantum Computation and Simulation

- Quantum Communication and Cryptography
- Quantum Sensing
- Quantum Materials and Devices
- It is designed to bridge the gap between academia and industry.

9. (d)

**Both the statements are not correct:** The PM CARES Fund was registered as a **Public Charitable Trust** under the **Registration Act, 1908 in 2020.**

- It was established in the wake of the **Covid-19 pandemic.**
- **Objective:** Dealing with any kind of emergency or distress situation, like posed by the COVID-19 pandemic, and to provide relief to the affected.
- **Governance: The Prime Minister is the ex-officio chairman** of the PM CARES Fund, while the Defence Minister, Home Minister and Finance Minister are ex-officio trustees of the Fund.
  - It is not a part of the government budget, and its workings are separate from the government's direct financial control.
- **Tax Benefits:** Donations to PM CARES Fund would qualify for 80G benefits for 100% exemption under the Income Tax Act, 1961.
  - **Donations will also qualify to be counted as Corporate Social Responsibility (CSR) expenditure** under the Companies Act, 2013.

10. (b)

**Context:** A study by the Indian Institute of Management, Bangalore, reveals that the introduction of smart classrooms under the Smart Cities Mission has led to a 22% increase in overall enrolment in 19 cities from 2015-16 to 2023-24.

**About the Smart Cities Mission (SCM)**

- It is a **Centrally Sponsored Scheme** launched in 2015.
- It covers **100 cities** and is being implemented by the **Ministry of Housing and Urban Affairs.**
- Originally slated for completion by 2019-20, the SCM has been extended to 31 March 2025, with 91% of projects completed as of November 2024.
- **Four pillars:** Social Infrastructure, Physical Infrastructure, Institutional Infrastructure, and Economic Infrastructure.
- **Objective & Significance:**
  - To promote cities that provide core infrastructure and give a decent quality of life to their citizens, a clean and sustainable environment and application of 'Smart' Solutions.
  - Make Cities liveable, inclusive, sustainable (Area-based development).
  - Create employment opportunities.

■■■■



# DEFENSE/ INTERNAL SECURITY

1. AGNI WARRIOR, is a Joint Military Exercise between India and which one of the following countries?  
(a) Australia (b) Malaysia  
(c) Thailand (d) Singapore
2. Which among the following can be the reasons for the rise of Hybrid Warfare in the contemporary world?
  1. Avoiding Direct Confrontation with the Enemy State.
  2. Rise of Social Media.
  3. High Cost associated with Conventional Warfare.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
3. With reference to the Border Security Force (BSF), consider the following statements:
  1. It was established in the wake of 1971 India-Pakistan war and is often referred to as India's First Line of Defence.
  2. It is one of the seven Central Armed Police Forces of the Union of India and is under the administrative control of the Ministry of Home Affairs.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. Exercise CINBAX, recently mentioned in the news, is conducted between India and which of the following countries?  
(a) Chad (b) Czech Republic  
(c) Cambodia (d) Colombia
5. HARIMAU SHAKTI, is a Joint Military Exercise between India and which one of the following countries?  
(a) Japan (b) Malaysia  
(c) Thailand (d) Singapore
6. Nirdeshak, the newly commissioned ship of the Indian Navy, is primarily designed for which of the following purposes?  
(a) Anti-submarine warfare (b) Hydrographic surveys and navigation support  
(c) Amphibious assault operations (d) Aircraft carrier operations
7. Which of the following countries is not a participant in the Desert Knight Exercise?  
(a) India (b) France  
(c) United Arab Emirates (UAE) (d) Saudi Arabia

8. The bilateral naval exercise SLINEX is conducted between India and which one of the following countries?
- (a) Maldives (b) Singapore  
(c) Bangladesh (d) Sri Lanka
9. Vijay Diwas is observed on December 16 every year to commemorate:
- (a) The signing of the Instrument of Accession by Indian princely states.  
(b) The victory of the Indian Armed Forces in the 1965 war.  
(c) The surrender of Pakistani forces in the 1971 Indo-Pak war.  
(d) The Indian Army's glorious victory in the Kargil War.
10. Which among the following military action undertaken by India to liberate Goa from Portuguese rule?
- (a) Operation Vijay (b) Operation Meghdoot  
(c) Operation Shakti (d) Operation Trident
11. With reference to the '*Stealth Frigate INS Tushil*', consider the following statements:
1. It is a result of the military and technical cooperation between India and France.
  2. It is a part of Project-75 (I).
- 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. Joint exercises—Al Mohed Al Hindi and Sada Tanseeq are conducted between India and which of the following countries?
- (a) Saudi Arabia (b) Oman  
(c) United Arab Emirates (d) Qatar
13. Exercise SURYA KIRAN is a joint military exercise between India and which of the following countries?
- (a) Bangladesh (b) Nepal  
(c) Sri Lanka (d) Japan

### EXPLANATIONS

#### 1. (d)

**News:** The 13th edition of Joint Military Exercise AGNI WARRIOR (XAW-2024), a bilateral exercise between the **Indian Army and Singapore Armed Forces**, concluded at Field Firing Ranges, Devlali (Maharashtra).

#### About

- The three-day exercise conducted from 28th to 30th November 2024, witnessed participation by the Singapore Armed Forces contingent comprising 182 personnel from the Singapore Artillery and the Indian Army contingent comprising 114 personnel from the Regiment of Artillery.
- The aim of XAW-2024 was to maximise mutual understanding of drills and procedures to achieve jointness as a multinational force under the United Nations Charter.
- The exercise showcased joint firepower planning, execution and use of New Generation Equipment by the Artillery of both Armies.

2. (d)

**Hybrid Warfare** means **broadening military operations** to include espionage, sabotage and cyberattacks, as well as engaging in election interference, propaganda or disinformation campaigns to weaken and destabilise the enemy from within.

**Reasons for the rise of Hybrid Warfare:**

- **To Avoid Direct Confrontation:** In the Cold War, the US and the Soviet Union engaged in hybrid warfare as the two nuclear powers wanted to avoid outright confrontation.
- **To maintain Military Might:** After the Soviet Union broke up, Russia found its military might diminished, which only encouraged the further use of hybrid warfare to avoid direct military confrontation with the West.
- **Inexpensive War:** As the costs of conventional conflict in a nuclear era continues to grow, it is much more feasible to sponsor a hybrid warfare.
- **Increased Cyber Networks:** The increasing reliance on digital infrastructure and communication systems has opened new avenues for conflict.
  - Cyberattacks allow adversaries to disrupt critical infrastructure, steal sensitive data, or manipulate information.
- **Rise of Social Media:** The proliferation of social media and digital platforms has made it easier to spread disinformation, influence public opinion, and destabilize governments.

3. (b)

**Context:** The Border Security Force (BSF), often referred to as India's First Line of Defence, celebrates its Raising Day every year on December 1.

**About**

- **Establishment:** On **December 1, 1965**, in the wake of the **1965 India-Pakistan war**.
- **Administrative Control:** It is one of the seven **Central Armed Police Forces (CAPFs)** of the Union of India and is under the administrative control of the **Ministry of Home Affairs (MHA)**.
- **Deployment:** Deployed at Indo-Pakistan International Border, Indo-Bangladesh International Border and Line of Control (LoC), along with Indian Army and in Anti-Naxal Operations.
- **Officials:** Although, the BSF has its own cadre of officers but its head, designated as a **Director-General (DG)**, since its raising has been an officer from the **Indian Police Service (IPS)**.
- **Logo and motto:** The Logo of BSF has **two spikes of grains**, embracing the National Emblem of India and the typeface BSF. The motto of BSF "DUTY UNTO DEATH" is placed at the bottom.

4. (c)

**Context:** The 1st edition of joint table top exercise CINBAX, between the Indian Army and the Cambodian Army commenced at Foreign Training Node, Pune (India).

**About**

- Exercise CINBAX is a **planning exercise** designed to simulate joint Counter Terrorism (CT) operations conducted under **Chapter VII** of the United Nations Charter.
- The exercise will be carried out in **three phases** and will include discussions on information operations, cyber warfare, hybrid warfare, logistics and casualty management, HADR (Humanitarian Assistance and Disaster Relief) operations etc.
- The inaugural edition of Exercise CINBAX will focus on enhancing trust, camaraderie and achieving desired level of interoperability between troops of both sides.

5. (b)

**Context:** The 4th edition of India- Malaysia Joint Military Exercise HARIMAU SHAKTI commenced, at Bentong camp, Malaysia.

**About: Exercise HARIMAU SHAKTI**

- It is an annual training event conducted alternatively in **India and Malaysia**. The last edition was conducted in Nov 2023 at Umroi Cantonment in Meghalaya, India.
- The aim of the Joint Exercise is to enhance joint military capability of both sides to undertake counter insurgency operations in jungle terrain under **Chapter VII** of the United Nations Mandate. The exercise will focus on operations in the jungle environment.

6. (b)

**Context**

- The Indian Navy is set to commission the latest survey ship, Nirdeshak, at Naval Dockyard, Visakhapatnam.

**About**

- **Nirdeshak** is the **second** ship of the **Survey Vessel (Large) Project** and is **built** at GRSE Kolkata.
- **Purpose:** It is designed to conduct hydrographic surveys, aid in navigation, and support maritime operations.

7. (d)

**Context:** India, France, and the UAE have launched Desert Knight, defence exercise.

**About Desert Knight Exercise**

- **Nations Involved:** India, France, and the United Arab Emirates (UAE).
- **Location:** Conducted over the Arabian Sea, approximately 350-400 km southwest of Karachi.
- **Objective:** Strengthen trilateral defence cooperation.
  - Enhance combat skills and interoperability among the air forces of the three nations.

**Significance**

- Desert Knight aligns with India's broader Indo-Pacific strategy, which emphasizes cooperation with like-minded nations to ensure a free, open, and inclusive Indo-Pacific region.
- Countering China's Influence.

8. (d)

**Context:** The bilateral naval exercise SLINEX 2024 (Sri Lanka–India Exercise) commenced at Visakhapatnam (India).

**About**

- Initiated in **2005**, the 11th edition will be held in **two phases** - the Harbour Phase and the Sea Phase.
- **SLINEX aims** at enhancing interoperability, improving mutual understanding and exchanging best practices while jointly undertaking multi-faceted maritime operations.
- The 10th edition, exercise SLINEX-23, was held at Colombo (Sri Lanka).

9. (c)

**Context:** Vijay Diwas is observed annually on **December 16** across India and Bangladesh, honoring the sacrifices and valor of those who fought in the **Indo-Pakistan War of 1971**.

**About**

- The **1971 Indo-Pak War** began with Pakistan launching **pre-emptive airstrikes** against 11 Indian airbases on 03 December 1971. The war, which was short and intense, was fought on both **Eastern and Western fronts**.

- On December 16, 1971, at Ramna Race Course (now Suhrawardy Udyan) in Dhaka, Bangladesh, Lt. Gen. Jagjit Singh Aurora, leading the **Allied Forces** (comprising Indian troops and Mukti Bahini), **accepted the surrender of Lt. Gen. Amir Abdullah Khan Niazi**, Chief of the Pakistan Forces, along with 93,000 Pakistani troops.
- This decisive victory in the Indo-Pakistan War of 1971 led to the **liberation of East Pakistan**, which became the independent nation of **Bangladesh**.

## 10. (a)

**Context**

- Goa Liberation Day is celebrated every year on **December 19** to mark the freedom of Goa from Portuguese rule in **1961**.

**Operation Vijay**

- It was the codename for the military action undertaken by India to liberate Goa.
- The operation began on December 17, 1961, and lasted for two days.
- On December 19, 1961, the Portuguese Governor-General **Manuel Antonio Vassalo e Silva** surrendered to Indian forces.

## 11. (d)

**Statement 1 is not correct**

- The construction of **INS Tushil** is a result of the strong military and technical cooperation between **India and Russia** built at the **Yantar Shipyard in Kaliningrad, in Russia**.
- Indian components account for 26% of its construction, highlighting the collaborative effort.

**Statement 2 is not correct**

- **INS Tushil** is part of the upgraded Krivak III class of **Project 1135.6 frigates**.
- However, **Project-75 (India)**, also known as P-75(I), aims to build six diesel-electric submarines for the Indian Navy.

## 12. (a)

**[SOL]Context:** India and Saudi Arabia are enhancing defence cooperation by focusing on joint ventures and industrial collaboration to localise defence production.

**India Saudi Defence collaboration**

- **Saudi Arabia signed a \$250 mn contract** for ammunition from Munitions India Limited, a Defence Public Sector Undertaking.
- Saudi Arabia has procured the **155mm Advanced Towed Artillery Gun System (ATAGS)** from Bharat Forge.
- **Joint exercises:**
  - **Sada Tanseeq:** The inaugural Army exercise between the two countries held in Rajasthan in January 2024.
  - **Tarang Shakti:** Saudi Arabia participated as an observer in India's largest air exercise.
  - **Al Mohed Al Hindi:** Bilateral naval exercise initiated in 2021.

## 13. (b)

The 18th edition of Exercise SURYA KIRAN will take place in Saljhandi, Nepal from 31st December 2024 to 13th January 2025.

**About SURYA KIRAN**

- It is an annual joint military exercise conducted alternately between India and Nepal.
- It aims to enhance interoperability in jungle warfare, counter-terrorism operations, and Humanitarian Assistance and Disaster Relief (HADR) under the United Nations Charter.



# INTERNATIONAL RELATIONS

1. Which of the following statements about the New Development Bank (NDB) is/are correct?
  1. Its membership is limited to BRICS nations.
  2. The initial subscribed capital is \$50 billion with equal contributions from founding members.
  3. It primarily focuses on projects in developed countries.
  - (a) 1 and 2 only
  - (b) 2 only
  - (c) 1 and 3 only
  - (d) 2 and 3 only
2. With reference to the Indo-Pacific Economic Framework for Prosperity (IPEF), consider the following statements:
  1. The framework is structured around four pillars relating to Trade, Supply Chain Resilience, Clean Economy, and Fair Economy.
  2. Australia and New Zealand are not members of the IPEF.Which of the statements given above is/are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
3. Which among the following organizations have jointly launched the International Advisory Body for Submarine Cable Resilience?
  - (a) International Telecommunication Union (ITU) and the International Cable Protection Committee (ICPC)
  - (b) International Maritime Organization (IMO) and the World Trade Organization (WTO)
  - (c) United Nations Development Programme (UNDP) and International Energy Agency (IEA)
  - (d) World Economic Forum (WEF) and the International Data Corporation (IDC)
4. Consider the following statements about the United Nations Convention to Combat Desertification (UNCCD):
  1. It was adopted in 1994 as the sole legally binding international agreement.
  2. The primary objective of the UNCCD is to achieve land degradation neutrality by 2030.
  3. India hosted the 14th session of the Conference of Parties (COP) to the UNCCD.Which of the statements given above is/are correct?
  - (a) 1 and 2 only
  - (b) 2 and 3 only
  - (c) 1 and 3 only
  - (d) 1, 2, and 3



5. Which of the following statements about the African Union (AU) is not correct?
- It was established in 2001 and is a successor of the Organisation of African Unity (OAU).
  - The AU's headquarters is located in Addis Ababa, Ethiopia.
  - It aims to promote peace, security, and stability in Africa.
  - It has 50 member states, representing all the countries in Africa.
6. With reference to the North Atlantic Treaty Organization (NATO), consider the following statements:
- Created in 1949, it works on the principle of collective defence.
  - It is headquartered in Vienna, Austria.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
7. Consider the following statements about the International Energy Agency (IEA):
- The IEA was established in response to the 1973 oil crisis.
  - India has been a full member of the IEA since 2017.
  - Membership in the Organisation for Economic Co-operation and Development (OECD) is a prerequisite for IEA membership.
- Which of the statements given above is/are correct?
- 1 only
  - 1 and 3 only
  - 2 and 3 only
  - 1, 2, and 3
8. With reference to the UAE and India relations, which of the following statements is/are correct?
- The Indian Institute of Technology (IIT) Bombay has inaugurated its campus in Abu Dhabi.
  - The Desert Cyclone exercise 2024, marked a milestone in military cooperation between them.
- Select the correct answer using the code given below:
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
9. Yuga Yugeen Bharat National Museum is a collaboration between India and which of the following countries?
- France
  - Russia
  - United Kingdom (UK)
  - Germany
10. The Phewa Dialogue derives its name from which of the following?
- A mountain range in Nepal
  - A river in the Pokhara Valley
  - A lake in the Pokhara Valley
  - A cultural festival in Nepal

- 11.** With reference to the BIMSTEC, consider the following statements:
1. It is a regional organization comprising countries from South Asia and Southeast Asia.
  2. India, China, and Pakistan are founding members of BIMSTEC.
- Which of the statements given above are correct?
- (a) 1 only  
(b) 2 only  
(c) Both 1 and 2  
(d) Neither 1 nor 2
- 12.** Consider the following statements regarding the Asian Development Bank (ADB):
1. ADB provides loans, technical assistance, and equity investments to its member countries.
  2. All members of the ADB are from the Asia-Pacific region.
  3. India is one of the founding members of ADB.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only  
(b) 1 and 3 only  
(c) 2 and 3 only  
(d) 1, 2, and 3
- 13.** With reference to the H-1B Visas, consider the following statements:
1. It is issued by the United States, Australia and Germany.
  2. Indians have been the majority of H-1B visa-holders in the past few 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
- 14.** Consider the following countries:
1. Afghanistan
  2. Bangladesh
  3. Canada
  4. Mauritius
  5. Saudi Arabia
- How many of the above countries are part of the extradition treaty with India?
- (a) Only two  
(b) Only three  
(c) Only four  
(d) All five
- 15.** Which of the following statements are correct regarding India's international obligations in the context of refugees?
1. India is a signatory to the 1951 UN Convention relating to the Status of Refugees and the 1967 Protocol.
  2. India is not a party to the International Covenant on Civil and Political Rights (ICCPR).

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. (b)

**Statement 1 is not correct:** While the NDB was founded by the BRICS nations, its membership is open to all members of the United Nations. Several other countries have joined since its inception.

**Statement 2 is correct:** The initial subscribed capital of the NDB is indeed \$50 billion, with equal contributions from the five founding members.

**Statement 3 is not correct:** The NDB's primary focus is on funding infrastructure and sustainable development projects in emerging markets and developing countries, not developed countries.

#### 2. (a)

**Statement 1 is correct:** The framework is structured around **four pillars** relating to **Trade** (Pillar I), **Supply Chain Resilience** (Pillar II), **Clean Economy** (Pillar III), and **Fair Economy** (Pillar IV).

- India has joined Pillars II to IV of IPEF while it has maintained an observer status in Pillar-I.

**Statement 2 is not correct:** IPEF was launched in **2022, in Tokyo**. The members are **Australia**, **Brunei**, **Fiji**, **India**, **Indonesia**, **Japan**, **Korea**, **Malaysia**, **New Zealand**, **Philippines**, **Singapore**, **Thailand**, **Vietnam** and the **U.S.**

- IPEF partners represent approximately **40 percent of the global GDP**, and **28 percent of global goods and services trade**.
- The IPEF **seeks to strengthen economic engagement and cooperation** among partner countries with the goal of advancing growth, economic stability and prosperity in the region.

#### 3. (a)

##### Context

- The **International Telecommunication Union (ITU)** and the **International Cable Protection Committee (ICPC)** have jointly launched the International Advisory Body for Submarine Cable Resilience.

##### What are Submarine Cables?

- **Definition:** Submarine cables are fiber optic cables laid on the ocean floor, connecting two or more landing points across countries and continents.
- **India's Role:** India is a significant player in the global submarine cable network, with 17 international cables and 14 landing stations in cities like Mumbai and Chennai.
  - As of the end of **2022**, the total lit capacity and activated capacity of these cables stood at **138.606 Tbps** and **111.111 Tbps**, respectively.
- **Significance:** Submarine cables form the backbone of the global digital economy, carrying over 99% of international data exchange.
  - They support critical services like e-commerce, financial transactions, and global communications.

#### 4. (d)

**Statement 1 is correct:** The United Nations Convention to Combat Desertification (UNCCD) was adopted in 1994 and is the sole legally binding international agreement addressing issues related to land and soil degradation.

**Statement 2 is correct:** One of the primary objectives of the UNCCD is to achieve Land Degradation Neutrality (LDN) by 2030. This involves balancing degraded land with restored land globally.

**Statement 3 is correct:** India hosted COP14 of the UNCCD in 2019 in New Delhi, where the Delhi Declaration was adopted to reinforce efforts toward sustainable land management and land degradation neutrality.

5. (d)

#### African Union (AU)

- **Establishment:**

- The African Union (AU) was established on May 26, 2001, in Addis Ababa, Ethiopia, and formally launched on July 9, 2002, in Durban, South Africa.
- It succeeded the Organisation of African Unity (OAU), which was established in 1963.

- **Headquarters:**

- Located in Addis Ababa, Ethiopia.

- **Membership:**

- 55 member states, representing all the countries in Africa.

- **Objectives:**

- To achieve greater unity and solidarity among African countries.
- To promote peace, security, and stability on the continent.
- To encourage sustainable development and raise the living standards of African people.

6. (a)

**Context:** Donald Trump called for an immediate ceasefire in Russia's war with Ukraine and reiterated his openness to withdrawing the United States from North Atlantic Treaty Organization (NATO).

#### About: NATO

- Created in **1949**, it is an intergovernmental military alliance between countries of Europe and North America. At present, NATO has 32 member countries.
- NATO's founding member countries were: Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom, and the United States.
- NATO works on the principle of **collective defence** i.e. an attack on one member nation is treated as an attack on them all.
- It is headquartered in **Brussels**, Belgium.

7. (b)

**Statement 1 is correct:** The International Energy Agency (IEA) was indeed established in the wake of the 1973 oil crisis. Its initial focus was to help countries coordinate a collective response to major disruptions in oil supply.

**Statement 2 is not correct:** India is not a full member of the IEA; it is an associate member since 2017.

**Statement 3 is correct:** Membership in the Organisation for Economic Co-operation and Development (OECD) is a prerequisite for IEA membership.

8. (b)

#### Context

- External Affairs Minister S Jaishankar and his UAE counterpart Sheikh Abdullah bin Zayed Al Nahyan co-chaired the 15th India-UAE Joint Commission Meeting (JCM).

**UAE and India relations**

- **Defence cooperation:** The **Desert Cyclone exercise 2024**, marked a milestone in military cooperation.
- **Education:** Following the inauguration of the **IIT-Delhi campus in Abu Dhabi**, both sides reviewed progress on establishing overseas campuses of IIM-Ahmedabad and Indian Institute of Foreign Trade in Dubai.

**9. (a)**

India and France signed a Memorandum of Understanding (MoU) for the development of the new National Museum named Yuga Yugeen Bharat National Museum.

- The project is an integral part of the **Central Vista Redevelopment Project** and is set to be developed at the North and South Blocks of Parliament.
- **Features:**
  - It will be developed through **Adaptive Reuse**, in collaboration with France, renowned for its expertise.
  - Its development will renew the historic North and South Blocks, **preserving their unique architectural features**.
  - It is expected to be the **largest museum in the world**, surpassing **The Louvre in Paris, which is the world's biggest**.
- **The project will be implemented in two phases.**
  - The first phase will involve retrofitting the North Block into a museum space, with a targeted completion by 2026.

**10. (c)**

The Phewa Dialogue is a recent initiative between Nepal and China aimed at fostering regional cooperation and dialogue. It's named after Phewa Lake, a famous and scenic lake in the Pokhara Valley of Nepal, where the inaugural dialogue was held.

**11. (a)**

**Statement 1 is correct:** BIMSTEC is a regional organization that brings together countries from **South Asia and Southeast Asia**. The main objective of BIMSTEC is to promote economic cooperation, trade, and development in the Bay of Bengal region.

**Statement 2 is not correct:** The founding members of BIMSTEC were Bangladesh, India, Sri Lanka, and Thailand. Myanmar joined later. **Neither China nor Pakistan** is a member of BIMSTEC.

**12. (b)**

**Statement 1 is correct:** The ADB does provide loans, technical assistance, and equity investments to support the development of its member countries.

**Statement 2 is not correct:** While the majority of ADB members are from the Asia-Pacific region, it also includes members from outside the region, such as the United States, Canada, and several European countries.

**Statement 3 is correct:** India is one of the founding members of the ADB. It played a key role in the establishment of the bank in 1966.

**13. (b)**

**Statement 1 is not correct:** H-1B visa allows **American employers to hire non-immigrant workers** in specialty occupations that require a high level of skills and at least a bachelor's degree.

- Under it **temporary employment of qualified individuals is facilitated**, who are not otherwise authorised to work in the United States.
- **Visas Issued:** The US government has capped the total number of new H-1B visas at 65,000 each financial year.
  - Another 20,000 visas can be given to those who have obtained a Master's degree or higher from a US institution.

**Statement 2 is correct: Majority Holders: Indians have been the majority of H-1B visa-holders in the past few years.**

- In the fiscal year 2023, Indians accounted for 72.3% (2.79 lakh) of the total (3.86 lakh) H-1B approvals.

#### 14. (d)

**In News:** Recently, the interim government of Bangladesh, led by Nobel laureate Muhammad Yunus, formally requested India to extradite Sheikh Hasina to face charges of conspiracy, genocide, and crimes against humanity.

- India's extradition process is governed by the **Extradition Act of 1962**, which provides the legal basis for extradition requests.
- It outlines the procedures for both requesting and granting extradition, ensuring that the process is transparent and adheres to international standards.
- India has signed bilateral extradition treaties with numerous countries including those with the Afghanistan (2016), United States (1997), Canada (1987), Mauritius (2003), Saudi Arabia (2010), the United Kingdom (1992), Canada, and Bangladesh (2013, amended in 2016), and others facilitating the extradition of individuals accused or convicted of serious crimes.

#### 15. (d)

**In News :** A recent study by The Azadi Project and Refugees International highlighted "gross violations of constitutional and human rights" regarding the detention of Rohingya refugees in India.

**Statements 1 and 2 are not correct :** India is not a signatory to the 1951 Refugee Convention and other human rights treaties like the Convention against Torture.

- India uses the Foreigners Act, 1946, and the Passport Act, 1967 to regulate the presence of foreigners and considers Rohingya refugees as "illegal migrants."
- India is a party to the **International Covenant on Civil and Political Rights (ICCPR)**, which obligates member states to refrain from deporting individuals to places where they may face torture or cruel treatment.
- **India has also ratified other international instruments**, such as the Convention on the Elimination of All Forms of Racial Discrimination and the Convention on the Rights of the Child, which enshrine the principle of non-refoulement.
  - Though India has signed the Convention Against Torture, it has not ratified it, meaning its provisions are non-binding.

■■■■



# SCIENCE & TECHNOLOGY

1. With reference to the Biofortification, consider the following statements:
  1. It focuses on improving traits like yield, resilience, or growth characteristics of the crops.
  2. It is regarded as the most sustainable approach to alleviate malnutrition.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 HIV (Human Immunodeficiency Virus)?
  - (a) It attacks the immune system by targeting red blood cells.
  - (b) AIDS (Acquired Immunodeficiency Syndrome) is the most advanced stage of HIV infection.
  - (c) It can also be passed from mother to child.
  - (d) It can be prevented and managed with antiretroviral therapy (ART).
3. Which of the following statements regarding Extrachromosomal DNA (ecDNA) is/are correct?
  1. ecDNA is circular DNA that exists independently of the chromosomal DNA in the nucleus.
  2. ecDNA formation is often associated with DNA damage, such as chromothripsis, or errors during DNA replication.
  3. ecDNA is found only in a few cancer types, such as breast cancer and liposarcomas.
  4. The amplification of oncogenes on ecDNA can promote tumor growth and contribute to drug resistance in cancer cells.Select the correct answer using the code below:
  - (a) 1, 2, and 4 only
  - (b) 2, 3, and 4 only
  - (c) 1, 3, and 4 only
  - (d) 1, 2, 3, and 4
4. With reference to the Marburg virus disease (MVD), consider the following statements:
  1. It does not spread among humans through human-to-human transmission.
  2. Currently, there are no approved vaccines or specific treatments for MVD.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. PROBA-3 mission, recently seen in the news, is related to the study of which of the following?
  - (a) Earth's magnetic field
  - (b) Lunar surface exploration
  - (c) Atmosphere of Venus
  - (d) The Sun's corona
6. What is a key advantage of using Gait Analysis in forensic investigations?
  - (a) It can identify individuals even when facial recognition fails.
  - (b) It provides real-time information on a suspect's location.

- (c) It determines the exact time of a suspect's presence at a crime scene.
- (d) It helps in decoding communication patterns of criminals.

7. 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.
2. It is contagious and there is no cure for Silicosis.

Which of the statements given above is/are correct?

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

8. With reference to the Tuberculosis (TB), consider the following statements:

1. India has the highest TB burden in the world.
2. India has a target of eliminating TB 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

9. Malaria is primarily caused by which of the following?

- (a) Bacteria
- (b) Virus
- (c) Plasmodium protozoa
- (d) Fungi

10. Which of the following statements is/are correct regarding Haemophilia?

1. It is a rare genetic disorder that impairs the body's ability to control blood clotting.
2. Haemophilia A is caused by a deficiency of clotting Factor VIII.
3. India has the world's largest number of haemophilia patients.
4. Gene therapy offers a potential one-time solution for haemophilia, unlike traditional treatments that require frequent injections.

Select the correct answer using the code given below:

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

11. Consider the following statements regarding Malaria:

1. It is caused by a virus transmitted through the bites of infected female Anopheles mosquitoes.
2. *P. falciparum* and *P. vivax* are the two Plasmodium species that pose the greatest threat to humans.
3. The first WHO-approved malaria vaccine was RTS,S/AS01, approved in 2021.
4. Malaria is predominantly found in temperate regions with cold climates.

Which of the statements given above are correct?

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

12. With reference to the Google's Willow Chip, consider the following statements:

1. It operates using superconducting transmon qubits.
2. To maintain quantum states, the qubits are heated to temperatures just above 100 degrees Celsius.

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.** With reference to Disease X, which of the following statements is/are correct?

1. The term Disease X was first used by the World Health Organization (WHO) in 2018.
2. It refers to a specific, identified virus that has already caused a global pandemic.

Select the correct answer using the code given below:

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

**14.** Consider the following statements about cryogenic fuels:

1. Liquid hydrogen is commonly used as fuel, and liquid oxygen is used as an oxidizer.
2. Cryogenic engines are more efficient but technically more challenging to develop than solid or liquid fuel engines.
3. ISRO's GSLV Mark III uses a cryogenic engine in its upper stage.

Which of the statements given above is/are correct?

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

**15.** With reference to Diabetes, consider the following statements:

1. It occurs when the body either doesn't produce enough insulin or doesn't effectively use the insulin it produces.
2. In India, the prevalence of Type 1 diabetes is high.

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.** Which of the following is NOT true about Malaria?

- (a) The World Health Organization (WHO) certifies a country as malaria-free when it has achieved at least five consecutive years of zero indigenous cases.
- (b) In 2023, India accounted for half of all estimated malaria cases in the WHO South-East Asia Region.
- (c) It is caused by plasmodium protozoa.
- (d) It is primarily transmitted through the bite of infected Anopheles mosquitoes.

**17.** Idiopathic Pulmonary Fibrosis (IPF), recently seen in the news, is a disease of which part of the body?

- (a) Heart (b) Liver  
(c) Lungs (d) Kidneys

**18.** What is the key property of diamond that makes it suitable for cooling technology?

- (a) High electrical conductivity (b) High optical reflectivity  
(c) High tensile strength (d) High thermal conductivity

**19.** With reference to the Manganese, which of the following statements is/are correct?

1. It is the second most abundant metal on earth.
2. It plays a vital role in maintaining body homeostasis by supporting metabolic processes.

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 black holes, consider the following statements:

1. It does not have a surface, like a planet or star. Instead, it is a region of space where matter has collapsed in on itself.
2. Sagittarius A\* is the nearest supermassive black hole from the Earth.

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.** Hydroxymethanesulphonate (HMS) is classified as:

- (a) A primary aerosol formed by natural processes.  
(b) A secondary aerosol formed by chemical reactions.  
(c) A greenhouse gas contributing to global warming.  
(d) A naturally occurring mineral compound.

**22.** What are Mirror Bacteria recently discussed in scientific research?

- (a) Bacteria that produce energy through photosynthesis like plants.  
(b) Bacteria that form a unique reflective layer on aquatic surfaces.  
(c) Hypothetical microbes with a reversed molecular chirality compared to Earth's known life forms.  
(d) Genetically engineered bacteria for creating mirrors in scientific instruments.

**23.** With reference to the BioE3 Policy 2024, consider the following statements:

1. It necessitates mixing of ethanol into gasoline up to 20%.
2. It aims to accelerate technology development and commercialization by establishing Biomanufacturing and Biofoundry.

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 is a primary use of GLP-1 Receptor Agonists?

1. Managing type 2 diabetes
  2. Promoting weight loss in obesity treatment
  3. Treating cardiovascular diseases
- (a) 1 only (b) 1 and 2 only  
(c) 1, 2, and 3 (d) 2 and 3 only

**25.** Consider the following statements with reference to "Kisan Kavach":

1. It is India's first anti-pesticide bodysuit designed to protect farmers from harmful pesticide exposure.
2. It was developed by the National Institute of Agricultural Sciences.
3. It deactivates harmful pesticides through nucleophilic mediated hydrolysis.

Which of the statements given above is/are correct?

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

26. Consider the following statements:

1. Moon has 1/3rd of the gravity as compared to Earth.
2. The moon has a very thin atmosphere known as the exosphere.

Which of the statements given above is/are correct?

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

27. With reference to the Marburg Virus Disease, consider the following statements:

1. It is a highly contagious viral disease with a low fatality ratio.
2. The Marburg Virus natural host is fruit bats.

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. Why is there a growing need for quantum satellites in modern communication systems?

- (a) They can replace existing satellites to reduce costs.
- (b) They enable faster data speeds compared to fiber optics.
- (c) They improve global positioning system (GPS) accuracy.
- (d) They address the threat posed by quantum computers to current cryptographic systems.

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

1. Mitochondria are cellular powerhouses responsible for Adenosine Triphosphate (ATP) synthesis.
2. Individuals inherit their mitochondria only via the mother's egg.

Select the correct answer using the code given below:

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

30. With reference to State of Polio Eradication, which of the following statements is/are correct?

1. The World Health Organization (WHO) certified India as polio-free in 2015.
2. Pakistan and Afghanistan are the only countries in the world where polio remains endemic.

Select the correct answer using the code given below:

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

31. With reference to Helicobacter pylori, consider the following statements:

1. It is a gram-negative spiral-shaped bacterium.
2. It infects over 43% of the global population.
3. It is the most important cause for gastric carcinoma.
4. Transmission of H. pylori can occur via the fecal-oral and sexual routes.

Which of the statements given above are correct?

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

32. Ensuring the quality of generic medicines in India is vital to make them affordable and effective as innovator drugs. In context of the above statement, which of the following committees have called for centralized oversight of drug regulation?

1. Bhatia
2. Hathi
3. Mashelkar

Select the correct answer using the code given below:

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

33. Consider the following statements with respect to Parker Solar Probe

1. It was developed as part of the European Space Agency's Living With a Star program.
2. In 2014, it became the first spacecraft to fly through the Sun's corona.

Which of the statements given above is/are correct?

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

34. With reference to Space Docking Experiment (SpaDEX), consider the following statements:

1. It is a joint mission of NASA and Indian Space Research Organisation (ISRO).
2. It consists of two small spacecraft to be launched by PSLV-C60 into a 470 km circular orbit.

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

35. Which of the following countries have successfully mastered spacecraft docking technology?

1. United States of America
2. France
3. Russia
4. China
5. Japan

Select the correct answer using the code given below:

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

### EXPLANATIONS

1. (b)

**Statement 1 is not correct:** Biofortified crops are those that have been specially bred to have higher levels of essential nutrients, such as vitamins, minerals, or amino acids, than their conventional counterparts.

- This is done through traditional breeding techniques, genetic modification, or modern biotechnological methods.
- **Aim:** It aims to improve the nutritional value of crops, especially in regions where deficiencies in essential nutrients are widespread.
- **Hybrid crops focus on improving traits** like yield, resilience, or growth characteristics by crossbreeding different varieties.

**Statement 2 is correct:** It is regarded as the most sustainable approach to alleviate malnutrition.

- It provides nutrients in natural form.



2. (a)

**Context:** World AIDS Day 2024 highlights the ongoing fight against HIV/AIDS, emphasizing progress, challenges, and the need for continued action.

**About HIV (Human Immunodeficiency Virus)**

- It attacks the immune system by targeting **white blood cells**, making the body more vulnerable to infections and diseases.
- AIDS (Acquired Immunodeficiency Syndrome) is the most advanced stage of HIV infection.
- HIV is transmitted through body fluids such as blood, breast milk, semen, and vaginal fluids, but not through casual contact like kisses or hugs. It can also be passed from mother to child.
  - HIV can be prevented and managed with antiretroviral therapy (ART).

3. (a)

**In News:** Studies reveal how ecDNA drives cancer progression and drug resistance.

**Statement 1 is correct:** ecDNA is indeed circular DNA that exists independently in the nucleus, separate from the chromosomal DNA.

**Statement 2 is correct:** ecDNA formation is associated with DNA damage (such as chromothripsis) or errors during DNA replication.

**Statement 3 is not correct:** ecDNA is found in up to 90% of certain tumor types, not just a few, including brain tumors, liposarcomas, and breast cancers.

**Statement 4 is correct:** The amplification of oncogenes on ecDNA can promote tumor growth and contribute to drug resistance in cancer cells.

4. (b)

**Context:** An outbreak of deadly Marburg virus disease (MVD), often referred to as the 'bleeding eye disease,' has killed at least 15 people and infected at least 66 in Rwanda, Africa.

**About: MVD (formerly known as Marburg haemorrhagic fever)**

- **Ebola's lesser-known twin:** Marburg belongs to the **filovirus family**, like the much better known Ebola. Both pathogens are clinically similar, and although rare, can cause outbreaks with high fatality rates.
- **Region:** The **first recognised** MVD outbreak occurred in the town of **Marburg (Germany)** in 1967. Since then, subsequent outbreaks have been mostly reported across Africa, most recently in **Tanzania, Ghana, and now Rwanda**.
- **Natural host and transmission :** Rousettus aegyptiacus, a **fruit bat** of the Pteropodidae family, is considered the natural host of Marburg virus. This virus is transmitted to people from fruit bats and spreads among humans through **human-to-human transmission**.
- **Symptoms:** Severe headache, fever, watery diarrhea, abdominal pain, and **bleeding from various sites**, including the eyes, nose, gums, and vagina.
- **Test and treatment:** : Confirmation of the Marburg virus is done either by **ELISA** or by **RT-PCR tests**. Currently, there are **no approved vaccines** or specific treatments for this virus; only supportive treatment is provided.

5. (d)

**Context:** ISRO successfully launched European Space Agency (ESA)'s Proba-3 mission from Sriharikota, marking a major collaboration.

**About PROBA-3 Mission (Project for Onboard Autonomy)**

- **Scientific Goals:**

- Advance understanding of solar storms and coronal mass ejections that affect Earth's satellite operations, communication systems, and power grids.
- Provide critical data for solar dynamics and space weather phenomena.
- Test new spacecraft technologies and concepts.
- Enhancing expertise in solar science following ISRO's Aditya-L1 mission.
- **Spacecraft:** The mission uses two spacecraft:
  - **Coronagraph:** Studies the Sun's corona.
  - **Occulter:** Blocks the Sun to create artificial eclipses for better observation.

6. (a)

#### Context

- Kolkata Police recently utilized gait analysis to apprehend a suspect in a heinous crime, identifying him through CCTV footage that revealed a distinct limp.

#### What is Gait Analysis?

- Gait analysis is the **study of human motion patterns**, particularly walking or running, to assess body movements, mechanics, and muscle activity.
- It involves **visual observation, sensors, and advanced technologies** like optical marker-based frameworks to evaluate gait abnormalities.
- Gait analysis is particularly useful when a suspect's face is not clearly visible in CCTV footage or when masks and low lighting obscure identification.
- Gait patterns are unique to individuals and difficult to disguise.

7. (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.

**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.

8. (a)

**Statement 1 is correct: India's TB Burden:** India, with the highest TB burden globally, recorded 2.8 million cases in 2023.

- India alone accounted for **26% of global cases and 29% of global TB deaths** (315,000 deaths).
- India is followed by Indonesia (10%), China (6.8%), the Philippines (6.8%), and Pakistan (6.3%).

**Statement 2 is not correct: India's goal is to eliminate tuberculosis (TB) by 2025**, five years ahead of the **global target of 2030**.

9. (c)

#### What is Malaria?

- **Malaria** is a life-threatening disease spread to humans by some types of mosquitoes. It is mostly found in tropical countries.
- **Transmission:** It is caused by **plasmodium protozoa**. The plasmodium parasites spread through the bites of infected female Anopheles mosquitoes. Blood transfusion and contaminated needles may also transmit malaria.

- **Types of parasites:** There are 5 Plasmodium parasite species that cause malaria in humans and 2 of these species – **P. falciparum** and **P. vivax** – pose the greatest threat. The other malaria species which can infect humans are **P. malariae**, **P. ovale** and **P. knowlesi**.
  - **P. falciparum is the deadliest malaria parasite** and the most prevalent on the African continent. **P. vivax** is the dominant malaria parasite in most countries outside of sub-Saharan Africa.

10. (c)

**Statement 1 is correct:** Haemophilia is a genetic bleeding disorder that affects the blood's ability to clot.

**Statement 2 is correct:** Haemophilia A, the most common type, is caused by a deficiency of clotting Factor VIII.

**Statement 3 is not correct:** While India has a significant number of haemophilia patients, it has the world's second-largest patient pool, not the largest.

**Statement 4 is correct:** Gene therapy holds the potential to provide a one-time solution for haemophilia by introducing a functional copy of the faulty gene, unlike traditional treatments that require regular injections of clotting factors.

11. (b)

**Statement 1 is not correct:** Malaria is caused by a parasite (Plasmodium), not a virus.

**Statement 2 is correct:** **P. falciparum** and **P. vivax** are the two most dangerous species of Plasmodium.

**Statement 3 is correct:** RTS,S/AS01 was the first malaria vaccine approved by the WHO in 2021.

**Statement 4 is not correct:** Malaria is prevalent in tropical and subtropical regions, not temperate regions with cold climates.

12. (a)

**Statement 1 is correct:** Willow operates using **superconducting transmon qubits**—tiny electrical circuits exhibiting quantum behaviour at extremely low temperatures.

- These circuits are engineered to function like artificial atoms in a quantum state.

**Statement 2 is not correct:**

- To maintain these delicate quantum states, the qubits are cooled to temperatures just above absolute zero.
- This minimises vibrations and other disturbances that could disrupt the qubits and introduce errors in calculations.

13. (a)

**Context:** The recent outbreak reported in the Democratic Republic of Congo, which remains unclassified, has raised concerns that it could be an instance of Disease X.

**About: Disease X**

- It is **not real** and represents a **hypothetical, unknown pathogen** that could cause a future epidemic.
- The name was adopted by the **World Health Organization (WHO) in 2018** on their shortlist of **blueprint priority diseases** to ensure that their planning was sufficiently flexible to adapt to an **unknown pathogen**.
- Disease X could also be **zoonotic** meaning that it could be caused by germs jumping from animals to humans.

14. (d)

**Statement 1 is correct:** Liquid hydrogen is a very common fuel for cryogenic engines, and liquid oxygen is the standard oxidizer. They provide a very high specific impulse (a measure of efficiency).

**Statement 2 is correct:** Cryogenic engines are more efficient than solid or liquid fuel engines because the propellants expand greatly when burned, providing more thrust. However, they are much more complex to develop due to the extremely low temperatures involved and the challenges of handling cryogenic fuels.

**Statement 3 is correct:** The Geosynchronous Satellite Launch Vehicle (GSLV) Mark III, India's most powerful launch vehicle, uses a cryogenic engine (the CE-20) in its upper stage. This engine is crucial for placing heavier payloads into geostationary orbit.

15. (a)

**Statement 1 is correct:** Diabetes is a **chronic medical condition** where the body has trouble regulating **blood sugar (glucose) levels**.

- It occurs when the body either **doesn't produce enough insulin** (a hormone that helps regulate blood sugar) or doesn't effectively use the insulin it produces.
- **There are two main types:**
  - **Type 1 Diabetes:** The body doesn't produce insulin at all, and it typically develops in childhood or adolescence.
  - **Type 2 Diabetes:** The body doesn't use insulin properly (insulin resistance), often due to lifestyle factors, and usually develops in adults.

**Statement 2 is not correct: Prevalence of Diabetes:**

- Approximately 77 million people in India are affected by diabetes, and this number is expected to rise in the coming years due to factors like urbanization, sedentary lifestyles, poor dietary habits, and genetic predisposition.
- The prevalence of **Type 2 diabetes is particularly high**, especially among older adults, and is also increasingly affecting younger people.

16. (a)

**Context**

- According to the **World Malaria report**, released by the **World Health Organization (WHO)**, India has seen significant progress in reducing malaria incidence and mortality rates.

**Key Facts**

- The World Health Organization (WHO) certifies a country as malaria-free when it has achieved at **least three consecutive years** of zero indigenous cases.
- In 2023, India accounted for half of all estimated malaria cases in the WHO South-East Asia Region.
- It is caused by plasmodium protozoa.
- It is primarily transmitted through the bite of infected Anopheles mosquitoes.

17. (c)

**Context:** Tabla maestro Zakir Hussain passed away in the United States while receiving treatment for Idiopathic Pulmonary Fibrosis (IPF).

**About: Idiopathic pulmonary fibrosis (IPF)**

- It is a serious chronic (long term) disease that affects the tissue surrounding the air sacs, or alveoli, in the **lungs**.

- This condition develops when that lung tissue becomes thick and stiff for unknown reasons.
- Over time, these changes can cause permanent scarring in the lungs, called fibrosis, that makes it progressively more difficult to breathe.
- The most common symptoms of IPF are shortness of breath and cough. There is currently **no cure** for IPF.

18. (d)

#### What is Diamond Cooling Technology?

- The technology involves using diamond, the **most thermally conductive material** known, to manage and **dissipate heat** in electronic devices.
- Diamonds efficiently **pull heat away** from critical components, improving performance and **energy efficiency**.
- This advanced cooling mechanism outperforms conventional cooling systems, such as bulky heat sinks or liquid cooling, enabling **compact designs and sustainable operation**.

19. (b)

#### Context

- A recent study highlighted that Manganese (Mn) contamination of water is causing cancer in the Gangetic plains of Bihar.

#### About

- **Manganese** is the **fifth-most abundant metal** on earth that exists in the form of oxides, carbonates and silicates.
  - It is a **hard, brittle, silvery metal** and is present in food, water, soil, and rock as a naturally occurring component.
- **Essential Trace Element:** Manganese plays a vital role in maintaining body homeostasis by supporting metabolic processes, enzyme functions, and bone health.
- **Toxicity Concerns:** Excess consumption can cause severe health issues, including neurological disorders and cancer.
  - According to the **Bureau of Indian Standards (BIS)**, the acceptable limit for manganese in drinking water is **0.1 milligrams per liter (mg/L)**, and the permissible limit is **0.3 mg/L**.

20. (c)

**Both the statements are correct:** A black hole is an extremely dense object whose gravity is so strong that nothing, not even light, can escape it.

- It does not have a surface, like a planet or star. Instead, it is a region of space where **matter has collapsed in on itself**.
  - This catastrophic collapse results in a **huge amount of mass being concentrated in an incredibly small area**.
- **Sagittarius A\*:** Sagittarius A\* is more than 25,000 light years from Earth – nearest supermassive black hole, with an estimated mass millions of times that of the Sun.
  - Often abbreviated by researchers to Sgr A\* (pronounced “Sagittarius A star”), it sits in the constellation of Sagittarius at the heart of the Milky Way.

21. (b)

#### Hydroxymethanesulphonate (HMS)

- **Hydroxymethanesulphonate (HMS)** is a harmful component and its formation, previously thought to occur only in clouds and fog.

- But recently it is found to occur in **aerosols** during winter, when **sulfur dioxide and formaldehyde react** in the presence of liquid water.
- **Acidity Shift:** The acidity of PM<sub>2.5</sub> changes rapidly in winter, due to the concentration of sulphate and ammonium ions, making conditions more favorable for HMS production.
- **Effect of the 2022 Fuel Ban:** The ban on high-sulfur fuel led to a relative increase in ammonium ions in PM<sub>2.5</sub>, lowering the acidity and encouraging the formation of HMS.

22. (c)

Synthetic organisms created with molecular structures that are the mirror image of those found in natural life forms. Chirality refers to the property of asymmetry in molecular structures. All known life forms possess specific handedness in their molecules. DNA and RNA consist of “right-handed” nucleotides, while proteins are composed of “left-handed” amino acids. This handedness is crucial for molecular interactions and biological functions.

23. (b)

**Statement 1 is not correct:** The **BioE3 (Biotechnology for Economy, Environment, and Employment) Policy 2024** aimed at leveraging biotechnology to foster economic growth, environmental sustainability, and job creation.

- It aligns with India's broader sustainable development and technological advancement goals.

**Statement 2 is correct:** The **BioE3 Policy** aims to accelerate technology development and commercialization by **establishing Biomanufacturing & Bio-AI hubs and Biofoundry**.

- These hubs are aimed to serve as centers of excellence for cutting-edge innovations in biotechnology, fostering collaboration between academia, industry, and government.

24. (b)

GLP-1 Receptor Agonists is a class of medicines that mimic the Glucagon-Like Peptide-1 (GLP-1) hormone. It regulates appetite and blood sugar levels by enhancing insulin secretion and reducing glucagon release. Examples of GLP-1 Receptor Agonists:

**Semaglutide:** Sold under the brand names Ozempic and Wegovy.

**Tirzepatide:** An advanced GLP-1 drug showing significant weight loss results in trials.

25. (c)

**Context:** The Union Minister of State for Science and Technology launched “Kisan Kavach”.

**About “Kisan Kavach”**

- It is **India's first anti-pesticide bodysuit** designed to protect farmers from harmful pesticide exposure.
- **Development:** Kisan Kavach was developed by **BRIC-inStem, Bangalore**, in collaboration with **Sepio Health Pvt. Ltd.**
- **Technology:** The suit uses advanced fabric technology that deactivates harmful pesticides upon contact through **nucleophilic mediated hydrolysis**, providing protection against pesticide toxicity.
- **Affordability:** The bodysuit is priced at ₹4,000, lasts up to a year, and is washable and reusable.

26. (b)

**Statement 1 is not correct: Size:** The Moon is about 1/4th the size of Earth, with a diameter of 3,474 km.



- **Gravity: 1/6th that of Earth's**, which is why astronauts appear to float or move in slow motion.

**Statement 2 is correct:** The Moon has a very thin and weak atmosphere, called an exosphere. It does not provide any protection from the Sun's radiation or impacts from meteoroids.

27. (b)

**Statement 1 is not correct:** The disease is named after **Marburg, the German city** where scientists became ill with the disease's first known cases in **1967**, while handling **monkeys imported from Uganda**.

- It is a **highly contagious virulent disease** that causes hemorrhagic fever, with a **fatality ratio of up to 88%**.

**Statement 2 is correct: Host and Spread:** Marburg's natural host is a **fruit bat**, but it can also infect **primates, pigs and other animals**.

- Human outbreaks start after a person has contact with an infected animal.

28. (d)

**Context**

- The chairman of the Mission Governing Board of the National Quantum Mission (NQM) recently announced India's plans to launch a quantum satellite in 2-3 years to enable quantum communications.

**What is a quantum satellite?**

- A quantum satellite is a communications satellite leveraging the **principles of quantum physics** to secure data transmissions.
- **Significance:** The emergence of quantum computers poses a threat to existing cryptographic systems.
  - Quantum satellites aim to ensure secure communications by employing quantum cryptography particularly **Quantum Key Distribution (QKD)**

**How Are Messages Secured in Quantum Communication?**

- **Quantum Measurement:** Measuring a quantum system (like photons) alters its state.
  - If an eavesdropper intercepts a quantum key encoded in photons, their actions will disturb the photons, alerting the sender and receiver to a breach.
- **Quantum Entanglement:** Entangled particles remain connected such that a change to one particle instantaneously affects the other, ensuring that any interception is immediately detectable.

29. (c)

**Context:** Researchers have found that deletion mutations and aberrant expression of mitochondrial genome (mtDNA) correlated with biological aging in humans, offering potential to delay mitochondrial decline.

**What are mitochondria?**

- Mitochondria are cellular powerhouses responsible for **Adenosine Triphosphate (ATP)** synthesis, the energy currency of cells.
  - mtDNA encodes only a small subset of proteins required for mitochondrial function.
  - And their dysfunction plays a key role in aging.
    - ♦ Age-related deletion mutations in mitochondrial DNA (mtDNA) contribute to a decline in mitochondrial function, particularly in muscle cells.

- Many more mitochondrial proteins are encoded by the nuclear genome, and enter the mitochondria after they are made in the part of the cell lying outside the mitochondria and the nucleus (i.e. the cytoplasm).
  - Individuals inherit their mitochondria **only via the mother's egg**.

## 30. (b)

**Context:** WHO has reported that Poliovirus had been detected through routine surveillance of wastewater systems in five countries: Finland, Germany, Poland, Spain, and the United Kingdom since September this year.

**State of Polio Eradication**

- **Eradication: Type 2** wild poliovirus was declared eradicated in **September 2015** and **Type 3** wild poliovirus was declared eradicated in October 2019.
  - **Only type 1** wild poliovirus remains.
- **The WHO South-East Asia Region** was declared free of poliovirus in **2014** and the **WHO African Region** was certified free of wild poliovirus (WPV) in **2020**.
  - **India** was certified polio-free in **March 2014** and continues to be so.
- According to the WHO, **Pakistan and Afghanistan** are the only countries in the world where polio remains endemic.

## 31. (d)

**In News:** Researchers have developed a cost-effective **point-of-care diagnostic service, FELUDA**, for detecting **H. pylori** and its antibiotic resistance mutations in rural areas of India with limited access to diagnostic labs.

**Statements 1, 2, 3 and 4 are correct:** H. pylori is a gram-negative, microaerophilic bacterium that infects humans, typically residing in the stomach.

- It causes inflammation and ulceration of the stomach lining, leading to gastrointestinal issues.
  - It is the leading cause of chronic gastritis, peptic ulcers, gastric lymphoma, and gastric cancer.
- **Transmission** occurs through fecal-oral, gastric-oral, oral-oral, or sexual routes, with lower socioeconomic status being a significant risk factor for higher infection prevalence.
- H. pylori infects over 43% of the global population and causes gastrointestinal disorders like peptic ulcers, gastritis, dyspepsia, and even gastric cancer.

## 32. (d)

**Generic drugs** are marketed under a non-proprietary or approved name rather than a proprietary or brand name.

- Generic drugs are equally effective and inexpensive compared to their branded counterparts.
- Generic drugs are crucial for **making healthcare affordable**, especially in countries with significant income disparities.
- They are bioequivalent to branded drugs and **offer cost-effective alternatives**.
- India uses **economies of scale** and **low production costs** to supply affordable generic medicines both domestically and internationally.
- **Economic Impact of Generic Medicines:** In 2021-22, out-of-pocket healthcare expenditure was 39.4% of total health expenditure in India. Centralized oversight is crucial to implement stringent regulations and safeguard public health.

- **Committees like Bhatia (1954), Hathi (1975), and Mashelkar (2003)** have also called for centralized control over drug regulation to improve drug quality and public confidence in generics.

33. (d)

NASA scientists announced that the Parker Solar Probe survived the closest-ever approach to the Sun.

**Statements 1 and 2 are not correct :** Parker Solar Probe was developed as part of **NASA's Living With a Star program**, which aims to explore the Sun-Earth system and its impact on life and society.

- The program is managed by **NASA's Goddard Space Flight Center in Maryland**.
- The mission is named in honor of **Dr. Eugene N. Parker**, who **first proposed the theory of the solar wind in the 1950s** and revolutionized solar science.
- On Dec. 14, 2021, Parker **became the first spacecraft to fly through the Sun's corona, sampling particles and magnetic fields**.
- Parker Solar Probe aims to revolutionize our understanding of the Sun by studying its atmosphere, the solar wind, and the heating of the corona.

34. (b)

**Statement 1 is not correct :** SpaDeX is a new mission by the **Indian Space Research Organisation (ISRO)** aimed at demonstrating in-space docking and undocking technologies.

**Statement 2 is correct :** **SpaDeX** aims to develop and demonstrate the technology needed for rendezvous, docking, and undocking of two small spacecraft (SDX01, which is the Chaser, and SDX02, the Target, nominally) in a low-Earth circular orbit.

- Each satellite weighing 220 kg, will be launched together on the PSLV C60 rocket into a **470-km orbit with a 55° inclination**.

35. (b)

**[SOL]** ISRO will launch the Space Docking Experiment (SpaDEX). If successful, SpaDEX will make India the fourth country to achieve in-space docking.

- Only the **US, Russia, and China** have mastered such advancements so far.
- **The primary goal** is to complete the docking manoeuvre, followed by secondary objectives like power transfer between the spacecraft, composite spacecraft control, and payload operations post-undocking.
- **Importance:** The mission is vital for India's space goals like Chandrayaan-4, Moon sample return, and the Bharatiya Antariksh Station (BAS).

■■■■

# ENVIRONMENT & ECOLOGY

1. With reference to Wroughton's Free-Tailed Bat, which of the following statements is/are correct?
1. The species is found mainly in the Western Ghats of India.
  2. It is listed as Least Concerned under the IUCN Red List of Threatened Species.
- Select the correct answer using the code given below:
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
2. With reference to the Champions of the Earth award, consider the following statements:
1. Launched in 2005, it is the United Nations highest environmental honour.
  2. The award is presented in five categories, and Prime Minister Narendra Modi is the sole Indian recipient of this honor.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
3. Which of the following agreements were established at the 1992 Earth Summit?
1. The UN Convention to Combat Desertification (UNCCD).
  2. The Convention on Biological Diversity (CBD).
  3. The Minamata Convention on Mercury.
- Select the correct answer using the code given below:
- (a) 1 only (b) 3 only  
(c) 1 and 2 only (d) 2 and 3 only
4. The most important strategy for the conservation of biodiversity together with traditional human life is the establishment of:
- (a) Biosphere Reserves (b) Botanical Gardens  
(c) National Parks (d) Wildlife Sanctuaries
5. Ratapani Tiger Reserve has been notified as the 57th Tiger Reserve of India. It is located in;
- (a) Chhattisgarh (b) Rajasthan  
(c) Madhya Pradesh (d) West Bengal
6. With reference to the Indian Star Tortoise (*Geochelone elegans*), consider the following statements:
1. It is herbivorous and only found in India.
  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

7. *Dulcibella camanchaca*, recently discovered in the Atacama Trench, is significant because:
- It is the deepest-living marine mammal discovered.
  - It represents a new genus and highlights the trench's biodiversity hotspot.
  - It is the first organism to survive entirely without food in deep-sea habitats.
  - It is a deep-sea plant that generates oxygen in the trench environment.
8. With reference to the Shortfin Mako Shark, consider the following statements:
- It is the fastest shark and is one of the fastest fishes on the planet.
  - It is listed as Vulnerable in the IUCN Red list of Threatened species.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
9. With reference to the Western Ghats, which of the following statements is/are correct?
- Also known as the Sahyadri Range, it extends across six Indian states.
  - It was declared as a World Heritage Site in 2012 by UNESCO.
- Select the correct answer using the code given below:
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
10. With reference to the Olive ridley turtles (*Lepidochelys olivacea*), consider the following statements:
- Odisha is the largest mass nesting site for Olive Ridleys in the world.
  - It is listed as critically endangered on the IUCN Red List of Threatened Species.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
11. With reference to the Miyawaki Plantation method, consider the following statements:
- It is a technique to create dense, multi-layered forests with native species in a short time.
  - It involves planting saplings close together, leading to faster growth and a self-sustaining ecosystem.
  - This method is not suitable for urban areas due to its high water requirements and the need for large land areas.
- Which of the statements given above is/are correct?
- 1 only
  - 1 and 2 only
  - 2 and 3 only
  - 1, 2 and 3
12. With reference to the 'Green Hydrogen', consider the following statements:
- It is produced through a process called electrolysis using renewable energy sources only.
  - India has set an ambitious target of producing 5 million metric tonnes (MMT) of green hydrogen annually by 2030.
- Which of the above statements is / are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2

- 13.** Which of the following rivers and their tributaries serve as the habitat for the Ganges River Dolphin?
- (a) Ganga and Indus Rivers (b) Brahmaputra and Indus Rivers  
(c) Ganga and Brahmaputra Rivers (d) Godavari and Krishna Rivers
- 14.** Consider the following statements with reference to Milkweed:
1. It is the only food source for the monarch butterfly caterpillar.
  2. It is found as a wild plant in the states of Rajasthan, Karnataka and Tamil Nadu.
  3. Its use as a milkweed fibre was found in Europe during the 18th century.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only (b) 2 and 3 only  
(c) 1 and 3 only (d) 1, 2 and 3
- 15.** Consider the following statements with reference to the Northern Giant Hornet (Murder Hornet):
1. It is the largest hornet in the world, measuring up to 2 inches long.
  2. The species is native to North America and was first spotted in Washington (U.S.) in 2019.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 16.** With reference to Squirrels, consider the following statements:
1. They are widely distributed and are found in all the continents.
  2. All the squirrels are herbivores in nature.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 17.** Consider the following statements regarding the India State of Forest Report (ISFR):
1. It is published every two years by the Forest Survey of India (FSI).
  2. The first ISFR was published in 1981, the same year the FSI was established.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 18.** Cephalopods are known for their unique biological adaptations. Which of the following traits are characteristic of cephalopods?
1. Chromatophores for skin color change.
  2. Tentacles with suction cups or hooks.
  3. Chambered shells in all species.
  4. Cold-blooded nature (ectothermic).
- Select the correct answer using the code given below:
- (a) 1 and 2 only (b) 1, 2, and 4 only  
(c) 2, 3, and 4 only (d) 1, 3, and 4 only



19. With reference to Lion-tailed macaque, consider the following statements

1. It is classified as Critically Endangered species on the IUCN Red List
2. It is endemic to the Western Ghats 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 |

20. Which of the statements are correct with reference to Bald Eagle?

1. It is found only in Canada and the French island territories.
2. It is officially declared as the national bird of the United States.
3. The IUCN Red List of Threatened species classifies it as Endangered.

Select the correct answer using the code given below:

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

21. With reference to Sea Otter , a keystone species ,consider the following statements:

1. It is the smallest marine mammal.
2. It is the largest member of the weasel family.
3. It can be found in Canada and Japan.
4. It is classified as Least Concern species by IUCN

Which of the statements given above are correct?

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

22. With reference to Disaster of Severe Nature, which of the following statements is/are correct?

1. It is the catastrophic events that cause extensive loss of life, property, and environmental damage.
2. A Calamity Relief Fund (CRF) is set up, with the corpus shared 3:1 between Centre and state.

Select the correct answer using the code given below:

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

### EXPLANATIONS

1. (a)

#### Context

- Wroughton's free-tailed bat has been spotted at the Delhi Development Authority (DDA)'s Yamuna Biodiversity Park, marking a rare sighting.

#### About Wroughton's Free-Tailed Bat

- **Scientific Name:** Otomops wroughtoni.
- **Characteristics:** It has large forward-pointing ears, a naked face, and a prominent nostril pad.
  - Its fur is **dark brown** on the back, with a **white border** on the flanks and forearms.

- **Habitat:** Primarily found in the **Western Ghats**, India, with a single known breeding colony.
  - Small colonies recorded in Jaintia Hills, Meghalaya, and a single individual sighted in Cambodia.
- **Conservation Status:** It is classified as **Data Deficient** on the International Union for Conservation of Nature (IUCN) Red List.
  - **In India** the species is listed on **Schedule I** of the Wildlife (Protection) Act 1972.

## 2. (a)

**Context:** The United Nations recognised ecologist Madhav Gadgil with the annual Champions of the Earth award, the **UN's highest environmental honour**, for his seminal work in the Western Ghats, a global biodiversity hotspot.

### About: the Award

- It was launched in **2005** by the United Nations Environment Programme (UNEP).
- The award recognizes outstanding figures from the public and private sector as well as civil society, whose actions have brought about a positive impact and a transformation on the environment.
- The award is presented in **five categories** – Lifetime Achievement, Policy Leadership, Action and Inspiration, Entrepreneurial Vision and Science & Innovation.
  - Madhav Gadgil has been honoured in the **"lifetime achievement"** category.
- **Past Indian recipients:** Narendra Modi (2018), Cochin International Airport (2018) and Afroz Shah (2016).

## 3. (c)

**In News :** The 16th session of the **UNCCD Conference of Parties (COP16)** will be held from December 2-13, 2024, marking the convention's 30th anniversary.

### About the UN Convention to Combat Desertification (UNCCD).

- In 1994, 196 countries and the European Union signed the UN Convention to Combat Desertification (UNCCD).
- The **Conference of the Parties (COP)** is the decision-making body of the UNCCD, bringing together governments, businesses, and civil society to address land challenges and promote sustainability.
  - UNCCD is one of the three "Rio Conventions," along with the UN Framework Convention on Climate Change (UNFCCC) and the **Convention on Biological Diversity (CBD)**, all stemming from the 1992 Earth Summit in Rio de Janeiro.

COP16 takes place in West Asia, a region heavily impacted by desertification, drought, and land degradation. The theme is "Our Land and Our Future."

## 4. (a)

Biosphere reserves are designated areas that aim to conserve biodiversity while also promoting the sustainable use of natural resources. These reserves are specifically designed to balance conservation efforts with the needs and practices of local human communities, thus integrating both biodiversity preservation and traditional human life.

## 5. (c)

**Context:** Ratapani Tiger Reserve has been notified as the 57th Tiger Reserve of India.

### About: Ratapani Tiger Reserve

- It lies in Raisen district of **Madhya Pradesh** and the notification was issued under Section 38V of the Wildlife (Protection) Act, 1972.
- In addition to providing habitat for various mammals, birds, and reptiles, it also preserves a wealth of heritage treasures, including caves, rock paintings, and rock shelters.
- One of the most famous rock-shelters of Central India and **UNESCO World Heritage Site** Bhimbetka Rock Shelters are also part of Ratapani tiger reserve.

6. (b)

**Context:** As per the recent study, releasing confiscated **Indian Star Tortoise** back into the wild without proper scientific planning can be detrimental like they may carry diseases, have different genetic makeups or may have captive behavioral issues.

- **About Indian Star Tortoise (*Geochelone elegans*)**



- **Description:** Recognizable for its **obsidian shell with sun-yellow star patterns**.
  - **Herbivorous** and solitary; does **not** hibernate but becomes inactive in extreme weather.
  - Endemic to India and Sri Lanka, found in **arid regions of northwest India, southern India, and Sri Lanka**.
- **Conservation Status:**
  - **CITES:** Listed in Appendix I (prohibits international trade except for scientific purposes).
  - Wildlife (Protection) Act, 1972 (India): **Schedule I (highest protection)**.
  - **IUCN:** Vulnerable.

7. (b)

*Dulcibella camanchaca* is a recently discovered **amphipod in the Atacama Trench of the South Pacific Ocean**, found at a depth of 7,902 meters.

It represents a new genus, showcasing the unique and endemic biodiversity of the trench, emphasizing its status as a biodiversity hotspot.

The species is notable for its raptorial appendages, which enable it to actively prey on smaller amphipods in the food-limited habitat of the deep ocean.

The discovery highlights the importance of deep-ocean exploration in uncovering unique species and understanding life in extreme environments.

8. (a)

**Statement 1 is correct:** **Young Shortfin Mako Shark** is a large, **predatory shark** that lives in the open ocean.

- It is the **fastest shark** and is one of the fastest fishes on the planet.

**Statement 2 is not correct: Conservation Status:**

- **IUCN: Critically Endangered.**
- Appendix II species under CITES.

9. (c)

**Context:** The United Nations has awarded ecologist Madhav Gadgil the 2024 Champions of the Earth award for his seminal work in the Western Ghats.

**About**

- Western Ghats, also known as the **Sahyadri range**, is a mountain chain that spans the states of **Kerala, Tamil Nadu, Karnataka, Goa, Maharashtra, and Gujarat**.
- Western Ghats have a tropical humid climate. The western side of the Ghat receives more rainfall than the eastern side due to windward effect.
- UNESCO declared the Western Ghats a **World Heritage Site** in July 2012.

**10. (a)**

**Context:** Carcasses of Olive Ridley turtles, which are currently in their breeding season, continue to wash ashore along the Visakhapatnam coast.

**Olive ridley turtles (*Lepidochelys olivacea*)**

- It gets its name from the olive green color of its heart-shaped shell. It is among the smallest of the world's sea turtles.
- It is found throughout the world primarily in the tropical regions of the Pacific, Indian, and Atlantic oceans.
- These turtles are best known for their unique mass nesting called Arribada, where thousands of females come together on the same beach to lay eggs. **Odisha** is the largest mass nesting site for Olive Ridleys in the world.
- **Protection status:**
  - Wildlife Protection Act, 1972: Schedule 1
  - IUCN Red List: **Vulnerable**
  - CITES: Appendix I

**11. (b)**

**Statement 1 is correct:** The Miyawaki method focuses on creating dense, multi-layered forests using native tree species. This mimics the natural forest structure and promotes biodiversity.

**Statement 2 is correct:** Saplings are planted close together in the Miyawaki method. This creates competition for sunlight, encouraging rapid vertical growth and a dense canopy. This also helps suppress weed growth and creates a self-sustaining ecosystem.

**Statement 3 is not correct:** The Miyawaki method is highly suitable for urban areas because it can be implemented in small spaces and requires less maintenance after the initial three years. While it requires watering in the initial stages, mature Miyawaki forests are generally drought-resistant.

**12. (c)****Statement 1 is correct**

- **Green Hydrogen** is produced using renewable energy sources through a process called **electrolysis**, where water is split into hydrogen and oxygen using electricity generated from renewable sources only such as solar, wind, or hydropower.
- It **does not emit greenhouse gases**, making it a sustainable and environmentally friendly alternative.
- **Traditional hydrogen production methods**, such as grey hydrogen (produced from fossil fuels) and blue hydrogen (produced from fossil fuels with carbon capture), still contribute to greenhouse gas emissions.

**Statement 2 is correct**

- India has set an ambitious target of producing 5 million metric tonnes (MMT) of green hydrogen annually by 2030.

13. (c)

**About Ganges River Dolphins (also called 'susu')**

- **Scientific Name:** Platanista Gangetica .
- **Discovery:** Officially discovered in 1801.
- **Habitat and Distribution:** Ganges and Brahmaputra rivers & their tributaries in India, Bangladesh and Nepal.
- **Characteristics:** **Only live in freshwater** & does not have a crystalline eye lens, rendering it effectively blind.
  - Navigation and hunting through a highly developed '**sonar system**', using **echolocation (ultrasonic sounds)**.
  - The body is a brownish colour and stocky in the middle.
- **Significance:**
  - Indicator of the health of the entire river ecosystem.
  - Controlling and maintaining healthy fish and crustacean populations
  - GOI declared **National Aquatic Animal in 2009**
- **Threats:** Habitat degradation via pollution, construction etc.
  - Accidental deaths via entanglement in the nets (bycatch), Poaching.
- **Conservation Status:** Endangered (IUCN), Schedule I of Wildlife Protection Act, 1972.
  - Appendix I of CITES

14. (d)

**Context:** The Textile Ministry has urged Japanese brand Uniqlo to expand its R&D into new natural fibers, including milkweed, aligning with India's initiatives in this area.

**About: Milkweed**

- Milkweed (*Asclepias syriaca* L) belongs to the **genus Asclepias** of the family Aselepiadaceae and is also known as **stubborn weed**.
- Milkweed is the only food source for the **monarch butterfly caterpillar**, an iconic but declining species of North America.
- In India, it is found as a **wild plant** in the states of **Rajasthan, Karnataka and Tamil Nadu**.
- It tolerates light shade but thrives in full sun, growing up to 1.5 meters (5 feet) tall, typically in clusters of stout stems.
- Its use as a **milkweed fibre** was found in **Europe** during the 18th century and was also used as a **filling for life jackets** during World War II.

15. (a)

**Context:** The Northern giant hornet, nicknamed the "murder hornet", has been eradicated in the United States.

**About**

- The northern giant hornet (*Vespa mandarinia*), also known as the **Asian giant hornet** is the **largest hornet** in the world, measuring up to **2 inches long**.
- This invasive species, **native to Asia**, was first spotted in Washington state in 2019.
- Murder hornets pose a significant threat to **agriculture, insects, and native pollinators**, with the ability to destroy an **entire honeybee hive** in just 90 minutes.
- It generally **doesn't attack people** unless threatened, but can sting through most beekeeper suits, delivering nearly **seven times** more venom than a honeybee and can sting multiple times.

16. (d)

**Both the statements are not correct:** Squirrels are **small to medium-sized rodents** that belong to the family **Sciuridae**.

- **Habitat and Range:** Squirrels can be found all over the world, **except in Australia and Antarctica**.
- **Diet:** Squirrels are **omnivores**, but they are primarily herbivores.
  - They eat nuts (especially acorns), seeds, fruits, and fungi.
  - Some species will also eat small insects, bird eggs, or fungi if necessary.
  - Squirrels have a habit of storing food for the winter.

17. (a)

**Context:** The Union Minister for Environment, Forest and Climate Change, released the India State of Forest Report 2023 (ISFR 2023) at **Forest Research Institute, Dehradun**.

**About**

- It is published **every two years** by the **Forest Survey of India (FSI)** under the Ministry of Environment, Forests and Climate Change.
  - **The first survey** was published in **1987**, and ISFR 2023 is the 18th such report in the series.
- The report contains information on forest cover, tree cover, mangrove cover, growing stock, carbon stock in India's forests, instances of forest fire, Agroforestry, etc.

**Forest Survey of India (FSI)**

- **FSI was established in 1981** and is under the Ministry of Environment, Forest and Climate Change, Government of India.
- It succeeded the **Preinvestment Survey of Forest Resources (PISFR)**, initiated in **1965** with Food and Agriculture Organization (FAO) and United Nations Development Programme (UNDP) support.

18. (b)

**Chromatophores for skin color change:** This is a defining characteristic of cephalopods. They have specialized pigment cells called chromatophores that allow them to rapidly change color and patterns for camouflage, communication, and mating displays.

**Tentacles with suction cups or hooks:** Cephalopods have tentacles or arms with suction cups or hooks, which they use for capturing prey, locomotion, and manipulating objects.

**Chambered shells in all species:** This is not correct. While some cephalopods, like the nautilus, have chambered shells, many others, such as octopuses and squid, have either reduced internal shells or no shells at all.

**Cold-blooded nature (ectothermic):** This is correct. Cephalopods are ectothermic, meaning they rely on external sources of heat to regulate their body temperature.

19. (b)

**In News :** A recent study highlights the growing threat to the lion-tailed macaque due to increased human-wildlife interactions.

**Statement 1 is not correct :** **Lion-tailed macaque (Macaca silenus)** is a member of the silenus group.

- **Habitat :** Mainly arboreal, this species prefers the upper canopy of primary tropical evergreen rainforest. **Lion-tailed macaque** is classified as **endangered** on the **IUCN Red List** and protected under Appendix I of CITES.

**Statement 2 is correct :** **Lion-tailed macaque** is endemic to the Western Ghats hill ranges in southwestern India.



- It can be found in states of Karnataka, Kerala, and Tamil Nadu.
- Its population faces **threats** from habitat loss, fragmentation, and human encroachment.

## 20. (b)

**Statements 1 and 3 are not correct :** The Bald Eagle has a distinctive white head and tail with dark brown body and wings. Its yellow beak is large and hooked, and it has powerful talons.

- The Bald Eagle symbolizes strength, freedom, and independence.
- It breeds in **Canada, USA, Mexico, and the French island territories** of Saint Pierre and Miquelon
  - **IUCN Red List status :** It is listed as **Least Concern** species

**Statement 2 is correct :** The bald eagle is officially declared as the **national bird of the United States**.

- The bald eagle is indigenous to **North America**.
- The Bald Eagle symbolizes strength, freedom, and independence.

## 21. (d)

**In News:** Sea otters are helping control the population of green crabs, an invasive species, in California's Elkhorn Slough National Estuarine Research Reserve.

- Green crabs, native to Europe, arrived in North America in the 1800s and have been damaging seagrass beds, outcompeting native species, and disrupting coastal ecosystems since the 1980s.

**Statements 1,2, and 3 are correct: Sea otters**

- They are the **smallest marine mammal, yet the largest member of the weasel family**.
- **Unique Characteristics:** Lives entirely in the water throughout its life.
  - Has the densest fur of any animal on Earth (1 million hairs per square inch).
  - The only marine mammal capable of flipping over boulders to search for food.
- **Geographical Range:** Found in **Canada, Japan, Mexico, Russia, and the United States**.

**Statement 4 is not correct : Sea otters** Known as a keystone species, they regulate populations of herbivores like sea urchins, preventing them from destroying kelp forests.

- **Conservation Status:** Classified as **endangered** by the IUCN.

■■■■

# MISCELLANEOUS

1. The World Solar Report 2024, was released by which of the following organizations?
  - (a) International Energy Agency (IEA)
  - (b) World Bank (WB)
  - (c) United Nations Environment Programme (UNEP)
  - (d) International Solar Alliance (ISA)
2. The Balkan Blues, which was recently included in UNESCO's National Inventory of Intangible Cultural Heritage, is,
  - (a) A traditional musical form
  - (b) A type of folk dance
  - (c) A religious ritual practice
  - (d) A form of traditional cuisine
3. Prime Minister Narendra Modi has been honoured by 'The Order of Mubarak Al-Kabeer' recently by which of the following countries?
  - (a) Guyana
  - (b) Egypt
  - (c) Nigeria
  - (d) Kuwait
4. Who is typically accorded a state funeral in India?
  - (a) Only Prime Minister
  - (b) Only the President and Prime Minister
  - (c) The President, Prime Minister and Governors.
  - (d) Only the President
5. The Travel and Tourism Development Index (TTDI), recently seen in the news, is published by which of the following?
  - (a) International Monetary Fund (IMF)
  - (b) World Bank (WB)
  - (c) World Economic Forum (WEF)
  - (d) United Nations Development Programme (UNDP)
6. The term 'Boxing Day' often seen in the news, is related to which of the following?
  - (a) Commemorate the successful nuclear test
  - (b) Holocaust Remembrance Day
  - (c) A public holiday after Christmas
  - (d) Honours refugees around the globe
7. Who was awarded the Indira Gandhi Prize for Peace, Disarmament, and Development 2024?
  - (a) Angela Merkel
  - (b) Ellen Johnson Sirleaf
  - (c) Daniel Barenboim
  - (d) Veronica Michelle Bachelet Jeria

8. Which of the following personalities is known as the 'Encyclopedia of Forest' and has earned the title 'Vruksha Maate' (Mother of Trees) for her remarkable contributions to tree planting and environmental conservation?
- (a) Medha Patkar (b) Tulsi Gowda  
(c) Gaura Devi (d) Purnima Devi Barman
9. Which of the following best describes the term sportswashing?
- (a) Using sports events to promote physical fitness and well-being.  
(b) Using sports to improve a country's controversial image.  
(c) Cleaning and maintaining sports equipment and venues.  
(d) Hosting sports events to boost tourism and economic growth.
10. The China-Plus-One strategy, recently seen in news, primarily refers to;
- (a) A military alliance to counter China's influence.  
(b) A policy to increase foreign investment in China.  
(c) A strategy to diversify manufacturing and sourcing operations outside China.  
(d) A diplomatic initiative to enhance trade relations with China.
11. With reference to the notifiable disease, consider the following statements:
1. Notifiable diseases are illnesses that healthcare providers are legally obligated to report to public health authorities.
  2. AIDS, Hepatitis, Dengue and snakebite are notifiable diseases 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
12. Which among the following Indian states is known as the 'Falcon Capital of the World'?
- (a) Arunachal Pradesh (b) Nagaland  
(c) Assam (d) Manipur
13. The phrase 'New Collective Quantified Goal (NCQG)' was sometimes appeared in the news, is primarily in the context of:
- (a) Green Investing (b) Climate Finance  
(c) Carbon Offset (d) Climate Adaption
14. Which of the following nuclear techniques helps in optimizing fertilizer use in agriculture?
- (a) Cosmic-Ray Neutron Sensor (CRNS) technology  
(b) Isotopic tracing with nitrogen-15  
(c) Radiation-induced mutagenesis  
(d) Food irradiation methods
15. With reference to the The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013" (SH Act), consider the following statements:
1. Every organization with more than 50 employees has to establish an Internal Complaints Committee (ICC).
  2. A complaint can be filed by an aggrieved woman only.

Which of the statements given above is/are correct?

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

16. Which among the following best describes “Brain Rot”?

- (a) A medical condition affecting brain cells due to nutritional deficiencies.  
(b) Cognitive decline from excessive exposure to mindless social media content.  
(c) Mental exhaustion from academic pressure and stress.  
(d) A psychological disorder caused by excessive physical activity.

17. With reference to the World Soil Day, consider the following statements:

1. The concept of World Soil Day was introduced by the Food and Agriculture Organization in 2000.
2. The theme for World Soil Day 2024 is ‘Caring for Soils: Measure, Monitor, Manage.’

Which of the statements given above is/are correct?

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

18. With reference to the MuleHunter.AI Tool, consider the following statements:

1. It is developed by the Ministry of Finance in collaboration with Indian Space Research Organisation (ISRO).
2. It is developed to tackle the issue of mule accounts, which are used for financial fraud.

Which of the statements given above is/are correct?

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

19. Which one of the following is correct for the term ‘Pakri-Barwadih’:

- (a) Hydro-electric project in Karnataka  
(b) Wildlife Sanctuary in Kerala  
(c) Coal mine in Jharkhand  
(d) Tiger reserve in Madhya Pradesh

20. With reference to the Human Rights Day, which of the following statements is/are correct?

1. It marks the adoption of the Universal Declaration of Human Rights (UDHR) in 1948.
2. It has been observed every year since 1950.

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. ‘Anuradha Bhasin v. Union of India Case’ is related to which of the following?

- (a) Preventive Detention Act. (b) Basic Structure Doctrine.  
(c) Sexual Harassment at Work Place. (d) Internet Shutdowns.

22. World Malaria report, was released by which of the following organizations?

- (a) World Health Organization (WHO)  
(b) World Bank  
(c) United Nations Children’s Fund (UNICEF)  
(d) United Nations Development Programme (UNDP)

23. Which of the following countries accounted for the highest malaria cases in the WHO South-East Asia Region in 2023?
- (a) Indonesia (b) India  
(c) Sri Lanka (d) Thailand
24. Indigenous projects like 'Bhavani', sometimes appeared in news, is in the context of:
- (a) Submarine Development in India  
(b) Harnessing Thorium Reserves in India  
(c) Strengthening India's Armed Forces  
(d) Integrating Modern Technologies in Combat
25. Sreedharan Committee, recently seen in the news, is related to which of the following?
- (a) Appointment of Judges (b) Uniform Civil Code  
(c) Railway Reforms (d) Centre-State Relations
26. Social Dialogue Report, recently seen in the news, was released by which among the following organizations?
- (a) World Economic Forum  
(b) International Monetary Fund  
(c) United Nations Development Programme  
(d) International Labour Organisation
27. Global Report on Trafficking in Persons is released by which of the following organizations?
- (a) United Nations Human Rights Committee  
(b) United Nations High Commissioner for Refugees (UNHCR)  
(c) The United Nations Office on Drugs and Crime (UNODC)  
(d) United Nations Children's Emergency Fund (UNICEF)
28. The "Crossroad of Peace" initiative, recently in the news, aims to:
1. Connect Armenia with its neighboring countries, including Turkey, Azerbaijan, Iran, and Georgia.
  2. Build crucial infrastructure such as roads, railways, pipelines, and electricity lines.
  3. Strengthen connectivity between the Caspian Sea and the Mediterranean Sea, as well as the Persian Gulf and the Black Sea.
- Select the correct answer using the code given below:
- (a) 1 only (b) 1 and 2 only  
(c) 2 and 3 only (d) 1, 2, and 3
29. The 'Cape Town Declaration (2002) and Magna Carta London (2020)' have sometimes appeared in the news and are primarily in the context of:
- (a) Wildlife Protection (b) Sustainable Tourism  
(c) Alternative Fuels (d) Ozone Depletion
30. India's first biobank for diabetes has been established in which city?
- (a) New Delhi (b) Chennai  
(c) Bengaluru (d) Mumbai

- 31.** Which of the following best describes Varmam therapy?
- A form of Ayurvedic treatment for digestive disorders.
  - A type of modern physiotherapy.
  - A method of acupuncture based on Chinese principles.
  - A healing modality within the Siddha system of medicine.
- 32.** 'Radhakrishnan Panel' recently seen in the news, is related to which of the following?
- Banking Reforms
  - Competitive Examination Reforms
  - Taxation Reforms
  - None of the above
- 33.** With reference to the Sahitya Akademi Awards, consider the following statements:
- It prizes the most outstanding books of literary merit published in any of the 18 major Indian languages.
  - The award includes an engraved copper plaque, which was designed by the Indian filmmaker Satyajit Ray.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
- 34.** Consider the following statements with reference to the Pradhan Mantri Rashtriya Bal Puraskar (PMRBP):
- It is awarded annually to children in the age group of 5-10 years.
  - This award is the highest civilian honor for children in India.
  - Each awardee of PMRBP is given a medal, certificate and a citation booklet.
- Which of the statements given above is/are correct?
- 1 and 2 only
  - 2 and 3 only
  - 1 and 3 only
  - 1, 2 and 3
- 35.** Good Governance Day is observed to commemorate the birth anniversary of which of the following personalities?
- Atal Bihari Vajpayee
  - Rajiv Gandhi
  - Manmohan Singh
  - P. V. Narasimha Rao
- 36.** Recently, the term Panch Karma Sankalp has appeared in the news primarily in the context of:
- Poverty and Education in Rural Youth
  - Green Shipping and Digitization
  - Emission Control in Major Indian Cities
  - Developing North-eastern States
- 37.** Which among the following countries has recently approved the construction of the world's largest hydropower dam over Brahmaputra River?
- China
  - India
  - Bangladesh
  - Bhutan
- 38.** Which of the following countries are primarily associated with the Tamu Lhosar Festival?
- Japan
  - Bhutan
  - Nepal
  - Bangladesh



39. What is the significance of Vasilopita, a Greek tradition?
- It is a cake symbolizing the end of the war.
  - It is baked to honor the memory of Independence Day.
  - It is a cake containing a hidden coin symbolizing good luck.
  - It represents the harvest festival .

#### EXPLANATIONS

1. (d)

##### Context

- The World Solar Report 2024 was released by the **International Solar Alliance (ISA)**.

##### Key findings

- Rise in Solar Capacity:** From 1.22 GW in 2000, the world's solar capacity has surged to **1,419 GW in 2023**, charting a CAGR of about **36%**.
- Solar capacity represents three-quarters** of all renewable capacity additions globally in 2023.
- Employment:** Solar PV sector employed **7.1 million** people globally in 2023.

2. (a)

##### Context

- The Balkan Blues, a **traditional musical form**, was recently included in UNESCO's National Inventory of Intangible Cultural Heritage.

##### About

- Sevdalinka**, commonly referred to as the Balkan Blues, is a **melancholic urban love song** originating in the Balkan region.
- Its roots trace back to the **16th century**, reflecting a synthesis of South Slavic oral poetry and the musical influences of the **Ottoman Empire**.

##### Key Features

- Musical Expression:** It is often performed a capella or with accompaniment from traditional instruments such as the tamburica (a lute-like instrument).
- Cultural Transmission:** The art of Sevdalinka has been preserved through oral traditions, with performances being a central element of family gatherings and community events.

3. (d)

Prime Minister Narendra Modi was awarded **Kuwait's highest honour 'The Order of Mubarak Al Kabeer'**.

- The award was **instituted in 1974**, in the memory of **Mubarak Al Sabah** — also known as Mubarak al-Kabeer or Mubarak the Great — **who ruled Kuwait from 1896 to 1915**.
  - Under his reign, **Kuwait got more autonomy** from the Ottoman Empire.
- It is awarded to **Heads of State and foreign Sovereigns** and members of foreign royal families in **sign of friendship**.

4. (c)

**[SOL]In News :** Former Prime Minister Manmohan Singh was given a state funeral

A state funeral is a ceremonial event for important figures, following set rules, involving public mourning.

It is typically reserved for the death of the President, Prime Minister, a former President, or a Governor in India. However, in individual cases, the government may order a state funeral for other dignitaries.

5. (c)

#### Context

- India is ranked 39th among 119 countries in the 2024 Travel and Tourism Development Index (TTDI) report by the **World Economic Forum (WEF)**.

#### Travel and Tourism Development Index (TTDI) 2024

- Introduced in 2022, TTDI is an evolution of the Travel & Tourism Competitiveness Index (TTCI), which has been published biennially since 2007.



- It serves as a strategic benchmarking tool for businesses, governments, and organizations to develop the Travel & Tourism (T&T) sector.
- Findings of 2024 Index :**

Rank	Economy	Score <sup>2</sup>	Change since 2019 <sup>3</sup>		Diff. from TTDI Avg. (%)
			Rank	Score	
1	United States	5.24	0	-0.5%	32.3%
2	Spain	5.18	0	0.9%	30.6%
3	Japan	5.09	0	-0.3%	28.5%
4	France	5.07	2	0.8%	28.0%
5	Australia	5.00	2	0.8%	26.0%

6. (c)

Boxing Day is a **holiday celebrated the day after Christmas Day**.

- In the United Kingdom, as well as a number of other countries like Scotland, Ireland, Australia, New Zealand, and Canada—Boxing Day is a public holiday that became official in **1871**.
- Origin:** The term “Boxing Day” was first recorded in **1833**, but the official origin of the name has never been determined.
  - It is associated with the tradition of giving to the less fortunate.
  - It was believed that on this day, employers would give gifts, known as “Christmas boxes,” to their servants.
  - The servants worked on Christmas Day and would have the next day off to go visit their own families.
- Boxing Day has recently become **synonymous with watching sports**.

7. (d)

#### Context

- Former President of Chile, **Veronica Michelle Bachelet Jeria** was awarded the Indira Gandhi Prize for Peace, Disarmament and Development 2024.

#### Indira Gandhi Peace Prize

- Instituted in 1986**, the award is given annually by the Indira Gandhi Memorial Trust and consists of a monetary award of **Rs 25 lakh** along with a citation.
- The award is named after **Indira Gandhi**, the first and **only woman Prime Minister** of independent India.
- It aims to **honor women, men and institutions** that have done exemplary work in the service of humanity and the planet Earth.
- Recipients are chosen from a pool of national and international nominees.
  - In 2023** it was presented to **Daniel Barenboim and Ali Abu Awwad**.

8. (b)

**Context:** Prime Minister Narendra Modi expressed his condolences on the passing of Tulsi Gowda, a revered environmentalist.

#### About: Tulsi Gowda

- Known as the 'encyclopedia of forest', Gowda was born in **1944** in the Honnali village of Uttara Kannada district, Karnataka.
- The 81-year-old Gowda, from the **indigenous Halakki tribe**, nurtured **over 1 lakh trees** across Karnataka, earning the title 'Vruksha Maate' (Mother of Trees).
- Her contributions have strengthened one community reserve, **five tiger reserves**, 15 conservation reserves, and 30 wildlife sanctuaries, ensuring the preservation of diverse ecosystems.
- In 2021, the Government of India awarded her the **Padma Shri**, the country's fourth highest civilian award.

9. (b)

**Context:** Saudi Arabia, the sole bidder, has secured the hosting rights for the 2034 FIFA World Cup, but it has also sparked concerns over sportswashing.

#### What is sportswashing?

- It is a term used to describe the practice of nations, individuals, groups, or the corporations using sports to improve their reputations that have been damaged by misconduct or controversy.
- It can be accomplished through hosting sporting events, purchasing or sponsoring sporting teams, or participating in a sport.
- Examples of sportswashing includes:
  - The 1936 Berlin Olympics:** Hitler used the Olympics to improve Germany's international image.
  - The 1978 FIFA World Cup:** Argentina hosted and won the World Cup while its military junta threw dissidents out of planes.

10. (c)

#### What is the China-Plus-One strategy?

- The China-Plus-One strategy refers to a business diversification approach where **companies move manufacturing and sourcing** operations outside China to reduce dependency and mitigate risks.

- Countries like **India, Vietnam, Thailand, and Malaysia** are prime contenders for this shift.
- It provides benefits like market diversification, technology transfer, and greater global supply chain participation.

**11. (c)**

**Context:** India has declared snakebite a notifiable disease, which will help reduce the burden.

**About Notifiable Disease**

- Notifiable diseases are those that healthcare providers are **legally obligated to report to public health authorities**. This allows for surveillance, outbreak detection, and timely intervention. Other **notifiable diseases in India include: AIDS, Hepatitis, Dengue, Cholera etc**
- The World Health Organization's International Health Regulations (IHR) require countries to report certain disease outbreaks and public health events to the WHO.

**12. (b)**

**Context:** Prime Minister Narendra Modi greeted the people of Nagaland on their Statehood Day (December 1).

**About: Nagaland**

- It was formed on December 1, 1963, as the 16th state of India.
  - Until 1957, the region we today call Nagaland was just a district of the state of **Assam**, known to people as 'The Naga Hills'.
- One of the seven sister States, Nagaland is bound by Assam in the west, Myanmar in the east, Arunachal Pradesh and part of Assam in the North and Manipur in the South.
- Nagaland is also known as the '**Falcon Capital of the World**' as it is the primary stopover roosting site for Amur falcons.

**13. (b)**

**In News:** The recent **UN Climate Change Conference (COP29)** held in **Baku, Azerbaijan**, concluded with significant yet contentious outcomes, particularly regarding the **New Collective Quantified Goal (NCQG) for climate finance**.

**NCQG and Its Significance**

- Finance is a critical component in accelerating the adoption of cleaner alternatives, especially in developing countries.
- NCQG was designed to address the shortcomings of previous climate finance pledges, including the **\$100 billion annual commitment made at Cancun in 2010**.
- It aims to establish clearer, more accountable **climate finance goals post-2025 to support developing countries**.

**14. (b)****Isotopic tracing with nitrogen-15**

- It is a nuclear technique that helps optimize fertilizer use in agriculture. Nitrogen-15, a stable isotope of nitrogen, is used to trace the movement and uptake of nitrogen in plants.
- By applying nitrogen-15-labeled fertilizers to crops, scientists can track how much nitrogen is being absorbed by plants and how much remains in the soil.
- This technique helps in understanding the efficiency of nitrogen usage, guiding farmers to apply fertilizers in the right quantities and at the right times, reducing overuse, and minimizing environmental impacts such as soil acidification and water pollution.

15. (d)

**Both the statements are not correct: Definition of Sexual Harassment:** Unwelcome physical contact, sexual advances, demands for sexual favors, Sexual remarks, and any other inappropriate behavior.

- **Internal Complaints Committee (ICC):** Every organization with **more than 10 employees** has to establish an Internal Complaints Committee (ICC).
- The committee must be led by a woman and should include at least one external member, such as an expert on women's issues or an NGO representative.
- A complaint **can be filed by an aggrieved woman or any other person on behalf of the complainant.**

16. (b)

**Context:** Among words like demure, dynamic pricing, brain rot, lore, romantasy, and slop, 'brain rot' has been selected as the Oxford Word of the Year for 2024.

**About**

- 'Brain Rot' describes the **cognitive decline** attributed to excessive exposure to mindless social media content.
- The term gained momentum alongside the rise of trends like 'digital detox,' where individuals consciously take breaks from screens to counteract feelings of burnout or mental stagnation.
- 'Brain rot' serves as a linguistic lens into a pivotal issue of the modern age, encouraging introspection about how digital habits influence mental well-being.

17. (b)

**Context:** World Soil Day, celebrated annually on December 5, raises global awareness about the critical role of soil in sustaining life.

**World Soil Day**

- **Background:** The concept of World Soil Day was introduced by the **International Union of Soil Sciences (IUSS) in 2002.**
  - The FAO Conference unanimously endorsed World Soil Day in June **2013** and in December 2013, the **UN General Assembly** responded by designating 5 December 2014 as the first official World Soil Day.
- **Theme for 2024:** Caring for Soils: Measure, Monitor, Manage.

18. (b)

**Statement 1 is not correct:** The Reserve Bank of India (RBI) has developed an **AI/ML-based model called MuleHunter.ai.**

**Statement 2 is correct: Aim:** To tackle the **issue of mule accounts**, which are used for financial fraud.

- It uses machine learning to quickly and accurately identify suspicious accounts by tracking illicit fund flows.
- It will help banks detect fraud more effectively and efficiently, enhancing the security of India's financial ecosystem.
- **A mule account** is a bank account used by criminals to launder illicit funds, often set up by unsuspecting individuals lured by promises of easy money or coerced into participation.

19. (c)

**In News:** A recent case study titled 'From Gridlock to Growth: How Leadership Enables India's PRAGATI Ecosystem to Power Progress' by **Oxford and Gates Foundation** highlighted PRAGATI's role in transforming India's governance landscape.

- The study emphasizes the importance of top leadership in using technology to drive cross-collaboration and regular accountability reviews that has **created a culture of efficiency and trust in public infrastructure projects**.
- Pakri-Barwadih, Chatti Bariatu and Kerandari are captive **coal mines in Jharkhand** managed by NTPC Mining Ltd alongwith **Dulanga Coal Mine in Odisha and Talaipalli Coal Mine in Chhattisgarh**.

20. (c)

#### Context

- Human Rights Day is observed annually on December 10.

#### About Human Rights Day

- The day marks the adoption of the **Universal Declaration of Human Rights (UDHR)** by the United Nations General Assembly in **1948**.
  - Human Rights Day has been observed every year since **1950**.
- It emphasises the **significance of the fundamental rights of individuals** worldwide, regardless of their nationality, place of residence, gender, national or ethnic origin, religion, language, or any other status.
- **Theme for 2024:** "Our Rights, Our Future, Right Now".

21. (d)

**Anuradha Bhasin v. Union of India Case:** In **2020** the Supreme Court by **ruling on Jammu and Kashmir Internet shutdown** held that **indefinite internet shutdowns** by the State is not permissible under Indian Constitution.

- The apex Court further stated that **imposition of Section 144** can not be used as a mechanism to avoid genuine protest which is permitted under the Constitution.
  - **Section 144** has very specific parameters, only if those parameters are satisfied then only a Magistrate can pass the orders.

#### Key Highlights of the orders:

- Usage of the Internet is the **Fundamental Right under Article 19** of the Indian Constitution.
- Internet shutdowns can be of **temporary period** but not for indefinite period.
- The Court had also said that any order with regard to Internet Shutdowns will come under **Judicial Scrutiny**.

22. (a)

#### Context

- According to the **World Malaria report**, released by the **World Health Organization (WHO)**, India has seen significant progress in reducing malaria incidence and mortality rates.

#### Key findings

- The malaria caseload in India was **reduced by 69 percent** from 6.4 million in 2017 to **two million in 2023**.



- In 2023, **India accounted for half of all estimated malaria cases** in the WHO South-East Asia Region, followed by Indonesia, which accounted for just under one-third.
  - The Region had **eight malaria endemic countries in 2023**, accounting for **4 million cases** and contributing **1.5 percent** of the burden of malaria cases globally.
- **Bhutan and Timor-Leste**, from the Region, reported **zero malaria deaths** since 2013 and 2015, respectively, while **Sri Lanka** was certified **malaria-free in 2016**.

### 23. (b)

#### Context

- According to the **World Malaria report**, released by the **World Health Organization (WHO)**, India has seen significant progress in reducing malaria incidence and mortality rates.

#### Key findings

- The malaria caseload in India was **reduced by 69 percent** from 6.4 million in 2017 to **two million in 2023**.
- In 2023, **India accounted for half of all estimated malaria cases** in the WHO South-East Asia Region, followed by Indonesia, which accounted for just under one-third.
  - The Region had **eight malaria endemic countries in 2023**, accounting for **4 million cases** and contributing **1.5 percent** of the burden of malaria cases globally.

### 24. (b)

**In News:** Recently, the Union Minister of State (Independent Charge) for Science and Technology informed the recent Lok Sabha session that **India nearly doubled its nuclear power generation capacity** from 2014 to in 2024.

- India's abundant **thorium reserves**, constituting 21% of the global total, present a significant opportunity.
- **Indigenous projects like 'Bhavani'** are being developed to harness this resource, reducing dependence on imported uranium and other materials.

### 25. (c)

**Context:** The Railways (Amendment) Bill, 2024 was passed in the Lok Sabha, despite disruptions.

#### About

- All the provisions in the erstwhile colonial-era Indian Railway Board Act, 1905 are proposed to be incorporated in the Railways Act, 1989 through this Bill. It is intended to simplify the legal framework and reduce the need to refer to two laws.
- The Bill also proposes to amend the Railways Act, 1989 to provide statutory backing to the Railway Board, which has functioned without such a sanction since it began functioning.
- Along with this, the Bill also proposes to improve operational efficiencies and decentralize powers, granting greater autonomy to Railway Zones. Increasing autonomy has been a long-standing demand, supported by various committees, including the 2014 **Sreedharan Committee**.

### 26. (d)

**Context:** The International Labour Organisation (ILO) has released its **Social Dialogue Report** that has recommended the governments to uphold fundamental principles and rights at work.

#### About

- The report argues that social dialogue can enable countries to pursue economic development alongside social progress, while ensuring fair and inclusive low-carbon and digital transitions.

- The report has also highlighted the experience of Rajasthan that brought in the Platform Based Gig Workers (Registration and Welfare) Bill to provide for the establishment of the Rajasthan Platform Based Gig Workers Welfare Board.

**27. (c)**

The United Nations Office on Drugs and Crime has released its Global Report on Trafficking in Persons 2024.

- This is the eighth edition of the UN Report. The first report was published in 2009.
- It covers 156 countries and provides an overview of the response to the trafficking in persons by analysing trafficking cases detected between 2019 and 2023.

**UN Office on Drugs and Crime (UNODC)**

- It is a global leader in the fight against illicit drugs and international crime, in addition to being responsible for implementing the United Nations lead programme on terrorism.
- Established in **1997** and **headquartered in Vienna**.
- UNODC relies on **voluntary contributions**, mainly from governments, to carry out the majority of our work.

**28. (d)**

India, Iran, and Armenia held trilateral talks in New Delhi to boost the International North-South Transport Corridor (INSTC) and Chabahar Port's role. Armenia discussed its "Crossroads of Peace" connectivity plan.

**Statement 1 is correct:** The initiative explicitly aims to connect Armenia with its neighbors: Turkey, Azerbaijan, Iran, and Georgia. This is a crucial aspect, as Armenia currently has closed borders with Turkey and Azerbaijan due to long-standing conflicts.

**Statement 2 is correct:** The "Crossroad of Peace" envisions the development of critical infrastructure, including roads, railways, pipelines, and electricity lines. This infrastructure development is essential to facilitate trade, transportation, and energy flows between the participating countries.

**Statement 3 is correct:** A key goal of the initiative is to strengthen connectivity between major bodies of water: the Caspian Sea and the Mediterranean Sea, as well as the Persian Gulf and the Black Sea. This would create new trade routes and enhance regional economic integration.

**29. (b)**

**In News:** As the tourism sector in India continues to grow, it is crucial to ensure that this growth is sustainable, balancing economic benefits with environmental and social responsibilities.

- Globally, sustainable tourism emerged to mitigate the negative impacts of mass tourism. As defined by the **Cape Town Declaration (2002)** and **Magna Carta London (2020)**, sustainable tourism promotes responsible travel that benefits both people and the planet.

**30. (b)****Context**

- India has established its **first biobank** for diabetes in **Chennai**.

**About**

- **A biobank is a facility** that collects, processes, stores, and distributes biological samples, such as blood, tissues, and DNA.
- **The Indian Council of Medical Research (ICMR)**, in collaboration with the **Madras Diabetes Research Foundation (MDRF)**, has launched this diabetes biobank.
- **This initiative aims** to advance scientific studies on diabetes, focusing on its causes, variations, and complications in the Indian population.

31. (d)

**Context**

- The National Institute of Siddha (NIS) has set a Guinness World Record for providing Varmam therapy to 567 individuals simultaneously.

**What is Varmam therapy?**

- Varmam therapy, a unique and traditional **healing modality within the Siddha system of medicine**, has long been revered for its effectiveness in treating various health conditions.

It is particularly renowned for its ability to provide rapid relief for **musculoskeletal pain, injuries, and neurological disorders**.

32. (b)

A high-level committee of experts, headed by former chairperson of ISRO K. Radhakrishnan, has recommended **restructuring of the National Testing Agency (NTA)**.

- Compromised exam security leads to question paper leaks, giving unfair advantages to some students. For Example: **NEET-UG Paper Leak, UGC Net irregularities etc**
  - Manipulation of marks, like arbitrary awarding of grace marks, creates an uneven playing field.

33. (b)

**Statement 1 is not correct:** Every year since its inception in **1954**, the Sahitya Akademi Award prizes the most outstanding books of literary merit published in any of the **24 major Indian languages**.

- The first Awards were given in **1955**.

**Statement 2 is correct:** The award includes an engraved copper plaque, a shawl, and a cash prize.

- The plaque was designed by the Indian film-maker **Satyajit Ray**.

34. (b)

**Context:** Prime Minister Narendra Modi participated in the Veer Baal Diwas celebrations in New Delhi, where Pradhan Mantri Rashtriya Bal Puraskar (PMRBP) awardees were honoured.

**Pradhan Mantri Rashtriya Bal Puraskar (PMRBP)**

- It is awarded annually to children in the **age group of 5-18 years** for their exceptional abilities and outstanding achievements in **seven categories**: Bravery, Art & Culture, Environment, Innovation, Science & Technology, Social Service and Sports.
- This award is the **highest civilian honor for children** in India. Each awardee of PMRBP is given **a medal, certificate and a citation booklet**.

35. (a)

**Context:** Good Governance Day is observed annually on December 25 to commemorate the birth anniversary of former Prime Minister Atal Bihari Vajpayee.

**About: Good Governance Day**

- The day was **first celebrated** in 2014 and is also known as **Sushasan Diwas**.
- This day aims to promote **awareness among citizens** about government accountability and administration while also instilling “good governance” as a practice for Indian civil servants.
- The theme for the **2024 Good Governance Day** is “India’s Path to a Viksit Bharat: Empowering Citizens through Good Governance and Digitalisation.”

36. (b)

**In News:** As India ascends the global stage, its maritime sector emerges as a linchpin for commerce, connectivity, and international cooperation.

- **Panch Karma Sankalp:** It includes **five major announcements** focusing on green shipping and digitization in India.
  - MoPSW aims to provide 30% financial support for promoting Green Shipping that includes Green Tug Transition Programme, and Green Hydrogen Hubs etc.

37. (a)

#### Context

- China has approved the construction of the world's largest hydropower dam close to the Indian border, raising concerns in riparian countries — India and Bangladesh.

#### About the Dam

- It will be constructed at a massive gorge in the Himalayan region, where the **Yarlung Zangbo River** (the Tibetan name for the Brahmaputra) takes a sharp U-turn before flowing into **Arunachal Pradesh (India) and then Bangladesh.**



- The project, costing over **one trillion yuan (\$137 billion)**, is expected to generate over **300 billion kWh** of electricity annually, enough to meet the yearly energy needs of more than **300 million people**.
  - This capacity would significantly surpass the 38.2 billion kWh of the **Three Gorges Dam** in central China, currently the world's largest hydropower project.

38. (c)

**In News :** Tamu Lhosar was recently observed in **Nepal**.

#### Tamu Lhosar Festival

- It is celebrated by the Gurung community to mark the New Year and bid farewell to the past year.
- In the Gurung language, "Lho" means year, and "Sar" denotes change.
- Tamu Lhosar is celebrated on the 15th of the Nepali month Push (December-January).

39. (c)

**In News :** The vasilopita is an integral part of Greek New Year celebrations

- The Vasilopita is a traditional Greek cake baked to celebrate the New Year.
- A coin, known as flouri, is hidden inside the cake, and the person who finds it is believed to receive good fortune, love, and health for the year ahead.
- **Origin of the Tradition:** The tradition is rooted in legends associated with Saint Basil, who is akin to Santa Claus in Greece.

