

# December, 2023

# **NEXTIRS**



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## **HISTORY & CULTURE**

- 1. Parthenon Sculptures recently seen in the news, belong to which of the following civilisations?
  - (a) Greek

- (b) Roman
- (c) Mesopotamia (d) Egyptian
- 2. Term 'Tenyi Vo' sometimes appeared in the news, is related to:
  - (a) An art form
  - (b) A traditional water harvesting method
  - (c) A tribal custom
  - (d) A breed of pig
- 3. With reference to the Sindhudurg Fort, which of the following statements is/are correct?
  - 1. The fort is located in the Konkan region of Maharashtra.
  - 2. The fort was built in the 17th century by Peshwa baji Rao I, the ruler of Maratha Empire. Select the correct answer using the code given below:
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
- 4. Which of the following statements is correct about Hauz-i-Shamsi?
  - (a) It is a natural lake located in the state of Jammu and Kashmir, India.
  - (b) It is an artificial reservoir constructed by Sultan Iltutmush in Delhi.
  - (c) It is a UNESCO World Heritage Site known for its Mughal-era architecture and gardens.
  - (d) It is a holy site for Sikhs and Hindus located in the city of Amritsar.
- 5. With reference to the Mohenjo Daro in ancient Indian history, consider the following statements:
  - 1. It was entirely built of unbaked bricks.
  - 2. It was inscribed as World Heritage Sites of Outstanding Universal Value by UNESCO.
  - 3. It was the first site to be discovered in the Indus Valley Civilization.
  - How many of the statements given above are correct?
  - (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None

6. Consider the following pairs of Intangible Cultural Heritage of India with their regions/states:

- List I List II 1. Durga Puja Kolkata
- 2. Sankirtana Mizoram
- 3. Ramman Sikkim Himalayas
- 4. Chhau dance Eastern India

How many pairs given above are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs
- 7. With reference to Poona Pact, which of the following statements is/are correct?
  - 1. It was signed between Mahatma Gandhi and Dr. BR Ambedkar in 1930.
  - 2. The pact provided a separate electorate for the depressed class in the regional legislative assemblies.

Select the correct answer using the code given below:

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

8. With reference to Santiniketan, which of the following statements is/are correct?

- 1. It was established by Rabindranath Tagore.
- 2. The area is flanked on two sides by the rivers, the Ajay and the Kopai.

Select the correct answer using the code given below:

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

9. Consider the following statements about the Indian Art, Architecture & Design Biennale (IAADB) 2023.

- 1. It was the first such Biennale organized in India.
- 2. It was held in Dubai.
- 3. It aims to initiate a cultural dialogue among various stakeholders.

Which of the statements given above are correct?

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

10. Channapatna Toys recently in the news, it is related to which of the following states?

- (a) Bihar
- (b) Rajasthan
- (c) Karnataka
- (d) Mizoram

**11.** With reference to Indian Toys, Consider the following pairs :

## Toys

#### State

- 1. Kondapalli Toys : Andhra Pradesh
- 2. Channapatna Toys : Karnataka

|     | 3.   | Nirmal Toys  | :                | West Bengal    |  |  |  |
|-----|--|--|------------------|----------------|--|--|--|
|     | How many of the above pairs are correctly matched?   |  |                  |                |  |  |  |
|     | (a)  | Only one pair  |                  |                |  |  |  |
|     | (b)  | Only two pairs   |                  |                |  |  |  |
|     | (c) /  | All three pairs  |                  |                |  |  |  |
|     | (d)  | None of the pairs  |                  |                |  |  |  |
| 12. | With r   | With reference to the Puri Temple, which of the following statements is/are correct?   |                  |                |  |  |  |
|     |  |  |                  |                |  |  |  |
|     |  | century.<br>The temple is constru  | uted in Kalings  | a arabitaatura |  |  |  |
|     |  | The temple is constru  | -                |                |  |  |  |
|     | Select the correct answer using the code given below:  |  |                  |                |  |  |  |
|     | • •  | 1 only   |                  |                |  |  |  |
|     |  | 2 only   |                  |                |  |  |  |
|     | • •  | Both 1 and 2   |                  |                |  |  |  |
|     | . ,  | Neither 1 nor 2  |                  |                |  |  |  |
| 13. |  | eference to folk dan   | ces, Consider ti |                |  |  |  |
|     |  | Dance form   |                  | State          |  |  |  |
|     |  | Kolattam Dance   | :                | Andhra Pradesh |  |  |  |
|     |  | Shigmo<br>Lai Haraoba  | •                | Goa<br>Manipur |  |  |  |
|     |  | nany of the above p  | airs are correct |                |  |  |  |
|     |  | Only one pair  |                  |                |  |  |  |
|     |  | Only two pairs   |                  |                |  |  |  |
|     |  | All three pairs  |                  |                |  |  |  |
|     | • •  | None of the pairs  |                  |                |  |  |  |
| 14. | UNESCO Asia-Pacific Awards for Cultural Heritage Conservation 2023, was awarded for which of the |  |                  |                |  |  |  |
|     | follow   | ing Indian sites?  |                  |                |  |  |  |
|     | 1.   | Taj Mahal, Agra  |                  |                |  |  |  |
|     |  | Rambagh Gate in Am   |                  |                |  |  |  |
|     |  | 3. Church of Epiphany in Gurugram  |                  |                |  |  |  |
|     |  | Pipal Haveli, Gurdasp  |                  |                |  |  |  |
|     | 5. Chhatrapati Shivaji Maharaj Terminal, Mumbai  |  |                  |                |  |  |  |
|     | Select the correct answer using the code given below:  |  |                  |                |  |  |  |
|     |  | 1, 2 and 3 only  |                  |                |  |  |  |
|     |  | 2, 3 and 4 only  |                  |                |  |  |  |
|     |  | 2, 3, 4 and 5 only   |                  |                |  |  |  |
|     |  | 1, 2, 3, 4 and 5   |                  |                |  |  |  |
|     | 'A Prix Versailles Initiative' sometimes mentioned in the news, is in context of:                |  |                  |                |  |  |  |
| 15. |  | <ul> <li>(a) Eliminating cervical cancer by 2023</li> <li>(b) Recognising the world's most beautiful achievements</li> </ul> |                  |                |  |  |  |
| 15. |  | -  | -                |                |  |  |  |

- (c) Combating global warming by limiting greenhouse gas emissions
- (d) Safeguarding intangible world heritage
- **16.** Consider the following statements
  - 1. Tansen Samaroh is celebrated every year in the month of December in Jharkhand.
  - 2. Tansen was one of the nine gems of the court of Mughal emperor Akbar.
  - 3. Tansen is given credit for introducing famous ragas Miyan ki Malhar and Darbari.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 17. With reference to the Sunehri Bagh masjid, which of the following statements is/are correct?
  - 1. It was built by Mughal Emperor Shah Jahan in the 16th-century.
  - 2. Freedom fighter Maulana Hasrat Mohani used to reside at the mosque during his visits to Delhi.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **18.** 'Pandit Motiram Pandit Maniram Sangeet Samaroh' is held annually, in which of the following cities in India?
  - (a) New Delhi
  - (b) Hyderabad
  - (c) Chennai
  - (d) Kolkata
- **19.** The places named Varuna, Varakodu and Vajamangala, recently seen in the news, are related to which of the following?
  - (a) Famous cave paintings in South India
  - (b) Ancient Buddhist sites
  - (c) Jain centres from Karnataka
  - (d) Ancient ports of West Indian coast
- **20.** Anekantavada, recognizing the multifaceted nature of reality and respecting diverse perspectives is a philosophy propounded by which of the following religions in India?
  - (a) Buddhism
  - (b) Jainism
  - (c) Ajivikas
  - (d) Lokayatas

## **EXPLANATIONS**

#### 1. (a)

About Parthenon Sculptures

- The Parthenon Sculptures are more than 30 ancient stone sculptures from Greece that are more than 2,000 years old.
- Most of them originally adorned the walls and grounds of the Parthenon temple on the rocky Acropolis hill in Athens.
  - Completed in 432 BC, the temple is dedicated to the goddess Athena and is seen as the crowning glory of Athens' Golden Age.
- While one notable sculpture, which is 75 metres long, depicts a procession for the birthday of Athena, others show gods, heroes or mythical creatures.

#### 2. (d)

Nagaland is celebrating the 24th edition of the Hornbill Festival 2023 at the Naga Heritage Village Kisama.

• For the first time, there will be an exhibition featuring the Mithun (the State animal) and Tenyi Vo (a native breed of pig) from the rural Nagaland.

Nagaland Beekeeping and Honey Mission is launching the first 'Bee Tourism' to showcase Nagaland's rich beekeeping tradition and unique practices carried out across the state.

#### 3. (a)

Statement 1 is correct and 2 is not correct.

#### Sindhudurg Fort

- Location: The fort lies on the shore of Malvan town of Sindhudurg District in the Konkan region of Maharashtra.
- History: Sindhudurg island-fort was built in the 1660s by Shivaji I, the ruler of Maratha Empire. The Construction was supervised by Hiroji Indulkar.

Its main objective was to counter the rising influence of foreign (English, Dutch, French and Portuguese) merchants and to curb the rise of Siddhis of Janjira.

#### 4. (b)

Situated in Mehrauli near the Jahaz Mahal, Hauz-i- Shamsi, also known as the Shamsi Talab, is a water reservoir built between 1211- 1236 AD by Sultan Iltutmish.

• Sultan Firoz Shah Tughlaq got it repaired later on and refilled it with water.

The reservoir also finds mentions in the works of famed traveller Ibn Batuta who had described the Hauz-i-Shamsi as a rectangular-shaped reservoir that was spread across an area of one mile by two miles.

#### 5. (b)

#### Statement 1 is correct:

 Mohenjo Daro (Mound of the dead) was built entirely of unbaked brick in the 3rd millennium B.C. and lies in the Indus Valley, in Larkana district of Sindh (Pakistan), about 5 km away from the River Indus.

#### Statement 2 is correct:

It was inscribed as World Heritage Sites of Outstanding Universal Value by UNESCO in 1980.

#### Statement 3 is not correct:

Although Mohenjodaro is the most well-known site, the first site to be discovered was Harappa.

#### 6. (b)

#### Pairs 2 and 3 are incorrect.

- The popular dance form Garba is the 15th cultural item from India to make it to the UNESCO list. 0
  - The 14 other elements from India are:
    - Ramlila:
    - yoga;
    - vedic chanting;
    - Kutiyattam,
    - Sanskrit theatre of Kerala;
    - Ramman, religious festival and ritual theatre of the Garhwal Himalayas;
    - Mudiyettu, ritual theatre and dance drama of Kerala;
    - Kalbelia folk songs and dances of Rajasthan;
    - Chhau dance of eastern India;
    - Buddhist chanting of Ladakh;
    - Sankirtana, ritual singing, drumming and dancing of Manipur;
    - traditional brass and copper craft of utensil making in Punjab;
    - Nowruz;
    - Kumbh Mela and
    - Durga Puja in Kolkata.

#### 7. (d)

#### Both the statements are not correct.

#### Poona Pact

In 1932 on behalf of untouchables, Dr BR Ambedkar signed the Poona Pact with Mahatma Gandhi, • who was representing Congress.

The pact provided the provisions for reserved seats for the depressed class in the regional legislative assemblies and Central Council of States.

#### 8. (b)

Statement 1 is not correct: Santiniketan was earlier known as Bhubadanga.

It was established by Maharshi Debendranath Tagore in 1862, and later expanded by his son, Rabindranath Tagore.

Statement 2 is correct: Location: Santiniketan, popularly known today as a university town, is located in the Birbhum district in West Bengal.

Rivers: The area is flanked on two sides by the rivers, the Ajay and the Kopai.

#### 9. (c)

Indian Art, Architecture & Design Biennale (IAADB)

- The Prime Minister recently inaugurated the first Indian Art, Architecture & Design Biennale • (IAADB) 2023.
- It is being organized from 9th to 15th December 2023 at Red Fort, New Delhi.
- Objective: To initiate a holistic conversation between artists, architects, designers, photographers, • collectors, art professionals and the public to strengthen the cultural dialogue.

It will also provide avenues and opportunities to expand and collaborate with the creators of art, architecture and design as part of the evolving economy.

#### 10. [ANS] c

In News: Toys made in Channapatna now become part of children's academic activities in Afghanistan.

#### Channapatna Toys

- In the native language Channapatna is also called as "Goombegala Ooru" meaning toys town in English.
  - Channapatna taluk comes under Ramanagara District. It is located in Karnataka.
- The history of Channapatna toys can be traced back to the time of Tipu Sultan, who encouraged the Persians to come down to India and teach the artisans the art.
  - Bavas Miyan is known as the Father of Channapatna Toys for his commitment to helping the local artisans and bringing in new technologies to improve the craft.

Channapatna Toys has received the Geographical Indication (GI) tag.

#### 11. (b)

Pair 1 and 2 are correctly matched and Pair 3 is incorrectly matched.

#### Channapatna Toys- Karnataka

- In the native language Channapatna is also called as "Gombegala Ooru" meaning toy town in English. Channapatna taluk comes under Ramanagara District. It is headquarters is located in Bengalur-Mysuru highway.
- The history of Channapatna toys can be traced back to the time of Tipu Sultan, who encouraged the Persians to come down to India and teach the artisans the art.
- Channapatna Toys has received the Geographical Indication (GI) tag.
- Features : The toys are made mainly from Dhoodi Wood or Milkwood, as it is easy to carve out the shapes. However, craftsmen now use other types of hardwood like rubberwood, sycamore, silver wood and red cedar.

#### Nirmal toys-Telangana

- Nirmal toys are traditional Indian wooden toys made in the town of Nirmal in the Adilabad district in the state of Telangana in India.
- Nirmal Art, encompassing a 400-year-old tradition of making soft wood toys and paintings, occupies a place of pride in the world of handicrafts.

#### Kondapalli Toys-Andhra Pradesh

- Kondapalli Toys are toys made of wood in Kondapalli of Krishna district, a nearby Vijayawada in the Indian state of Andhra Pradesh
- The artisans who make the toys are referred as Aryakhastriyas (also known as Nakarshalu), who have their mention in the Brahmanda Purana.

The Kondapalli toys are made from softwood known as Tella Poniki which are found in nearby Kondapalli Hills.

#### 12. (c)

#### Both the Statements are correct.

#### Shri Jagannath Puri Temple

- It is one of the most impressive monuments of the Indian State Odisha and It is one of the most revered Vaishnava sites of worship in India.
- It was constructed by a famous king of Ganga Dynasty Ananta Varman Chodaganga Deva dating back to the 12th century at the seashore Puri.

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

#### 13. (c)

All the Pairs are correctly matched.

#### Kolattam Dance

#### Context

• In Vijayawada, Andhra Pradesh Girls performed Kolattam dance during Balotsav, a children's festival.

#### About

- The Kolattam dance is predominantly a dance performed by women, in Southern India.
  - Men mostly take up the role as drummers or play the background music.
- In Tamil Nadu and Kerala the dance is known as Kummi and in Andhra Pradesh it is known as Kolannalu.

#### Shigmo

- Shigmo, or Shishirotsava is a spring festival celebrated in the Indian state of Goa,
- It is one of the major festivals of the Hindu community.

#### Lai Haraoba

- Lai-Haraoba is a grand festival of Manipur celebrated to revere the local deities such as Umang Thai.
- This festival is characterized by the worship of traditional gods and ancestors.

#### 14. (b)

Three heritage projects from Punjab and Haryana have secured prestigious spots among the UNESCO Asia-Pacific Awards for Cultural Heritage Conservation.

- In 2023 edition, Rambagh Gate in Amritsar, Punjab received the highest honour- the Award of Excellence, the Church of Epiphany in Gurugram, Haryana earned the Award of Merit and Pipal Haveli, Gurdaspur, Punjab was honoured for its sustainable development.
  - Earlier in 2022, Chhatrapati Shivaji Maharaj Vastu Sangrahalaya, Mumbai, Domakonda Fort, Telangana, and Byculla Station, Mumbai accorded this special recognition.

#### 15. (b)

#### A Prix Versailles Initiative:

- It is for recognising the 'World's Most Beautiful' Achievements, which are granted by the Prix Versailles.
- It was established in 2015.
- It focuses on intelligent sustainability as a cultural driver, acknowledging innovation, creativity, reflection of local heritage, ecological efficiency, and values of social interaction.

#### Terminal 2 (T2) of Kempegowda International Airport:

- It is also known as the Terminal in a Garden has been recognised as one of the world's most beautiful airports and awarded the world special prize for interiors at the UNESCO's 2023 Prix Versailles.
- The terminal is built upon four foundational pillars technological leadership, terminal in a garden, environmental and ecological stewardship, and a celebration of Karnataka's rich heritage and culture.

#### 16. (b)

**In News:** Around 1,300 tabla players who performed during Tansen Samaroh entered the Guinness World Records for achieving the "largest tabla ensemble".

Statement 1 is not correct : Tansen Samaroh is celebrated every year in the month of December in Gwalior district of Madhya Pradesh.

• It is a 4 day musical extravaganza.

Statements 2 and 3 are correct : Tansen is considered one of the great exponents of the North Indian system of music.

- He was one of the nine gems of the court of Mughal emperor Akbar
- He also received patronage under
  - Mohammad Shah Adil of Suri dynasty.
  - Ramchandra Vaghela of Reevan
- He is given credit for introducing some famous raagas viz., Miyan ki Malhar, Miyan ki Todi and Darbari.

#### 17. (b)

Statement 1 is not correct and 2 is correct.

#### Sunehri Bagh masjid

- The Sunehri Masjid is an 18th-century mosque in Old Delhi.
- It was built by Mughal noble Roshan-ud-Daula, during the reign of Mughal Emperor Muhammad Shah.
  - The mosque was dedicated to Roshan-ud-Daula's spiritual mentor, Shah Bhik.
- Sunehri Bagh masjid housed freedom fighters like Maulana Hasrat Mohani. He used to reside at the mosque when attending Parliament sessions, and refused government accommodation.

#### 18. (b)

#### Pandit Motiram Pandit Maniram Sangeet Samaroha:

- It is an annual classical music festival started by Pandit Jasraj in 1972 to musically express love to his Father, Sangeet Ratna Pandit Motiram ji and his elder brother and later his Guru, Sangeet Mahamahopadhyaya Pandit Maniram ji.
- It is the oldest festival of Hyderabad, and this legacy is carried forward by Pandit Jasraj Cultural Foundation. For this unique contribution he was called "Son of Hyderabad".
- The festival features performances by leading classical musicians from India and abroad, covering a variety of genres, including khayal, thumri, dadra, and bhajan.

#### 19. (c)

Three Jain sculptures dated to around 11th century CE were discovered in Varuna village in Mysore district recently.

• The entire belt comprising Varuna, Varakodu and Vajamangala in Mysore, Karnataka were once thriving Jain centres.

#### 20. (b)

Anekantavada (Many-sidedness) is a philosophy propounded by Jainsim.

It recognizes the multifaceted nature of reality and respects diverse perspectives.

# ECONOMY

- 1. With reference to the Index of Industrial Production (IIP), consider the following statements:
  - 1. It measures the short-term changes in the volume of production of a basket of industrial products.
  - 2. It is done by the National Statistics Office under the Ministry of Finance.
  - 3. Currently, IIP figures are calculated considering 2004-05 as the base year.

Which of the statements given above are correct?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1,2 and 3
- 2. Which of the following are components of Current Account?
  - 1. Exports and imports of goods
  - 2. Banking and Software Services
  - 3. Gifts, remittances and grants
  - 4. Multilateral and Bilateral Loans

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 1 and 4 only
- (c) 3 and 4 only
- (d) 1, 2 and 3 only
- 3. Which of the following statements is TRUE about fiscal deficit?
  - (a) Fiscal deficit represents the amount of borrowing required by the government.
  - (b) Fiscal deficit is always negative.
  - (c) Fiscal deficit is a sign of a developing economy.
  - (d) Fiscal deficit is always financed by external borrowing.
- 4. The Reserve Bank of India recently retained the stance of the monetary policy as 'withdrawal of accommodation'. What does it mean?
  - (a) The central bank is going to increase the money supply in the market.
  - (b) The central bank is going to reduce the money supply in the market.
  - (c) The central bank is going to increase its inflation target.
  - (d) The central bank is going to reduce its inflation target.

- 5. Consider the following statements about the defense expenditure in India:
  - 1. The defence budget of India is around 6 percent of its GDP.
  - 2. India's defence budget has witnessed a steady increase in the past decade.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 or 2
- 6. With reference to the Textile industry in India, consider the following statements:
  - 1. India is among the top 3 leading producers of cotton in the world.
  - 2. Amended Technology Upgradation Fund Scheme (ATUFS) was launched for the growth of the sector.
  - 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 Fiat Money, which of the following statements is/are correct?
  - 1. It is a government-issued currency that has legal backing from a physical commodity like gold or silver.
  - 2. It is considered a form of legal tender.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 8. Which of the following statements best describes Anarcho-capitalism?
  - (a) It emphasizes the importance of individual rights and limited government intervention.
  - (b) Individuals agree to form a society and abide by certain rules for mutual benefit and protection.
  - (c) It combines elements of anarchism, which opposes government authority, with capitalism, which supports private ownership and free markets.
  - (d) It advocates for a classless society where the means of production are collectively owned.
- 9. To obtain the full benefits of demographic dividend, what should be the best alternative for India?
  - (a) Promoting skill development
  - (b) Introducing more social security schemes
  - (c) Reducing Infant Mortality Rate
  - (d) Privatisation of Higher Education
- 10. Which of the following best describes the term "Reverse Repo Rate", sometimes seen in the news?
  - (a) The rate of the interest that the commercial banks pay to RBI on long-term loans from the RBI.
  - (b) The rate of interest that RBI pays to commercial banks that offer long term loans to RBI.

- (c) The rate of interest that RBI pays to commercial banks that offer a short term loan to RBI.
- (d) The rate of interest that commercial banks pay to RBI that borrow short-term loans from RBI.
- 11. With reference to the Opium production, which of the following statements is/are correct?
  - 1. Myanmar is the world's top producer of opium.
  - 2. In India 80% of the opium is produced by Andhra Pradesh.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 12. With reference to the Nominal Effective Exchange Rate (NEER), consider the following statements:
  - 1. It compares a nation's currency value against the weighted average of a basket of other major currencies.
  - 2. The decrease and increase in the index denote depreciation and appreciation of the Rupee respectively.
  - 3. It takes into account inflation as well.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3
- 13. With reference to the 'Digital India Corporation (DIC)', consider the following statements:
  - 1. It is a not-for-profit company established by the Ministry of Electronics and Information Technology (MeitY).
  - 2. It works on projects of national importance which run on cloud services.

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. The 'Periodic Labour Force Survey (PLFS)' is released by which of the following ministries:

- (a) Ministry of Labour and Employment
- (b) Ministry of Statistics & Programme Implementation
- (c) Ministry of Consumer Affairs, Food and Public Distribution
- (d) Ministry of Commerce and Industry
- 15. Consider the following statements:
  - 1. China, India and Indonesia are the three largest coal producers globally.
  - 2. India aims to reach 500 GW of renewable energy capacity 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
- 16. 'Digital Bharat Nidhi', sometimes mentioned in the media report, is related to:
  - (a) Foreign Exchange
  - (b) Land Reform
  - (c) Disaster Management
  - (d) Telecom Services
- 17. With reference to the adjudication process highlighted in the Telecommunications Bill (2023), consider the following statements:
  - 1. The Union government appoints an adjudicating officer who must be of the rank of joint secretary and above.
  - 2. Orders of the adjudicating officer may be appealed before the Designated Appeals Committee within six months.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 18. Consider the following statements:
  - 1. Value investing refers to a style of investing that involves buying assets at a price that is below their intrinsic value.
  - 2. Value investors believe that markets are so efficient that all information that is relevant to an asset is quickly reflected in its price.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 19. With reference to the Self-Regulatory Organisations (SROs), consider the following statements :
  - 1. An SRO is a non-governmental organisation that sets and enforces rules and standards relating to the conduct of entities in the industry.
  - 2. An SRO is expected to address concerns beyond the narrow self-interests of the industry, such as to protect workers, customers or other participants in the ecosystem.
  - 3. Those entities who are interested in being recognised as SROs will have to issue a declaration in that respect in the print media.

Which of the statements given above are correct?

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

- (d) 1, 2 and 3
- 20. Some elements are called 'Rare earth elements' due to which of the following reasons?
  - (a) They are less abundant in the Earth's crust than popular metals like gold and silver.
  - (b) They are not often found in concentrated enough clusters to make them viable to mine.
  - (c) They are rare in the sense they rarely react with other elements.
  - (d) They are concentrated in a few countries of the world.
- 21. Term "Funding Winter" sometimes seen in the news ,it is related to
  - (a) Misleading claims about the environmental benefits of a product
  - (b) The supreme secular authority in Medieval Europe
  - (c) The sudden fall of temperature from high to low within a few hours
  - (d) The slowdown in funding for startups
- 22. Consider the following statements with reference to Viability Gap Funding (VGF) Scheme:
  - 1. It is a Central Sector Scheme administered by the Ministry of Finance.
  - 2. It provides support only for infrastructure projects .
  - 3. The total Viability Gap Funding will not exceed 20% of the Total Project Cost under this scheme. How many of the statements given above are correct?
  - (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
- 23. With reference to the Periodic Labour Force Survey (PLFS), consider the following statements:
  - 1. It is published by the Ministry of Labour & Employment.
  - 2. Labour Force Participation Rate (LFPR) is one of the indicators, which is defined as the percentage of employed persons in the population.

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. Consider the followings statements with reference to The Foreign Exchange Management Act, 1999 (FEMA):
  - 1. It replaced the Foreign Exchange Regulation Act, 1973 and extends to the whole of India.
  - 2. It empowers the Directorate of Enforcement to conduct investigation into suspected contraventions of foreign exchange laws .
  - 3. It is not applicable to any contravention committed outside India .

How many of the statements given above are correct?

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

- 25. Common equity tier 1 (CET1) ratio refers to which of the following?
  - (a) Ratio of bank's core capital against its risk-weighted assets
  - (b) Ratio of banks total capital and total liabilities
  - (c) Ratio of governments equities with its assets
  - (d) Ratio of governments liabilities with its equities
- 26. With reference to the Steel Production in India, which of the following statements is/are correct?
  - 1. India is the World's 2nd Largest Producer of Crude Steel.
  - 2. India has set the targets of achieving the total crude steel capacity of 300 MTPA by 2030-31. Select the correct answer using the code given below:
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
- 27. With reference to Minimum Support Price, which of the following statements is/are correct?
  - 1. MSPs have no statutory backing and it can not be demanded as a matter of right.
  - 2. The Centre announces the MSP for 20 mandated crops.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 28. Which of the following are Instruments of Monetary Policy of Reserve Bank of India?
  - 1. Marginal Standing Facility
  - 2. Fine Tuning Operations
  - 3. Open Market Operations
  - 4. Taxation

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 1 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2, 3 and 4
- 29. With reference to the Government Security (G-Sec), consider the following statements:
  - 1. It is a tradable instrument issued by the Union Government only.
  - 2. Treasury Bills have a maturity of one year or more.

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
- 30. Kudankulam nuclear power plant is being built in Tamil Nadu with the technical assistance of which of the following countries?
  - (a) France
  - (b) Japan
  - (c) Russia
  - (d) Germany
- 31. With reference to the Lithium, consider the following statements:
  - 1. It is a highly reactive metal due to its position in the alkali metal group.
  - 2. Lithium ion batteries are used in smartphones, laptops, and electric vehicles.

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**

#### (a)

Statement 1 is correct: Index of Industrial Production (IIP) is a composite indicator that measures the short-term changes in the volume of production of a basket of industrial products during a given period with respect to that in a chosen base period.

Statement 2 is not correct: With the inception of the Central Statistical Organization (now known as National Statistics Office (NSO)) in 1951, the responsibility for compilation and publication of IIP was vested with it, under the Ministry of Statistics and Programme Implementation.

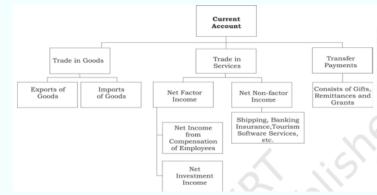
Statement 3 is not correct : Base year: 2011-2012

- Sources of data:NSO compiles the Index of Industrial Production (IIP) using secondary data received from 14 source agencies in various Ministries/Departments or their attached/subordinate offices.
- The Department of Industrial Policy and Promotion (DIPP) is the source for the major chunk of data for the calculation.

#### (d)

**In News :** India's current account deficit (CAD) narrowed sharply to 1 per cent of GDP in the second quarter (Q2) of FY24 against 3.8 per cent in the year-ago quarter due to lower merchandise trade deficit.

- Current Account is the record of trade in goods and services and transfer payments
  - CAD occurs when the value of imports of goods and services is greater than the value of exports of goods and services



[Note : Multilateral and Bilateral Loans are component of Capital Account]

(a)

Fiscal deficit refers to the amount by which a government's spending exceeds its revenue in a given fiscal year, leading to increased borrowing and accumulation of debt.

- It represents the amount of borrowing required by the government to meet its spending obligations when its expenses surpass its income. So, Option A is correct.
- Option A B is incorrect because the fiscal deficit can be positive if the government's revenue is greater than its expenditure.
- Option A C is also incorrect because the fiscal deficit cannot be claimed to be a sign of a developing economy only as developed countries also experience a fiscal deficit.
- Option A D is also incorrect as the fiscal deficit can also be financed both through external as well as domestic borrowing.

### (b)

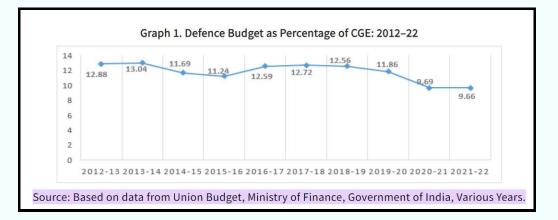
When the central bank retains the stance of the monetary policy as 'withdrawal of accommodation', it will be focused on curbing money supply in the economy.

• An accommodative stance of the RBI means the central bank is prepared to expand the money supply to boost economic growth while withdrawal of accommodation means reducing the money supply in the system to control inflation in the economy.

### (d)

Both the Statements are not correct.

- India spends around 2.5% of GDP on defense (2022) and 60% of which is spent on imports of arms and ammunition.
- India's defense budget, as a percentage of CGE (Central Government Expenditure), has witnessed a steady decline in the past decade, from nearly 13 percent in 2012–13 to 9.6 per cent in 2021–22.



Both the statements are correct: Textile Industry in India

- Share in Domestic Trade: The domestic apparel & textile industry in India contributes approx. 2.3 % to the country's GDP, 13% to industrial production and 12% to exports.
- Production of Raw Material: China, India and the United States are the top 3 leading cotton producing Nations in the world.
- Amended Technology Upgradation Fund Scheme (ATUFS): In order to promote ease of doing business in the country to achieve the vision of generating employment and promoting exports through "Make in India" with "Zero effect and Zero defect" in manufacturing, ATUFS was launched in 2016 to provide credit linked Capital Investment Subsidy (CIS).

#### (b)

(c)

Statement 1 is not correct and Statement 2 is correct.

Fiat Money

- Fiat money is a government-issued currency that has no backing from a physical commodity like gold or silver.
- It is considered a form of legal tender that can be used to exchange for goods and services.

#### (c )

Anarcho-capitalism: The term was coined by American economist Murray Rothbard, while Belgian economist Gustave de Molinari is considered to be the first anarcho-capitalist.

- Anarcho-capitalism is a political and economic philosophy that advocates for the elimination of government intervention in economic and social affairs.
- It combines elements of anarchism, which opposes government authority, with capitalism, which supports private ownership and free markets.

#### (a)

In order to reap the benefits of demographic dividend, skills have to be imparted because a relatively larger portion of the population falls under the category of the productive labour force when there is the demographic dividend. The 'demographic dividend' provides India with strong advantages for achieving high rates of growth powered by an enlarging working-age population. This represents a huge opportunity for the country to increase productivity by investing in the skills of the working-age population.

#### (c)

Option C is correct: The Reverse Repo Rate is an important Monetary Policy tool used by the Reserve Bank of India (RBI) to control liquidity and inflation in the economy. The interest rate at which the RBI borrows money from banks for the short term is defined as Reverse Repo Rate. The Reverse Repo Rate helps the RBI get money from the banks in times of need. In return, the RBI offers attractive interest rates to them. The banks also voluntarily park excess funds with the central bank as it provides them with an opportunity to earn higher interest on surplus money lying idle.

#### (a)

Statement 1 is correct and Statement 2 is not correct. Context

• The United Nations Office on Drugs and Crime (UNODC) released a report "Southeast Asia Opium Survey 2023: Cultivation, Production and Implications".

#### **Key Findings**

- Myanmar has become the world's top producer of opium, overtaking Afghanistan in 2023.
- Afghanistan, the world's biggest producer for some years, has seen cultivation collapse after the Taliban authorities vowed to end illegal drug production.
- Opium farming in Southeast Asia is due to poverty, lack of government services, challenging macroeconomic environments, instability and insecurity.

#### Opium production in India

- In India, there are about 1 lakh farmers across 22 districts in Madhya Pradesh, Rajasthan, and Uttar Pradesh with a license to cultivate opium.
- The majority of them are from three districts that border Madhya Pradesh and Rajasthan Mandsaur, Neemuch, and Chittorgarh.
  - Together, these districts produce 80% of India's opium.

#### (a)

Statement 1 is correct: The Reserve Bank of India tabulates the rupee's Nominal Effective Exchange Rate (NEER) in relation to the currencies of 36 trading partner countries. Nominal Effective Exchange Rate (NEER) is a weighted index that is, countries with which India trades more are given greater weight in the index.

Statement 2 is correct: The decrease in this index denotes depreciation in rupee's value; an increase reflects appreciation.

Statement 3 is not correct: Nominal effective exchange rate (NEER) don't take into account inflation but Real Effective Exchange Rate (REER) is the weighted average of nominal exchange rates, adjusted for inflation.

#### (c)

Statement 1 is correct:

- Digital India Corporation (DIC): It is a not-for-profit company set up by the Ministry of Electronics and Information Technology (MeitY).
  - It helps countrywide critical digital infrastructure to 'operate, manage and migrate existing projects as well as future projects'.

#### Statement 2 is correct:

• It is currently working on projects of national importance such as Digilocker, Poshan Tracker, MyScheme, Umang, APISetu, NCW, Kisan Sarathi, Academic Bank of Credits, etc., which run on cloud services provided by Amazon Web Services.

#### (b)

The data on Employment and Unemployment is collected through Periodic Labour Force Survey (PLFS) conducted by National Statistical Office (NSO), Ministry of Statistics & Programme Implementation (MoSPI) since 2017-18.

#### **Objectives:**

• To estimate the key employment and unemployment indicators (viz. Worker Population Ratio, Labour Force Participation Rate, Unemployment Rate) in the short time interval of three months for the urban areas only in the 'Current Weekly Status' (CWS).

• To estimate employment and unemployment indicators in both 'Usual Status' (ps+ss) and CWS in both rural and urban areas annually.

(c)

Both the statements are correct: China, India and Indonesia – the three largest coal producers globally – are expected to break output records in 2023.

- These three countries now account for more than 70% of the world's coal production.
- India aims to reach 500 GW of renewable energy capacity by 2030, about three times the current capacity of about 180 GW.

(d)

#### Digital Bharat Nidhi:

• The Telecommunications Bill, 2023 renamed the Universal Service Obligation Fund (USOF), established under the Indian Telegraph Act of 1885 to provide for telecom services in underserved areas, as Digital Bharat Nidhi and allows its use for research and development.

(a)

#### Telecommunications Bill, 2023:

- It proposes the first comprehensive rewrite of telecommunications law, consolidating spectrum rules, right of way, dispute resolution between service providers and the Department of Telecommunications or local governments, and other aspects of telecom regulation into one fresh statute.
- It seeks to repeal the Indian Telegraph Act (1885), Indian Wireless Telegraphy Act (1933) and The Telegraph Wire (Unlawful Possession) Act, 1950.
  - It also amends the Telecom Regulatory Authority of India (TRAI) Act, 1997.

#### Statement 1 is correct:

• Adjudication process: The Union government will appoint an adjudicating officer (must be of the rank of joint secretary and above) to conduct inquiries and pass orders against civil offences under the Bill.

#### Statement 2 is not correct:

- Orders of the adjudicating officer may be appealed before the Designated Appeals Committee (members will be officers of the rank of at least Additional Secretary) within 30 days.
- Appeals against the orders of the Committee, in connection to breach of terms and conditions, may be filed with the Telecom Disputes Settlement and Appellate Tribunal (TDSAT) within 30 days.

(a)

Statement 1 is correct: Value investing refers to a style of investing that involves buying assets such as stocks, bonds, real estate etc. at a price that is below their intrinsic value hoping to sell them at a higher price in the future.

• American economist Benjamin Graham is considered to be the father of this style of investing. Statement 2 is not correct: Efficient market theorists argue that the price at which an asset is traded in the market closely tracks its intrinsic value.

• Efficient market theorists believe that markets are so efficient that all information that is relevant to an asset is quickly reflected in its price, thus offering very little opportunity for value investors to purchase undervalued assets.

(a)

#### Statement 3 is incorrect.

#### About the Self-Regulatory Organisations (SROs):

- An SRO is a non-governmental organisation that sets and enforces rules and standards relating to the conduct of entities in the industry (members) with the aim of protecting the customer and promoting ethics, equality, and professionalism.
- An SRO is expected to address concerns beyond the narrow self-interests of the industry, such as to protect workers, customers or other participants in the ecosystem.
- Regulations, standards, and dispute resolution by an SRO do not replace but supplement existing laws or regulations.
- The recognised SRO serves as a two-way communication channel between its members and the RBI.
- Those entities who are interested in being recognised as SROs will have to apply to the RBI, which issues a letter of recognition.

#### (b)

Rare earth elements are relatively plentiful in the earth's crust, with cerium being the 25th most abundant element. This makes it as abundant as copper.

- Some rare earth elements are actually more abundant in the Earth's crust than popular metals like gold and silver.
- But, because of their geochemical properties, rare earth elements are typically dispersed. This means they are not often found in concentrated enough clusters to make them viable to mine.

#### (d)

#### In News

As per recent report, The Indian startup ecosystem continues to face the prolonged funding winter period.

#### **Funding Winter**

• It refers to a period in which funding for startups becomes more difficult to obtain due to a variety of factors.

It is attributed to a market slowdown and economic volatility on account of the prevailing macroeconomic and geopolitical conditions, which have driven inflation, commodity prices and interest rates.

#### (c)

**In News:** The Union Minister for Power and New & Renewable Energy has approved the scheme for Viability Gap Funding (VGF) for development of Battery Energy Storage Systems (BESS) with capacity of 4,000 megawatts hours (MWh).

Statements 1, 2 and 3 are correct : Cabinet Committee on Economic Affairs (CCEA) in 2005 approved it for Financial Support to PPPs in Infrastructure as a Central Sector Scheme

- It is administered by the Department of Economic Affairs, Ministry of Finance. It aims at supporting infrastructure projects that are economically justified but fall marginally short of financial viability.
- The scheme aims at supporting infrastructure projects that are economically justified but fall marginally short of financial viability. Support under this scheme is available only for infrastructure projects where private sector sponsors are selected through a process of competitive bidding. The total Viability Gap Funding under this scheme will not exceed twenty percent of the Total Project Cost; provided that the Government or statutory entity that owns the project may, if it so decides,

provide additional grants out of its budget, upto a limit of a further twenty percent of the Total Project Cost.

• VGF under this Scheme is normally in the form of a capital grant at the stage of project construction.

#### (d)

Statement 1 is not correct: Periodic Labour Force Survey (PLFS) is published by the Ministry of Statistics and Programme Implementation.

- Statement 2 is not correct: Labour Force Participation Rate (LFPR): LFPR is defined as the percentage of persons in labour force (i.e. working or seeking or available for work) in the population.
- Worker Population Ratio (WPR): WPR is defined as the percentage of employed persons in the population.

#### (b)

**In News:** The Reserve Bank of India (RBI) released a draft 'Licensing Framework for Authorised Persons (APs)' under Foreign Exchange Management Act (FEMA), 1999.

Statements 1 and 2 are correct : The Parliament has enacted the Foreign Exchange Management Act, 1999 to replace the Foreign Exchange Regulation Act, 1973.

- It is a civil law enacted to consolidate and amend the laws relating to facilitate external trade and payments and to promote the orderly development and maintenance of foreign exchange market in India.
- ED has been given the responsibility to conduct investigation into suspected contraventions of foreign exchange laws and regulations, to adjudicate and impose penalties on those adjudged to have contravened the law

Statement 3 is not correct : FEMA extends to the whole of India and also applies to all branches, offices and agencies outside India owned or controlled by a person resident in India.

• It is also applicable to any contravention committed outside India by any person to whom this Act is applicable.

#### (a)

About the Common equity tier 1 (CET1) ratio:

- CET1 ratio compares a bank's core capital against its risk-weighted assets to determine its ability to withstand financial distress.
  - The core capital of a bank includes equity capital and disclosed reserves such as retained earnings.

## (c)

Both the Statements are correct.

Present status of Steel Industry in India

- India currently ranks as the World's 2nd Largest Producer of Crude Steel, surpassing Japan in 2018.
- The cumulative production of crude steel was 94.01 Million Tonnes (MT), during April-November 2023.
- The consumption of finished steel jumped 14% to 86.97 MT on an annual basis during April-November 2023.
- The installed steel manufacturing capacity of India is around 161 MT.
- Finished steel imports into India showed a growth of 18% to 5.87 MT in January-November 2023 from 4.96 MT in the same period of 2022.

- Exports from India showed a decline of 20% to 6 MT in January-November 2023 from 7.46 MT in the same period of 2022.
- National Steel Policy 2017 (NSP 2017): India has set the targets of achieving the total crude steel capacity of 300 MTPA and total crude steel demand/production of 255 MTPA by 2030-31.

#### (a)

Statement 1 is correct and Statement 2 is not correct.

#### What is MSP?

- Minimum Support Price (MSP) is a form of market intervention by the Government of India to insure agricultural producers against any sharp fall in farm prices.MSP protects the producer-farmers against distress sale during bumper production years.
- MSPs have no statutory backing a farmer cannot demand MSP as a matter of right.

#### **Crops Covered**

- The Centre announces the MSP for 22 mandated crops. These include:
  - 14 kharif crops (paddy, jowar, bajra, maize, ragi, tur/arhar, moong, urad, groundnut, soyabean, sunflower, sesamum, niger seed, cotton),
  - o 6 rabi crops (wheat, barley, gram, masur/lentil, rapeseed and mustard, and safflower) and
  - 2 commercial crops (jute and copra).
- In addition, MSP for Toria and de-husked coconut is also fixed on the basis of MSPs of rapeseed & mustard and copra respectively.

#### Fair and Remunerative Price (FRP)

- FRP is the minimum price at which the sugar mills purchase sugarcane from farmers.
- The Cabinet Committee of Economic Affairs announces the FRP on the recommendations of CACP.

#### (b)

**In News:** The Reserve Bank of India adjusted its liquidity management tools SDF and MSF as part of monetary policy review.

#### Liquidity Management Tools of RBI

- Under the Reserve Bank of India, Act,1934 (RBI Act,1934) (as amended in 2016), RBI is entrusted with the responsibility of conducting monetary policy in India with the primary objective of maintaining price stability while keeping in mind the objective of growth.
- There are several direct and indirect instruments that are used for implementing monetary policy.
  - Standing Deposit Facility (SDF) Rate
  - Marginal Standing Facility (MSF) Rate
  - Open Market Operations (OMOs):
  - o Bank Rate:
  - Statutory Liquidity Ratio (SLR)
  - Cash Reserve Ratio (CRR)
  - o Reverse Repo Rate
  - Fine Tuning Operations:
  - Marginal Standing Facility (MSF) Rate

[Note: Taxation and Government spending are tools of fiscal policy]

(d)

Both the statements are not correct: What are Government Securities?

- A Government Security (G-Sec) is a tradable instrument issued by the Central Government or the State Governments. It acknowledges the Government's debt obligation.
- Such securities are short term (usually called treasury bills, with original maturities of less than one year) or long term (usually called Government bonds or dated securities with original maturity of one year or more).
- In India, the Central Government issues both, treasury bills and bonds or dated securities while the State Governments issue only bonds or dated securities, which are called the State Development Loans (SDLs).

#### (c)

India and Russia signed some "very important" agreements related to the construction of the future power-generating units of the Kudankulam nuclear power plant. The Kudankulam nuclear power plant, India's largest, is being built in Tamil Nadu with the technical assistance of Russia.

- The construction began in March 2002.
- Since February 2016, the first power unit of the Kudankulam NPP has been steadily operating at its design capacity of 1,000 MW.
- The plant is expected to start operating at full capacity in 2027.

#### (c)

Both the statements are correct: Lithium is a chemical element with the symbol Li and atomic number 3.

- It belongs to the alkali metal group of the periodic table and is a soft, silvery-white metal.
- It is a highly reactive metal due to its position in the alkali metal group.
- Applications: Lithium has various industrial applications, most notably in rechargeable lithium-ion batteries.
  - These batteries are widely used in electronic devices such as smartphones, laptops, and electric vehicles.



## **INDIAN POLITY & CONSTITUTION**

- 1. With reference to the Self Help Groups (SHGs) in India, consider the following statements:
  - 1. These are the formal groups of people having varied problems.
  - 2. They promote small savings as a common fund that are kept with the bank.
  - 3. These groups need registration under any Societies Act or State cooperative Act.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 2. With reference to the National Crime Records Bureau (NCRB), which of the following statements is/are correct?
  - 1. It was established in 1986 based on the recommendations of the National Police Commission (1977-1981).
  - 2. It acts as a repository of information on crime and criminals.
  - 3. It functions under the Ministry of Law and Justice.

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. Hattee community, which recently got ST status, belongs to which of the following states?
  - (a) Rajasthan
  - (b) Gujarat
  - (c) Uttarakhand
  - (d) Himachal Pradesh
- 4. Consider the following Statements with reference to Section 6A of Citizenship Act, 1955:
  - 1. Section 6A was inserted into the Citizenship Act, 1955 as part of the Assam Accord, 1985.
  - 2. By this rights and obligations of Indian citizens were granted to foreigners who entered Assam before January 1, 1966, and were "ordinarily resident" in the state.
  - 3. Similar rights were extended to those entering between January 1, 1966, and March 25, 1971, with a restriction on voting for 10 years.

How many of the above statements are correct:

- (a) Only One
- (b) Only Two
- (c) All Three
- (d) None

- 5. Consider the following principles/features:
  - 1. Collegium system
  - 2. Secular character of the Constitution
  - 3. Judicial review
  - 4. Limited power of the parliament to amend the Constitution

How many of the above mentioned are constituted in the Basic structure of the constitution?

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

6. The Particularly Vulnerable Tribal Groups (PVTGs) are a group of tribal communities in India. Which of the following factors are considered for their categorization as PVTGs?

- 1. Pre-agricultural level of technology
- 2. Lack of primary and secondary education
- 3. Economic backwardness
- 4. A declining or stagnant population

Select the correct answer using the code given below:

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

7. With reference to the Transplantation of Human Organs Act 1994, consider the following statements:

- 1. It allows living donations from parents and siblings only.
- 2. It also deals with the prevention of commercial dealings in human organs.

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. Consider the following statements:
  - 1. The National Disaster Response Fund (NDRF) is constituted under Section 46 of the Disaster Management Act, 2005.
  - 2. The Union Government contributes two thirds of State Disaster Response Fund (SDRF) allocation for general category States/UTs.

Which of the above given statements is/are correct?

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

- 9. Consider the following statements:
  - 1. Civil rights are rights that are inherent to all human beings, regardless of nationality, ethnicity, gender, religion, or any other status.
  - 2. Human rights are created and defined by laws within a specific nation.

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. S.R. Bommai vs Union of India is related to which article of the Constitution of India?
  - (a) Article 356
  - (b) Article 280
  - (c) Article 368
  - (d) Article 370

11. With reference to the Suspension of Members of Parliament (MPs), consider the following statements:

- 1. The Speaker of the Lok Sabha or the Chairman of the Rajya Sabha has the authority to suspend members.
- 2. There is a provision in the constitution which states that the suspended MP can challenge his suspension in the court of law.
- 3. He/she will be eligible to give notice for discussion or submission.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 12. Which of the following states enjoy the special provisions under the Article 371 of the Indian Constitution?
  - 1. Meghalaya
  - 2. Andhra Pradesh
  - 3. Goa
  - 4. Sikkim

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2, 3 and 4 only
- (c) 1, 2 and 3 only
- (d) 1, 2, 3 and 4
- 13. Which of the following statements are correct about delimitation in India?
  - 1. Article 327 empowers Parliament to make laws related to the delimitation of constituencies.
  - 2. Articles 330 and 332 guarantee reservation of seats for Scheduled Castes (SCs) and Scheduled Tribes (STs) in Parliament and State Legislative Assemblies during delimitation.

3. The government has constituted delimitation commissions after every census since independence. Select the correct answer using the code given below:

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

14. With reference to the Food Corporation of India (FCI), consider the following statements :

- 1. FCI is the only agency which undertakes procurement of wheat and paddy.
- 2. It is a statutory body under the Ministry of Consumer 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

15. Geological Survey of India is an attached office of which one of the following ministries?

- (a) Ministry of Science & Technology
- (b) Ministry of Earth Sciences
- (c) Ministry of Coal
- (d) Ministry of Mines
- 16. With reference to the North-Eastern Council, consider the following statements:
  - 1. It is the statutory body established for the economic and social development of Sixth Schedule areas in the North-Eastern States.
  - 2. The council is headed by the Prime Minister.

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. The 'Jan Vishwas (Amendment of Provisions) Act, 2023' was recently passed in Indian Parliament, is related to which of the following:
  - (a) Postal Services
  - (b) Restoration of Statehood of Jammu and Kashmir
  - (c) Goods and Services Tax (GST)
  - (d) Bharatiya Nyaya Sanhita
- 18. With reference to the disqualification of legislatures in India, consider the following statements:
  - 1. It comes under the Tenth Schedule and is decided by the President of India.
  - 2. It can be reversed if a higher court grants a stay on the conviction.

Which of the statements given above is/are correct?

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

- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 19. With reference to the Bharatiya Nyaya (Second) Sanhita Bill (BNSS) which was recently passed by the Parliament of India, consider the following statements:
  - 1. Sedition is no longer an offence mentioned in the Bill.
  - 2. It defines a child to mean a person below the age of 18.
  - 3. It considers the recommendations made by the Justice Verma Committee of 2013.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 20. With reference to the Bharatiya Nagarik Suraksha (Second) Sanhita Bill (BNSSS) recently passed by the Parliament of India, consider the following statements:
  - 1. It replaced the Code of Criminal Procedure, 1898.
  - 2. Production of electronic communication devices are not allowed for investigation, inquiry, or trial. 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 the Bharatiya Sakshya (Second) Bill (BSS) recently passed by the Parliament of India, consider the following statements:
  - 1. It replaced the Indian Evidence Act (1872).
  - 2. The electronic records are categorised as secondary evidence under the Bill.

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 Public Accounts Committee, which of the following statements is/are correct?

- 1. The committee was set up first in 1921 under the provisions of the Government of India Act of 1919.
- 2. A minister cannot be elected as a member of the committee.

Select the correct answer using the code given below:

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

- 23. Traffic in human beings and begar and other similar forms of forced labour are prohibited under which of the following Articles of the Constitution of India?
  - (a) Article 21
  - (b) Article 22
  - (c) Article 23
  - (d) Article 24
- 24. With reference to the Particularly Vulnerable Tribal Groups (PVTGs), consider the following statements:
  - 1. There are 75 PVTGs in India, spread over 28 States and the Union Territory of Andaman & Nicobar Islands.
  - 2. Jharkhand has the largest population of PVTGs.
  - 3. In 1973, the Dhebar Commission created Primitive Tribal Groups (PTGs) as a separate category. How many statements given above are correct?
  - (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
- 25. With reference to the appointment of high court judges, which of the following statements is/are correct?
  - 1. The judges of a high court are appointed by the President of India.
  - 2. The Constitution has not prescribed a minimum age for appointment as a judge of a high court. Select the correct answer using the code given below:
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
- 26. Which of the following statements about Tribunals in India is/are correct?
  - 1. Article 323A empowered Parliament to constitute administrative Tribunals both at central and state level.
  - 2. The Provision of Tribunals was incorporated by the 44th Amendment of the Constitution in 1976.
  - 3. The National Green Tribunal was established in 2010 and is a Constitutional body.

How many statements given above are correct?

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

## **EXPLANATIONS**

#### 1. (a)

Statement 1 is not correct: Self Help Groups (SHGs) are informal groups of poor people having similar problems. They help each other to solve their problems.

Statement 2 is correct: SHGs promote small savings among their members that are kept with the bank as a common fund in the name of the SHG. The SHG gives small loans to its members from its common fund.

Statement 3 is not correct: Registration for Self Help Groups under any Societies Act, State cooperative Act or a partnership firm is not mandatory.

#### 2. (a)

About National Crime Records Bureau (NCRB)

- Statement 1 and 2 are correct: NCRB is responsible for collecting and analyzing crime data as well as maintaining national databases related to crime and criminals.
  - It was established in 1986 based on the recommendations of the National Police Commission (1977-1981) and the MHA's Task Force (1985).
  - The NCRB acts as a repository of information on crime and criminals so that law enforcement agencies and policymakers can use this data for better planning and decision-making.
- It operates under the Ministry of Home Affairs. Hence, Statement 3 is not correct.

#### 3. (d)

#### About the Hattis:

- The Hattis are a community from Himachal Pradesh who got their name from their tradition of selling homegrown vegetables, crops, meat and wool etc. at small markets called 'haat' in towns.
- The Hatti community is cut off from Sirmaur of Himachal by Giri river and Tons river divides it from the Jaunsar Bawar area of Uttarakhand.
- The Hattis are governed by a traditional council called Khumbli, which like the khaps of Haryana, decide community matters.
  - The Khumbli's power has remained unchallenged despite the establishment of the panchayati raj system.

#### 4. (c)

Section 6A was inserted into the Citizenship Act, 1955 as part of the Assam Accord,1985. Hence, Statement 1 is correct.

#### Provisions of Section 6A of the Citizenship Act, 1955

- By this rights and obligations of Indian citizens were granted to foreigners who entered Assam before January 1, 1966, and were "ordinarily resident" in the state.
- Similar rights were extended to those entering between January 1, 1966, and March 25, 1971, with a restriction on voting for 10 years.

Hence, both Statement 2 and 3 are correct.

#### 5. (c)

Basic structure of the constitution consists of following principles:

- Supremacy of the Constitution
- Republican and Democratic forms of Government

- Secular character of the Constitution
- Separation of powers between the Legislature, the executive and the judiciary
- Federal character of the Constitution
- Rule of law
- Judicial review
- Parliamentary system
- Harmony and balance between the Fundamental Rights and DPSP
- Free and fair elections
- Limited power of the parliament to amend the Constitution, etc.

#### 6. (c)

#### About PVTGs:

- PVTGs are the most marginalized and extreme backward sections among Scheduled Tribes (STs).
- The criteria for identifying Particularly Vulnerable Tribal Groups are: -
  - 1. Pre-agricultural level of technology,
  - 2. Low level of literacy,
  - 3. Economic backwardness,
  - 4. A declining or stagnant population.

#### 7. (b)

Statement 1 is not correct: Transplantation of Human Organs Act 1994: It allows living donations, in most cases, from close relatives such as parents, siblings, children, spouse, grandparents, grandchildren.

• Statement 2 is correct: It is aimed at regulation of removal, storage and transplantation of human organs for therapeutic purposes and for prevention of commercial dealings in human organs.

#### 8. (a)

Statement 1 is correct: NDRF: The National Disaster Response Fund (NDRF), constituted under Section 46 of the Disaster Management Act, 2005, supplements SDRF of a State, in case of a disaster of severe nature, provided adequate funds are not available in SDRF.

Statement 2 is not correct: SDRF: The State Disaster Response Fund (SDRF), constituted under Section 48 (1) (a) of the Disaster Management Act, 2005

- It is the primary fund available with State Governments for responses to notified disasters.
- The Central Government contributes 75% of SDRF allocation for general category States/UTs and 90% for special category States/UTs (NE States, Sikkim, Uttarakhand, Himachal Pradesh, Jammu and Kashmir). The annual Central contribution is released in two equal installments as per the recommendation of the Finance Commission.
  - SDRF shall be used only for meeting the expenditure for providing immediate relief to the victims.
- Disaster (s) covered under SDRF: Cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloudburst, pest attack, frost and cold waves.

#### 9. (d)

Both the statements are incorrect: What are Human Rights?

- Human rights are rights that are inherent to all human beings, regardless of nationality, ethnicity, gender, religion, or any other status.
- These rights are considered universal, inalienable, and indivisible, forming the foundation for human dignity, equality, and justice.

- Human rights are different from the Civil rights that are created and defined by laws within a specific nation.
  - Civil rights are legal rights granted and protected by a government, and they may change over time as laws are amended or updated.

#### 10. (a)

#### SR Bommai Judgment

- Background: In 1989, the Union government dismissed the Karnataka government by imposing President's rule.
  - The Karnataka Governor recommended to the President that he take over the state's administration.
- SC Verdict: The SC unanimously held that the President's proclamation can be subject to judicial review on grounds of illegality, malafide, extraneous considerations, abuse of power, or fraud.
  - While the President's subjective appraisal of the issue cannot be examined, the material relied on for making the decision can be reviewed.

#### 11. (a)

Statement 1 is correct: The suspension of Members of Parliament (MPs) is a disciplinary action taken against members who violate the rules and decorum of the Parliament.

• Who: The Speaker of the Lok Sabha or the Chairman of the Rajya Sabha has the authority to suspend members.

Statement 2 and 3 are not correct: Can Courts Intervene in a matter of Suspension of MPs?

- Article 122 of the Constitution says parliamentary proceedings cannot be questioned before a court.
- In some cases, however, courts have intervened in the procedural functioning of legislatures.

#### **Restrictions on MPs After Suspension**

- Suspended MPs are prohibited from entering the premises of the House during the period of suspension. This means they cannot participate in debates, discussions, or voting.
- Suspended MPs may lose certain parliamentary privileges during the suspension, such as the right to attend committee meetings or participate in other parliamentary activities.
- He will not be eligible to give notice for discussion or submission.
- He loses the right to get a reply to his questions.

#### 12. (b)

States that Enjoy the Special Provisions Under the Article 371 of the Indian Constitution

- Article 371A: Special provisions for Nagaland
- Article 371B: Special provisions for Assam
- Article 371C: Special provisions for Manipur
- Article 371D: Special provisions for Andhra Pradesh
  - Grants the president certain special powers over the state government, including ensuring reservation in employment and education.
- Article 371F: Special provisions for Sikkim
  - The members of the Legislative Assembly of Sikkim shall elect the representative of Sikkim in the House of the People.
- Article 371G: Special provisions for Mizoram
- Article 371H: Special provisions for Arunachal Pradesh
- Article 371I: Special provisions for Goa

- Goa state assembly has special powers to make laws on sale of land, ownership of property.
- Article 371J: Special provisions for Karnataka.

#### 13. (a)

#### Statement 1 and 2 are correct.

- Article 327 empowers Parliament to make laws related to the delimitation of constituencies, which cannot be questioned in a court of law.
  - Based on this, the government forms an independent delimitation commission headed by a retired Supreme Court judge to avoid qualitative dilution.
- Articles 330 and 332 guarantee reservation of seats for Scheduled Castes (SCs) and Scheduled Tribes (STs) in Parliament and State Legislative Assemblies during delimitation.

#### Statement 3 is incorrect.

- Delimitation of constituencies needs to be carried out regularly based on the decennial Census to maintain equality of the vote value as far as practicable.
  - The government has constituted four delimitation commissions so far: in 1952, 1962, 1972 and 2002.

#### 14. (b)

Statement 1 is not correct: The food corporation of India (FCI), the nodal central agency of the Government of India, along with other state agencies undertake procurement of wheat and paddy under the price support scheme.

Statement 2 is correct: It is a statutory body under the Ministry of Consumer Affairs, Food and Public Distribution, Government of India. Its top official is designated as Chairman. It was set up in 1965 with its Initial headquarters at Chennai.

#### 15. (d)

#### **Ministry of Mines**

#### **Geological Survey of India**

- GSI was set up in 1851. It is an attached office of the Ministry of Mines.
- Headquartered: Kolkata
- Functions: Creation and updation of national geoscientific information and mineral resource assessment.
  - It also emphasizes on systematic documentation of all geological processes, both surface and subsurface, of India and its offshore areas.
- Methods employed: These objectives are achieved through ground surveys, air-borne and marine surveys, mineral prospecting and investigations, multi-disciplinary geoscientific, geo-technical, geo-environmental and natural hazards studies, glaciology, seismo-tectonic study and carrying out fundamental research.

#### 16. (a)

Statement 1 is correct: North-Eastern Council (NEC) is the statutory body established after amending the North-Eastern Council Act, 1971 in the year 2002. It is the nodal agency for economic and social development of 8 North Eastern Region States of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura. Hence, statement 1 is correct.

Statement 2 is not correct: The Home Minister is the ex-officio chairperson of the Council. The DoNER Minister is the Vice-Chairman. The council has Governors and Chief Ministers of all eight northeastern states as its members.

17. (a)

Parliament of India passed the Post Office Bill, 2023 to replace the Indian Post Office Act, 1898.

- It has one of the features like Removal of offences and penalties.
  - It specified various offences and penalties, all of which were removed by the Jan Vishwas (Amendment of Provisions) Act, 2023.
  - The Bill does not provide for any offences or consequences, except one. Amounts not paid by a user will be recoverable as arrears of land revenue.

## 18. (b)

## Statement 1 is not correct:

- Disqualification under the Tenth Schedule: It is decided by the Chairman in the case of Rajya Sabha and the Speaker in the case of Lok Sabha (and not by the President of India).
  - The Supreme Court of India, in 1992, ruled that the decision of the Chairman/Speaker in this regard is subject to Judicial Review.

## Statement 2 is correct:

• Reversal of Disqualification: The disqualification can be reversed if a higher court grants a stay on the conviction or decides the appeal in favour of the convicted lawmaker.

## 19. (b)

The Bharatiya Nyaya (Second) Sanhita Bill (BNSS) replaced the Indian Penal Code (IPC), 1860, and it has 358 sections instead of 511 in the IPC.

• However, it retains most offences from the IPC, and adds community service as a form of punishment.

## Statement 1 is correct:

- Sedition: It is no longer an offence. Instead, there is a new offence for acts endangering the sovereignty, unity and integrity of India.
- Rajdroha (sedition or offence against the government) has been replaced with Deshdroha (offence against the nation or country).

## Statement 2 is correct:

- It defines a child to mean a person below the age of 18. However, for several offences, the age threshold of the victim for offences against children is not 18.
  - Age of criminal responsibility is retained at seven years. It extends to 12 years depending upon the maturity of the accused.

# Statement 3 is not correct:

- BNSS retains the provisions of the IPC on rape and sexual harassment, and does not consider recommendations of the Justice Verma Committee (2013) such as making the offence of rape gender neutral and including marital rape as an offence.
  - Justice Verma Committee was constituted to recommend amendments to the Criminal Law so as to provide for quicker trial and enhanced punishment for criminals accused of committing sexual assault against women.

# 20. (a)

# Statement 1 is correct:

• The Bharatiya Nagarik Suraksha (Second) Sanhita Bill (BNSSS): It replaced the Code of Criminal Procedure, 1898, having 531 sections, and it enabled Zero FIR nationwide. It provides for the procedure for arrest, prosecution, and bail.

# Statement 2 is not correct:

• Use of Technology: All trials, inquiries, and proceedings may be held in electronic mode. Production of electronic communication devices, likely to contain digital evidence, are allowed for investigation, inquiry, or trial.

## 21. (a)

## Statement 1 is correct:

- The Bharatiya Sakshya (Second) Bill (BSS): It replaced the Indian Evidence Act (IEA), 1872, by incorporating 170 sections and expanding the definition of documents to include electronic records.
  - However, it retains most provisions of the IEA including those on confessions, relevancy of facts, and burden of proof.

## Statement 2 is not correct:

- The BSB expands secondary evidence to include oral and written admissions, and the testimony of a person who has examined the document and is skilled in the examination of documents.
- The IEA provides for two kinds of evidence: Documentary and Oral.
  - Documentary evidence includes primary (original documents) and secondary (that proves the contents of the original).
  - Under the IEA, electronic records are categorised as secondary evidence, but the BSB classified these as primary evidence.

## 22. (c)

## Both the Statements are correct.

## **Public Accounts Committee**

- The committee was set up first in 1921 under the provisions of the Government of India Act of 1919.
- It consists of 22 members, 15 from the Lok Sabha and 7 from the Rajya Sabha.
- The members are elected by the Parliament every year from amongst its members according to the principle of proportional representation by means of the single transferable vote.
- A minister cannot be elected as a member of the committee. The term of office of the members is one year.
- The function of the committee is to examine the annual audit reports of the Comptroller and Auditor General of India (CAG), which are laid before the Parliament by the President.

# 23. (c)

Article 23(1) in The Constitution Of India 1949 says, "Traffic in human beings and beggars and other similar forms of forced labour are prohibited and any contravention of this provision shall be an offence punishable in accordance with law."

# 24. (a)

Statement 1 and 2 are not correct and Statement 3 is correct.

# Particularly Vulnerable Tribal Groups (PVTGs)

- These are a more vulnerable group among tribal groups in India. These groups have primitive traits, geographical isolation, low literacy, zero to negative population growth rate and backwardness.
- There are 75 PVTGs in India, spread over 18 States and the Union Territory of Andaman & Nicobar Islands.
  - Odisha has the largest population of PVTGs followed by Madhya Pradesh.

• **Examples:** Great Andamanese (Andaman and Nicobar Islands), Bondo Poraja (Odisha), Paniyas (Kerala), Kattunayakan (Tamil Nadu and Kerala), Bonda (Odisha).

## **Recognition to PVTGs**

- In 1973, the Dhebar Commission created Primitive Tribal Groups (PTGs) as a separate category.
- In 1975, the Indian government initiated the identification of the most vulnerable tribal groups, designating them as PVTGs, with an initial declaration of 52 such groups.
- An additional 23 groups were included in this category in 1993.

# 25. (c)

## Both the statements are correct.

## **Appointment of Judges: Constitutional Provision**

- According to Article 217, the judges of a high court are appointed by the President.
- The chief justice is appointed by the President after consultation with the chief justice of India and the governor of the state concerned.
- For appointment of other judges, the chief justice of the concerned high court is also consulted.
  - In case of a common high court for two or more states, the governors of all the states concerned are consulted by the president.
- The Constitution has not prescribed a minimum age for appointment as a judge of a high court.

## 26. (a)

# The Tribunal System in India

- The incorporation of tribunals into the Indian legal system can be traced back to the 42nd Amendment of the Constitution in 1976. The Amendment introduced the term "tribunal" into the Constitution through Articles 323A and 323B.
- Constitutional Provisions:
  - Article 323A empowered Parliament to constitute administrative Tribunals (both at central and state level) for adjudication of matters related to recruitment and conditions of service of public servants.
  - Article 323B specified certain subjects (such as taxation and land reforms) for which Parliament or state legislatures may constitute tribunals by enacting a law.
  - In 2010, the Supreme Court clarified that the subject matters under Article 323B are not exclusive, and legislatures are empowered to create tribunals on any subject matters under their purview as specified in the Seventh Schedule of the Constitution.
- The National Green Tribunal (NGT) was established in 2010. It is Headquartered in New Delhi. It handles the cases pertaining to environmental issues. It is a statutory body, established by an act of Parliament and not a Constitutional body.

#### 

# **GEOGRAPHY**

- 1. Which of the following group of landforms are coastal erosional landforms?
  - (a) Arches, caves, stacks and stumps
  - (b) Arches, caves, beaches and dunes
  - (c) Beaches, Dunes, stacks and stumps
  - (d) Spit, Tombolo, stacks and stumps
- 2. With reference to Kenya, which of the following statements is/are correct?
  - 1. The country is bisected horizontally by the Tropic of Cancer.
  - 2. The country is bordered by Lake Victoria to the west and the Pacific Ocean to the east. Select the correct answer using the code given below:
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
- 3. With reference to Nine Dash Line, consider the following statements:
  - 1. It is an imaginary, vague line which represents Chinese claims over the South China sea.
  - 2. Main dispute is around the resource-rich region surrounding Paracel and Spratly islands.
  - 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. Gevra coal mine, sometimes mentioned in the news, is located in which of the following Indian states?
  - (a) Odisha
  - (b) Jharkhand
  - (c) Chhattisgarh
  - (d) Assam
- 5. With reference to the Mississippi River, consider the following statements:
  - 1. It is the second-longest river of North America.
  - 2. The river drains into the Gulf of Mexico.
  - 3. River Ohio is the longest tributary of the Mississippi River.

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 6. With reference to cities located on river bank, Consider the following pairs :

#### Cities

1.

3.

## River

Mississippi

Budapest :

2. Basel

- Rhine
- Vienna : Danube

:

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

7. With reference to Antarctica which of the following statements is/are correct?

- 1. Antarctica is the fifth largest continent of the world.
- 2. Maitri and Himadri are the research stations of India at Antarctica.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 8. Mount Erebus, the southernmost active volcano on Earth, is located at which of the following places?
  - (a) Auckland Island, New Zealand
  - (b) K'gari Island, Australia
  - (c) Ross Island, Antarctica
  - (d) Kiribati Island
- 9. Which of the following countries are part of the Golden Crescent, infamous for opium production?
  - (a) Afghanistan, Iran, and Iraq
  - (b) Myanmar, Laos, and vietnam
  - (c) Afghanistan, Iran, and Pakistan
  - (d) Malaysia, Laos, and Thailand
- 10. With reference to Kosasthalaiyar River, which of the following statements is/are correct?
  - 1. The River rises at Talakaveri in the Brahmagiri range in the Western Ghats, Karnataka.
  - 2. River Pranhita and Purna are the major tributaries of the river.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 11. Which of the following water bodies are connected by the Strait of Hormuz?
  - (a) Red Sea and Gulf of Oman
  - (b) Persian Gulf and Gulf of Oman
  - (c) Red Sea and Gulf of Aden

- (d) Persian Gulf and Gulf of Aden
- 12. With reference to the Godavari river, which of the following statements is/are correct?
  - 1. The River rises at Trimbakeshwar, Maharashtra in the Western Ghats.
  - 2. River Pranhita and Purna are the major tributaries of the river.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 13. In which of the following countries Duqm port is located?
  - (a) Djibouti
  - (b) Indonesia
  - (c) Oman
  - (d) Iran
- 14. Which of the following countries borders the Red Sea?
  - (a) Egypt, Djibouti and Ethiopia
  - (b) Saudi Arabia, Niger and Ethiopia
  - (c) Egypt, Djibouti and Eritrea
  - (d) Egypt, Saudi Arabia, and Niger
- 15. The recently erupted Grindavik volcano, is located in which of the following countries?
  - (a) Iceland
  - (b) Greenland
  - (c) Norway
  - (d) Sweden
- 16. Which of the following water bodies are connected by the Bab-el-Mandeb Strait ?
  - (a) Red Sea and Gulf of Oman
  - (b) Persian Gulf and Gulf of Oman
  - (c) Red Sea and Gulf of Aden
  - (d) Persian Gulf and Gulf of Aden

17. Fagradalsfjall volcano, recently seen in the news, is located in which of the following countries?

- (a) Japan
- (b) Indonesia
- (c) Philippines
- (d) Iceland
- 18. Consider the following statements:
  - 1. Volcanoes are often found near tectonic plate boundaries, where the Earth's plates interact.
  - 2. Active volcanoes no longer produce eruptions, but might again sometime in the future.

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 Golden Triangle comprises regions of which of the following countries?
  - 1. Cambodia
  - 2. Thailand
  - 3. Laos
  - 4. Myanmar
  - 5. Malaysia

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 2, 4 and 5 only
- (c) 2, 3 and 4 only
- (d) 1, 2 and 5 only
- With reference to the Jute, which of the following statements is/are correct? 20.
  - It can only be grown in sandy and saline soil. 1.
  - 2. The precipitation required for its cultivation is 150-250 cm.

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. Zuari Bridge become fully operational recently, it is related to
  - (a) Kerala
  - (b) Goa
  - (c) Assam
  - (d) Tripura

22. It is a part of Earth's upper atmosphere, which is partially ionized, extending from 100-1000 km. At polar regions it is highly dynamic and acts as a major energy sink for space weather events, and related processes as the magnetic field lines are vertical in this region.

200 Nautical Miles

Which of the following atmospheric layers is described above?

- (a) Troposphere
- (b) Exosphere
- (c) Ionosphere
- (d) Stratosphere
- 23. Consider the following pairs:

|    | Maritime Zone      | Distance from Baseline |
|----|--------------------|------------------------|
| 1. | Contiguous Zone    | 12 Nautical Miles      |
| 2. | Territorial Waters | 24 Nautical Miles      |

- 2. **Territorial Waters**
- 3. Exclusive Economic Zone (EEZ)

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

24. Which of the following countries shares borders with Guinea?

- 1. Senegal
- 2. Mali
- 3. Eritrea
- 4. Sierra Leone
- 5. Liberia
- 6. Tunisia
- 7. Djibouti

Select the correct answer using the code given below:

- (a) 1, 2, 4 and 5 only
- (b) 2, 3, 5, 6 and 7 only
- (c) 1, 3, 4, 6 and 7 only
- (d) 1, 2, 3, 4, 5, 6 and 7
- 25. It is a semi-enclosed, inlet (or extension) of the Indian Ocean between the continents of Africa from Asia. It is connected to the Arabian Sea and the Indian Ocean to the south through the Gulf of Aden and the narrow strait of Bab el Mandeb.

Which of the following seas is described above?

- (a) Philippine Sea
- (b) South China Sea
- (c) Caribbean Sea
- (d) Red Sea
- 26. Which among the following are the Lithium Triangle countries (LTCs)?
  - 1. Brazil
  - 2. Argentina
  - 3. Chile
  - 4. Ecuador
  - 5. Bolivia

Select the correct answer using the code given below:

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

# **EXPLANATIONS**

## 1. (a)

Coastal erosion leads to the formation of a range of landforms which largely depend on the material that forms the cliff.

- More resistant material such as chalk leads to the formation of classic coastal landforms such as arches, caves, stacks and stumps.
- Where there is a combination of hard and soft material this leads to the formation of bays and headlands.
- Beaches, Dunes, Spit and Tombolo are the most common coastal depositional landforms.

## 2. (d)

## Both the statements are not correct.

## News

• The President of Kenya is on a three-day visit to India with an aim to expand overall ties between the two countries.

## Kenya

- The country is bisected horizontally by the Equator and vertically by longitude 38° E.
- Kenya is bordered to the north by South Sudan and Ethiopia, to the east by Somalia and the Indian Ocean, to the south by Tanzania, and to the west by Lake Victoria and Uganda.



## 3. (c)

Statement 1 is correct: Nine-dash line is an imaginary, vague line which represents Chinese claims over the South China sea. This line has led China into border disputes with neighbouring countries including Vietnam, Philippines, Brunei, Malaysia and Taiwan.

Statement 2 is correct: At the heart of the dispute is the resource-rich region surrounding Paracel and Spratly islands. China has led claims over the islands, but they are rejected by the majority of the members of the international community.

# 4. (c)

South Eastern Coalfields Ltd (SECL) uses 'Miyawaki' Plantation Method to Enhance Green Cover in the Gevra coal belt region of Chhattisgarh.

- Gevra coal mine in Chhattisgarh's Korba district is under SECL which is one of the largest coal producing subsidiaries of Coal India Limited.
- SECL aims to include big plants such as Bargad, Peepal, Aam, Jamun etc, medium plants such as Karanj, Amla, Ashok etc, and small plants such as Kaner, Gudhal, Trikoma, Ber, Anjeer, Nimbu etc. using the Miyawaki technique.

## 5. (b)

Statements 1 and 2 are correct and Statement 3 is not correct.

## Mississippi River

- The Mississippi river is the second-longest river of North America. The River lies entirely within the United States.
- Source: Lake Itasca in Minnesota
- Mouth: Gulf of Mexico

## **Major Tributaries**

- Missouri River, Ohio River, Arkansas and Illinois are its Tributaries.
- The longest tributary of the Mississippi River is Missouri River.
- The length of the Missouri River (3,767 km) is slightly longer than the Mississippi river (3,766 km).

# 6. (b)

Pair 1 is incorrectly matched and Pair 2 and 3 are correctly matched.

- Budapest is located on the bank of the Danube river.
- Basel is located on the bank of the Rhine river.
- Vienna is located on the bank of the Danube river.

# 7. (a)

Statement 1 is correct and Statement 2 is not correct.

# Antarctica

- Antarctica is the world's southernmost and fifth largest continent. It is also the world's highest, driest, windiest, coldest, and iciest continent.
- India presently has two research stations at Antarctica namely 'Maitri' and 'Bharati'. Dakshin Gangotri is no longer in operation.

# Himadri

• It is a research station of India in the Arctic.

# 8. (c)

Mount Erebus, located on Antarctica's Ross Island, is the southernmost active volcano on Earth.

# 9. (c)

# Golden Triangle

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

# **Golden Crescent**

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



## 10. (d)

Both the Statements are not correct.

#### Context

• In Ennore, Tamil Nadu Kosasthalaiyar river has witnessed oil spill from the Chennai Petroleum Corporation Limited post Cyclone Michaung.

#### **Kosasthalaiyar River**

- The river originates near Pallipattu in Thiruvallur district in Tamil Nadu and drains into the Bay of Bengal.
- It is a 136-kilometer long river flowing in the Chennai metropolitan area.
- Major tributary: Nagari river.

#### **Cauvery River**

- Origin: The River rises at Talakaveri in the Brahmagiri range in the Western Ghats, Kodagu district of Karnataka.
- Tributaries: Harangi, Hemavati, Kabini, Bhavani, Lakshmana Tirtha, Shimsha, Noyyal, Amaravati and Arkavati.

## 11. (b)

Persian Gulf and Gulf of Oman

## Context

- Recently Oman's head of state, Sultan Haitham bin Tarik is on his first visit to India since becoming Oman's head of State in 2020.
- Oman is at the gateway of Strait of Hormuz through which India imports one-fifth of its oil imports.
- The Strait of Hormuz connects the Persian Gulf and the Gulf of Oman.
- India signed a pact with the country in 2018 to access the Duqm port of Oman.

## 12. (c)

Both the Statements are correct.

## Godavari River

- Origin: The River rises at Trimbakeshwar, Nashik, Maharashtra in the Western Ghats.
- Length: The Godavari River is India's second longest river (Dakshina Ganga) after the Ganga river, with a length 1,465 km.

- Basin: The main river flows through the States of Maharashtra, Telangana, Chhattisgarh, and Andhra Pradesh and drains into the Bay of Bengal.
- The river basin is considered to be divided into 3 sections:
  - Upper: Source to the confluence with Manjira,
  - Middle: Between confluence of Manjira and Pranhita and
  - Lower: Pranhita confluence to mouth.
- Tributaries: Banganga, Purna, Pranhita, Indravati, Pravara, Sindphana, Manjira, Penganga, Wardha, Wainganga, Maner and Sabri.
- Dams: Jayakwadi Dam, Devadula Irrigation Scheme, Polavaram Project etc.

## 13. (c)

Oman

# Context

 Oman's head of state, Sultan Haitham bin Tarik is on his first visit to India since becoming Oman's head of State in 2020.

## Duqm port

- It is located in Oman.
- India signed a pact with the country in 2018 to access the Duqm port of Oman.

## 14. (c)

## Egypt, Djibouti and Eritrea

## Red Sea

- A total of 6 countries of Asia and Africa border the Red Sea, which includes:
- Yemen and Saudi Arabia to the east,
- Egypt to the north and west, and Sudan, Eritrea, and Djibouti to the west.

## 15. (a)

The eruption recently began just north of Grindavik, located on the Reykjanes Peninsula in the southwest of Iceland.



- The Reykjanes Peninsula has not seen volcanic eruptions for the last 800 years. The current Grindavik eruption is the fourth it has experienced in less than three years.
- These eruptions could be a new era of volcanic activity on the peninsula, quoted experts.

## 16. (c)

## Red Sea and Gulf of Aden

## Context

• Recently, the United States has announced the creation of a new multinational task force, named Operation Prosperity Guardian to counter the Houthi threat in the Red Sea.

## Red Sea

- It is a critical waterway that is anchored by two strategic waterways the Suez Canal and the Babel-Mandeb.
- A total of 6 countries of Asia and Africa border the Red Sea-which includes Yemen and Saudi Arabia to the east, Egypt to the north and west, and Sudan, Eritrea, and Djibouti to the west.

## **Bab-el-Mandeb**

- The Bab-el-Mandeb, the Gate of Grief or the Gate of Tears, is a strait between Yemen on the Arabian Peninsula, Djibouti, and Eritrea in the Horn of Africa.
- It connects the Red Sea to the Gulf of Aden.

# 17. (d)

Fagradalsfjall volcano located on the Reykjanes peninsula in southwest Iceland, erupted after weeks of intense earthquakes and tremors.

• Iceland is one of the most volcanically active regions on the planet.

# 18. (a)

Statement 1 is correct: Volcanoes are geological formations on the Earth's crust that result from the eruption of magma (molten rock), ash, and gases from beneath the Earth's surface.

Volcanoes are often found near tectonic plate boundaries, where the Earth's plates interact.

Statement 2 is not correct: Volcanoes can be active, dormant, or extinct.

- Active volcanoes are volcanoes that have had recent eruptions or are expected to have eruptions in the near future.
- Dormant volcanoes no longer produce eruptions, but might again sometime in the future.
- Extinct volcanoes will likely never erupt again.

# 19. (c)

Golden Triangle

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

# **Golden Crescent**

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



Statement 1 is not correct and 2 is correct. Conditions Required for Jute Production

- Temperature: A mean maximum and minimum temperature of 34oC and 15oC and a mean relative humidity of 65% are required.
- Rainfall: Around 150-250 cm.
- Soil: Jute can be raised on all kinds of soils from clay to sandy loam, but loamy alluvial soils are best suited.

# 21. (b)

Zuari Bridge is located on the Zuari river at Cortalim village on Margao-Panaji National Highway

- It is a 13.20-kilometer eight-lane bridge across Zuari river .
- It is India's second longest cable-stayed bridge.

# 22. (c)

**In News:** The cold winters and the bright sunny summer of Antarctica holds crucial information in the ionosphere that scientists have traced recently.

- The ionosphere is a part of Earth's upper atmosphere, and is partially ionized.
- It extends from 100-1000 km from the Earth's surface.
- The ionosphere at polar regions is highly dynamic and acts as a major energy sink for space weather events, and related processes in magnetosphere-ionosphere systems as the magnetic field lines are vertical in this region.
- The region is called the "ionosphere", since the energetic solar radiation knocks electrons off molecules and atoms, turning them into "ions" with a positive charge.
- The ionosphere reflects and absorbs radio waves, allowing us to receive shortwave radio broadcasts.

# 23. (a)

Pair 1 is not correctly matched: Contiguous Zone (24 Nautical Miles): Beyond the territorial waters, there is a contiguous zone that extends 24 nautical miles.

- In this zone, Country can take action to prevent or punish infringements on customs, fiscal, immigration, or sanitary laws within its territory or territorial sea.
- Pair 2 is not correctly matched: Territorial Waters (12 Nautical Miles): The territorial waters extend up to 12 nautical miles from the baseline.
  - Within this zone, Country exercises full sovereignty, and it includes the country's coastal areas and ports.

- Pair 3 is correctly matched: Exclusive Economic Zone (EEZ): The EEZ extends up to 200 nautical miles from the baseline.
  - Within this zone, the Country has the exclusive rights for exploring, exploiting, conserving, and managing natural resources, such as fisheries and hydrocarbons.

#### 24. (a)

In News: Several killed and injured after powerful explosion in Guinea

## About Guinea

- The Republic of Guinea, located in western Africa
- It is bounded on the north by Guinea-Bissau, Senegal, and Mali;
  - on the east and south-east by Côte d'Ivoire;
  - on the south by Liberia and Sierra Leone; and
  - o on the west by the Atlantic Ocean.



## 25. (d)

The Red Sea is a semi-enclosed, inlet (or extension) of the Indian Ocean between the continents of Africa from Asia.

- It is connected to the Arabian Sea and the Indian Ocean to the south through the Gulf of Aden and the narrow strait of Bab el Mandeb.
- Bordering Countries: Egypt, Saudi Arabia, Yemen, Sudan, Eritrea and Djibouti.



## Lithium Triangle

- The "Lithium Triangle" refers to a region in South America that contains some of the world's largest lithium reserves.
- This triangular-shaped region encompasses parts of Argentina, Bolivia, and Chile.
- Argentina, Bolivia and Chile are assessed to possess 58 percent of the world's known lithium reserves.



#### 

# **GOVERNMENT SCHEMES/INITIATIVE**

- 1. Which one of the following Indian states recently launched its first 'Bee Tourism'?
  - (a) Sikkim
  - (b) Nagaland
  - (c) Goa
  - (d) Uttarakhand
- 2. The Leadership Group for Industry Transition (LeadIT), was launched by India and which of the following countries?
  - (a) The USA
  - (b) France
  - (c) Sweden
  - (d) Denmark
- 3. Consider the following statements regarding the "Right to Repair" in India:
  - 1. India is the first country in the world to set up the 'Repairability Index' on 5 categories of electronic devices.
  - 2. Government has set up a Right to Repair portal that allows citizens to get their gadgets and vehicles repaired without losing warranty.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 4. Which one of the following bodies released the 'Dynamic Ground Water Resource Assessment Report'?
  - (a) National Water Development Agency
  - (b) Central Ground Water Authority
  - (c) Central Ground Water Board (CGWB)
  - (d) Water Regulatory Authorities in India
- 5. The 'Project BHISHM' sometimes mentioned in the news, is related to which of the following?
  - (a) Border Security
  - (b) Health Initiative
  - (c) Direct Benefit Transfer
  - (d) Population Control
- 6. Consider the following statements with reference to Pradhan Mantri Awas Yojana Urban (PMAY-U) :
  - 1. It is implemented by the Ministry of Housing and Urban Affairs (MoHUA).
  - 2. The Mission provides urban housing units for the EWS and Low-Income Group (LIG) only.
  - 3. The size of a house for Economically Weaker Section (EWS) could be maximum upto 30 sq. mt. carpet area only and cannot be enhanced further.

How many of the above statements are correct:

- (a) Only One
- (b) Only Two
- (c) All Three
- (d) None
- 7. Consider the following statements with reference to Mission Shakti:
  - 1. It is being implemented by NITI Aayog during the 15th Finance Commission period.
  - 2. It has two sub-schemes namely "Sambal" for empowerment of women and "Samarthya" for safety

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 8. What is the primary objective of the BharatNet project?
  - (a) To provide free Wi-Fi hotspots in all Over India.
  - (b) To connect all panchayats in India with high-speed optical fiber networks.
  - (c) To achieve 100% digital literacy in rural areas.
  - (d) To provide telemedicine services to all citizens in India.
- 9. With reference to Adopt a Heritage scheme, which of the following statements are correct?
  - 1. It is a collaborative effort between the Ministry of Culture and NITI Aayog .
  - 2. It envisages development and maintenance of tourist amenities at heritage sites.
  - 3. It is essentially a non-revenue generating project.

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
- 10. With reference to the India Cooling Action Plan (ICAP), which of the following statements is/are correct?
  - 1. The plan was launched in 2019.
  - 2. ICAP seeks to Reduce cooling demand across sectors by 20% to 25% by 2037-38.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 11. With reference to Technology Development Fund (TDF) scheme, consider the following statements :
  - 1. It is a flagship programme of Ministry of Science and Technology
  - 2. It is executed under the 'Make in India' initiative.
  - 3. It focuses on Research and Development of Niche technologies which are being developed for the first time in the country.

How many of the statements given above are correct?

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

12. The Mera Gaon, Meri Dharohar (MGMD) program is an initiative of which of the following ministries?

- (a) Ministry of Tourism
- (b) Ministry of Rural Development
- (c) Ministry of Culture
- (d) Ministry of Panchayati Raj
- 13. With reference to River Cities Alliance (RCA) which of the following statements is/are correct?
  - 1. RCA was initiated under the Ministry of Jal Shakti and Ministry of Housing and Urban Affairs (MoHUA) in 2021.
  - 2. RCA has 142 Indian River cities and Aarhus of Denmark as members.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 14. Which of the following statements about the PM Vishwakarma Scheme is NOT Correct?
  - (a) The scheme is exclusively focused on artisans and craftspeople belonging to the Scheduled Castes (SCs) and Scheduled Tribes (STs).
  - (b) The scheme provides skill development training and financial assistance to upgrade skills and technologies of artisans.
  - (c) The scheme targets beneficiaries from 18 identified traditional crafts and trades.
  - (d) The scheme is administered by the Ministry of Skill Development and Entrepreneurship.
- 15. Which of the following is correct with respect to the 'YUVAi Initiative' recently launched by the government?
  - (a) It is a collaborative initiative of National e-Governance Division (NeGD) and Department of Science and Technology.
  - (b) It is aimed to foster a deeper understanding of Artificial Intelligence to school students across the nation.
  - (c) YUVAi programme will train the students with scientific acumen in Space related technologies in coherence with ISRO.
  - (d) None of the above
- 16. Consider the following statements with reference to Rythu Bandhu Scheme
  - 1. It is proposed by the Government of Bihar for providing Investment Support Agriculture and Horticulture crops.
  - 2. As per the scheme, each farmer gets ₹5,000 per acre each season for purchase of seeds and other requirements.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 17. With reference to the Reservation in India, consider the following statements:
  - 1. Indra Sawhney case had ruled that reservation should not exceed 50% without any exception.
  - 2. States are permitted to reserve a total of 50% of the seats/posts including Economically Weaker Section (EWS) reservations.

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 The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 (PoSH), which of the following statements is/are correct?
  - 1. The Act is applicable to all workplaces, including the organized and unorganized sectors.
  - 2. It mandates every district in the country to create a local committee (LC) with 10 or more employees.
  - 3. Woman can file a written complaint within three to six months of the sexual harassment incident. 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 Pradhan Mantri Ujjwala Yojana (PMUY), consider the following statements:
  - 1. Liquified Petroleum Gas [LPG] connection is released in the name of all adult women of the rural family.
  - 2. Decrease in health hazards associated with cooking based on fossil fuel is one of the objectives of the scheme.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 20. Consider the following statements:

Statement-I: The Atal Pension Yojana (APY) is a government-backed pension scheme in India for the unorganized sector.

Statement-II: APY is open to all citizens of India between the ages of 21 and 60 years.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct
- 21. With reference to Jal Jeevan Mission (JJM) consider the following statements:
  - 1. It was launched by the Ministry of Rural Development .
  - 2. The fund sharing pattern between the Centre and states is 50:50 for all states and Union Territories.

Which of the statements given above is/are correct?

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

## 22. Consider the following statements

- 1. Remission of Duties and Taxes on Export Products (RoDTEP) scheme is based on the globally accepted principle that taxes and duties should be exported.
- 2. The countervailing measures in India are administered by the Directorate General of Anti-dumping and Allied Duties under the Ministry of Finance.

Which of the above given statements is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 23. With reference to the Naya Savera Scheme, which of the following statements is/are correct?
  - 1. The scheme was launched by the Ministry of Tribal Affairs in 2007.
  - 2. The candidates must belong to the Scheduled Tribe community only to avail the benefits of the scheme.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 24. Consider the following statements regarding the "Right to Repair" in India:
  - 1. The Right to Repair portal allows citizens to get their gadgets and vehicles repaired without losing warranty.
  - 2. India is the first country in the world to set up the 'Repairability Index'.

Which of the statements given above is/are correct?

(a) 1 only

- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 25. The 'New Delhi Declaration' recently was in news, in context of:
  - (a) Border Issues
  - (b) Artificial Intelligence
  - (c) Trade and Investment
  - (d) Climate Change
- 26. Consider the following statements with reference to the Viksit Bharat Sankalp Yatra .
  - 1. It is the largest-ever outreach initiative of the Government of India.
  - 2. It aims to create awareness among citizens about the stories of National Heroes and the brave hearts.
  - Which of the following statements given above is/are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
- 27. With reference to the Indian Forest & Wood Certification Scheme (IFWCS), consider the following statements:
  - 1. It is designed to promote sustainable forest management and sustainable management of Trees outside Forests in the country.
  - 2. Currently, the certification is applicable on the Trees outside Forests (TOF) plantations on government land only.
  - 3. Indian Forest and Wood Certification Council is the advisory body under the scheme.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 28. With reference to the Pradhan Mantri Bhartiya Janaushadhi Pariyojana, consider the following statements:
  - 1. It was launched in 2008 by the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers.
  - 2. It aims to provide quality medicines free of cost to the masses.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 29. With reference to the 'District Project Societies (DPS)', consider the following statements:

1. These are provided by the 74th Constitutional Amendment Act.

2. These are set up at the district level under the Chairmanship of the Collector/District Magistrate. 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

30. Palna Scheme recently seen in the news, it is a component of which of the following?

- (a) Swadhar Greh Scheme
- (b) Ujjawala Scheme
- (c) Beti Bachao Beti Padhao(BBBP)
- (d) Mission Shakti
- 31. With reference to the Past-Mitro mobile application, which of the following statements is/are correct?
  - 1. The app is developed by Khadi and Village Industries Commission.
  - 2. The app is launched to provide information about MSP and agronomy to jute farmers.

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
- 32. With reference to the Ayushman Bharat Pradhan Mantri- Jan Arogya Yojana (AB PM-JAY), consider the following statements:
  - 1. It provides health cover of Rs. 5 lakhs per family per year for Primary care hospitalization
  - 2. A beneficiary can avail cashless treatment in any empanelled public or private hospital in India.
  - 3. It has provision of pre and post hospitalization expenses.
  - How many statements given above are correct?
  - (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
- 33. With reference to the Bharatmala Pariyojana, consider the following statements:
  - 1. It was launched in 2015 and focuses on optimizing efficiency of freight and passenger movement across the country.
  - 2. Strengthening road connectivity in the northeastern region of India is one of the features of the scheme.

Which of the statements given above is/are correct?

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

- 34. Consider the following statements with reference to the National Transit Pass System (NTPS).
  - 1. It is an online Transit Pass generation system which covers only timber and bamboo.
  - 2. A Transit pass will be valid for the whole India including the northeastern region.
  - 3. It was launched by the Ministry of Road Transport & Highways.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 35. Consider the following statements about the PM-Kisan scheme:
  - 1. It is a Centrally Sponsored Scheme with the centre paying Rs 6000 and the same amount paid by States to eligible farmers.
  - 2. It aims to provide income support to all landholding farmer families in India to supplement their financial needs.
  - 3. The scheme also covers agricultural land that is exploited for nonagricultural purposes.

How many of the statements given above are correct?

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

# **EXPLANATIONS**

# 1. (b)

Nagaland is celebrating the 24th edition of the Hornbill Festival 2023 at the Naga Heritage Village Kisama.

- For the first time, there will be an exhibition featuring the Mithun (the State animal) and Tenyi Vo (a native breed of pig) from the rural Nagaland.
- Nagaland Beekeeping and Honey Mission is launching the first 'Bee Tourism' to showcase Nagaland's rich beekeeping tradition and unique practices carried out across the state.

# 2. (c)

The Leadership Group for Industry Transition (LeadIT) was launched by the governments of Sweden and India at the UN Climate Action Summit in 2019 and is supported by the World Economic Forum.

- Aim: LeadIT members subscribe to the notion that energy-intensive industry can and must progress on low-carbon pathways, aiming to achieve net-zero carbon emissions.
- It gathers countries and companies that are committed to action to achieve the Paris Agreement.
- 3. (b)

'Right to Repair' in India

- Framework Committee:
  - The Ministry of Consumer Affairs (MCA) has set up a committee to come up with a Right to Repair framework.

- The framework is significant as it will give consumers a chance to repair their products at an optimal cost instead of buying new products altogether.
- The important sectors for the initial focus of the framework are farming equipment, mobile phones & tablets, consumer durables, automobiles & automobile equipment.

## Portal:

- The Ministry of Consumer Affairs (MCA) has also set up a Right to Repair portal that allows citizens to get their gadgets and vehicles repaired without losing warranty. Hence statement 2 is correct.
- The portal aggregates all the public information related to products, service, warranty, terms and conditions, etc.

## 'Repairability Index'

- France is the first major country in the world to set up the 'Repairability Index' on 5 categories of electronic devices. Hence statement 1 is incorrect.
- The repairability index is a score out of 10 that each device in the aforementioned categories receives.

# 4. (c)

The 'Dynamic Ground Water Resource Assessment Report' was carried out jointly by the Central Ground Water Board (CGWB) and States/UTs, which can be used for taking suitable interventions by various stake-holders.

- India-Groundwater Resource Estimation System (IN-GRES): It is a web-based application that has been developed by CGWB in association with IIT-Hyderabad.
  - It is a GIS based platform for assessment as well as dissemination of results.
- It provides a common and standardized platform for Groundwater Resource Assessment for the entire country (Central and State Governments).

# 5. (b)

Aarogya Maitri Aid Cube: It is a portable hospital designed indigenously under the Project 'BHISHM' (Bharat Health Initiative for Sahyog Hita and Maitri).

- It has the modular trauma management and aid system which is made up of 72 detachable minicubes.
  - Each mini-cubes being a specialised station for emergency response and humanitarian efforts.

Development: The Aarogya Maitri Cube comes under the 'Aarogya Maitri Project' initiated by the Prime Minister of India and jointly developed by the Ministry of Health, the Ministry of Defence, and the National Security Council.

# 6. (a)

Pradhan Mantri Awas Yojana – Urban (PMAY-U) is implemented by the Ministry of Housing and Urban Affairs (MoHUA). Hence, Statement 1 is correct.

The Mission provides urban housing units for the EWS/(Low-Income Group) LIG and (Middle-Income Group) MIG categories including the slum dwellers by ensuring a pucca house to all eligible urban households by the year 2022. Hence, Statement 2 is not correct.

The size of a house for Economically Weaker Section (EWS) could be upto 30 sq. mt. carpet area, however States/UTs have the flexibility to enhance the size of houses in consultation and approval of the Ministry. Hence, Statement 3 is not correct.

# 7. (d)

Statements 1 and 2 are not correct : The Ministry of Women and Child Development implements 'Mission Shakti', an Integrated Women Empowerment Programme, as Umbrella Scheme for the Safety, Security and Empowerment of Women for implementation during the 15th Finance Commission period. It aims to strengthen interventions for safety, security and empowerment of women in a mission mode through institutional and convergence mechanism for greater efficiency, effectiveness and financial prudence.

• The Umbrella Scheme of Mission Shakti has two sub-schemes namely "Sambal" for safety and security of women and "Samarthya" for empowerment of women.

## 8. (b)

BharatNet, also known as the National Optical Fibre Network (NOFN), aims to provide high-speed broadband connectivity to all Gram Panchayats in India.

- Objective is to enable access providers like mobile operators, Internet Service Providers (ISPs), Cable TV operators, content providers to launch various services such as e-health, e-education and e-governance in rural and remote India.
- The project is being executed by a Special Purpose Vehicle (SPV) namely Bharat Broadband Network Limited (BBNL), which has been incorporated under Indian Companies Act 1956.
- Digital literacy and telemedicine are potential benefits of BharatNet, but they are not the primary goals.

## 9. (b)

**In News:** Deadline for Submission of Applications for the "Adopt a Heritage 2.0" Program has been decided as 31st December 2023 .

Statement 1 is not correct : The 'Adopt a Heritage: Apni Dharohar, Apni Pehchaan' scheme is an initiative of the Ministry of Tourism, in collaboration with the Ministry of Culture and the Archaeological Survey of India.

• It was launched in September 2017 on World Tourism Day .

Statements 2 and 3 are correct :Under it, the government invites entities, including public sector companies, private sector firms as well as individuals, to develop selected monuments and heritage and tourist sites across India.

- The sites/monuments are selected on the basis of tourist footfall and visibility and can be adopted by private and public sector companies and individuals known as Monument Mitras for an initial period of five years.
- Adopt a Heritage' is essentially a non-revenue generating project. It is part of responsible tourism
  where the 'Monument Mitra' essentially spends his CSR funds for upkeep and maintenance etc.,
  and gets limited visibility. The agency was selected on the basis of a unique concept of vision bid
  and no financial bid is involved.
- ASI had launched the "Adopt a Heritage 2.0" programme on 4th September 2023.

# 10. (c)

Both the Statements are correct.

# India Cooling Action Plan (ICAP)

- ICAP was launched in 2019.
- Objective: It provides an integrated vision towards cooling across sectors encompassing inter alia reduction of cooling demand, refrigerant transition, enhancing energy efficiency and better technology options with a 20 year time horizon.
- The India Cooling Action seeks to;

- Reduce cooling demand across sectors by 20% to 25% by 2037-38,
- Reduce refrigerant demand by 25% to 30% by 2037-38,
- Reduce cooling energy requirements by 25% to 40% by 2037-38,
- Recognize "cooling and related areas" as a thrust area of research under national S&T Programme,
- Training and certification of 100,000 servicing sector technicians by 2022-23, synergizing with Skill India Mission.

Statement 1 is not correct and Statements 2 and 3 are correct.

16 defence technologies have been successfully developed/realised under the Technology Development Fund (TDF) scheme.

- Technology Development Fund (TDF) scheme is a program of the Ministry of Defence (MoD).
- TDF scheme executed by DRDO under "Make-in-India" initiative.
- The Government has approved TDF Scheme to encourage participation of public/private industries especially MSMEs and start-ups to design and develop various defense technologies indigenously.
- A Standard Operating Procedure (SOP) of TDF scheme has been formulated and approved by Competent Authority in 2016.
- TDF scheme aims to engage with the private industries especially MSMEs and Start-ups to bring in the culture of Design & Development of Military Technology and support them with Grant in Aid.
- To focus on Research, Design & Development of Niche technologies which are being developed for the first time in the country.

## 12. (c)

# Mera Gaon, Meri Dharohar (MGMD)

- The Ministry of Culture initiated the 'Mera Gaon Meri Dharohar' (MGMD) project under National Mission on Cultural Mapping in coordination with Indira Gandhi National Centre for the Arts (IGNCA).
- Objective: The MGMD program seeks to compile comprehensive information detailing the life, history and ethos of Indian villages and make it available to virtual and real-time visitors.

# 13. (c)

# Both the Statements are correct.

River Cities Alliance (RCA)

- RCA was initiated by NMCG under the Ministry of Jal Shakti, in association with National Institute of Urban Affairs (NIUA) under Ministry of Housing and Urban Affairs (MoHUA) in 2021.
- It is a dedicated platform for river cities across India to discuss & exchange information for sustainable management of urban rivers.
- The Alliance focuses on three broad themes- Networking, Capacity Building and Technical Support.
- RCA has 142 Indian River cities and Aarhus of Denmark as members.

## 14. (a)

# About the PM Vishwakarma Scheme:

- Aim: To support and provide skill-upgradation training to artisans and craftspeople amid a changing economic landscape.
  - The Scheme is not limited to SCs and STs but is open to all traditional artisans and craftspeople across different communities.
- Administered by: The Ministry of Skill Development and Entrepreneurship.

- Around 18 trades and crafts are included under the scheme:
  - These include carpenter, boat-maker, armourer, blacksmith, hammer and tool kit maker, locksmith, goldsmith, potter, sculptor, cobbler, mason, basket-maker, doll and toy-maker, barber, garland maker, washerman, tailor, and fishing net-maker.
- Training: The applicants are thoroughly vetted and then the basic training of five to seven days and advanced training of 15 days will be given.
- Financial Assistance: It also offers financial assistance and creates avenues of "market linkage".
  - A stipend of ₹500 per day is provided during the training.
  - Only after the training they will receive a tool kit incentive of ₹15,000, to purchase modern tools specific to their trade.
  - They will also receive collateral-free loans at lower interest rates of nearly 8% up to ₹1 lakh and an additional ₹2 lakh for setting up their business.

**In News:** YUVAi- Youth for Unnati and Vikas with Al' is set to be prominently featured at the upcoming Global Partnership on Artificial Intelligence (GPAI) Summit.

## About YUVAi Initiative

- It is a collaborative initiative of National e-Governance Division (NeGD), Ministry of Electronics & Information Technology (MeitY), Government of India and Intel India.
- YUVAi is aimed to foster a deeper understanding of AI, to enable school students from class 8 to 12 across the nation with AI skills and empower them to become human-centric designers and users of AI.

## 16. (b)

Statement 1 is not correct : The Rythu Bandhu Scheme is proposed by the Government of Telangana .

• It is the first ever farmer investment support scheme in India .

Statement 2 is correct : It is aimed at providing Investment Support Agriculture and Horticulture crops by way of grant of Rs. 5,000/- per acre per farmer each season for purchase of inputs like Seeds, Fertilizers, Pesticides, Labour and other investments in the field operations of Farmer's choice for the crop season.

## 17. (d)

Both the statements are not correct: The Supreme Court has historically maintained that reservations, whether in jobs or education, should not exceed 50% of the total seats/posts.

- In 1992, SC in the Indra Sawhney case had ruled that reservation should not exceed 50%, barring certain extraordinary situations.
  - Such as to provide reservations to communities which hail from far flung areas of the country and have been kept out of the mainstream of the society. This is not a geographical test but a social one.
- **EWS Judgement:** The Supreme Court upheld the 103rd Constitutional Amendment which provides for 10% additional reservations to the EWS.
  - This means, for the time being, that the 50% limit applies only to non-EWS reservations, and States are permitted to reserve a total of 60% of the seats/posts including EWS reservations.

## 18. (c)

## Key Features of the PoSH Act:

• Applicability: The Act is applicable to all workplaces, including the organized and unorganized sectors, the public and private sectors, and government and non-government organizations. Hence, Statement 1 is correct.

- Constitution of Internal Complaints Committee (ICC): Employers are required to constitute an ICC at each office or branch with 10 or more employees.
  - It has to be headed by a woman, have at least two women employees, another employee, and a third party such as an NGO worker with five years of experience.
- Local Committee (LC): It mandates every district in the country to create a local committee (LC) to receive complaints from women working in firms with less than 10 employees. Hence, Statement 2 is not correct.
- Statement 3 is correct : Procedure for Filing Complaints: Woman can file a written complaint within three to six months of the sexual harassment incident.
  - There are two ways to resolve the issue by the committee- through conciliation between the complainant and the respondent (which cannot be a financial settlement), or committees could initiate an inquiry, taking appropriate action based on what it finds.

Statement 1 is not correct: It was launched in 2016 by the Ministry of Petroleum & Natural Gas to provide LPG connections to women from Below Poverty Line (BPL) households.

• LPG Connection is released in the name of an adult woman of the BPL Family.

## Statement 2 is correct: Objectives & significance

- Health Benefits: Decrease in health hazards associated with cooking based on fossil fuel.
  - WHO estimates: About 5 lakh deaths in India due to unclean cooking fuels.
- Women Empowerment: Women are saved from the danger of collecting firewood by hiking long distances.
- Socio-Economic Benefits: Productive activities, & connection on Women's name.
- Environment: Less pollution due to fuel burning.

## 20. (c)

# Atal Pension Yojana (APY):

- APY is a flagship social security scheme of the Government of India, launched on 9th May 2015.
- Managed by: The Pension Fund Regulatory and Development Authority (PFRDA).
- Aim: To provide old age income security to Indian citizens, with a particular focus on the poor, underprivileged, and workers in the unorganized sectors.
- Age: The minimum age of joining APY is 18 years and maximum is 40 years. The age of exit and start of pension is 60 years.
  - **Exclusions:** From 1st October, 2022, any citizen who is or has been an income tax payer, shall not be eligible to join APY.

# 21. (d)

## Jal Jeevan Mission

- Launched: The Mission was launched on August 15, 2019.
- Concerned Ministry: It comes under the Ministry of Jal Shakti.
  - Funding Pattern: The fund sharing pattern between the Centre and states is:
    - 90:10 for Himalayan and North-Eastern States
    - o 50:50 for other states

## 100% for Union Territories.

- Focus Areas: The programme also focuses on:
  - o recharge and reuse through grey water management
  - water conservation

- rain water harvesting
- Community based programme:
  - The Jal Jeevan Mission will be based on a community approach to water and will include extensive Information, Education and communication as a key component of the mission.
  - It aims to create a Jan Andolan for water, thereby making it everyone's priority.

## 22. (d)

**In News:** The U.S. and the European Union have now imposed countervailing duties (CVDs) on four Indian products, as a retaliation against the Remission of Duties and Taxes on Export Products (RoDTEP) scheme introduced for outbound shipments in January 2021.

Statements 1 and 2 are not correct : RoDTEP is based on the globally accepted principle that taxes and duties should not be exported, and taxes and levies borne on the exported products should be either exempted or remitted to exporters.

- The RoDTEP scheme rebates/refunds the embedded Central, State and local duties/taxes to the exporters that were so far not being rebated/refunded.
- Anti dumping and anti subsidies & countervailing measures in India are administered by the Directorate General of Anti dumping and Allied Duties (DGAD) functioning in the Dept. of Commerce in the Ministry of Commerce and Industry and the same is headed by the "Designated Authority.

## 23. (d)

Statement 1 is not correct and Statement 2 is not correct.

## Naya Savera Scheme

- Ministry: The Ministry of Minority Affairs launched the scheme in 2007.
- Objective: It is also known as Free Coaching and Allied scheme to assist students/ candidates by way of special coaching for qualifying examinations for admission in technical/professional courses and competitive examination for recruitment to Group 'A', 'B', & 'C' services and other equivalent posts under the Central and State Governments including public sector undertakings, banks and railways.
- Criteria: The candidates must belong to the six notified minority communities namely Sikh, Jain, Muslim, Christian, Buddhist and Parsi.

## 24. (a)

The Ministry of Consumer Affairs (MCA) has set up a committee to come up with a Right to Repair framework.

- The framework is significant as it will give consumers a chance to repair their products at an optimal cost instead of buying new products altogether.
- The Ministry of Consumer Affairs (MCA) has also set up a Right to Repair portal that allows citizens to get their gadgets and vehicles repaired without losing warranty. Hence statement 1 is correct.
  - The portal aggregates all the public information related to products, service, warranty, terms and conditions, etc.

# 'Repairability Index'

- France is the first major country in the world to set up the 'Repairability Index' on 5 categories of electronic devices. Hence statement 2 is not correct.
- The repairability index is a score out of 10 that each device in the aforementioned categories receives.

25. (b)

## Option b is correct:

- The Global Partnership on Artificial Intelligence (GPAI) Summit, chaired by India, announced the adoption of the New Delhi Declaration at the Bharat Mandapam in New Delhi.
- The New Delhi Declaration on AI agreed to collaboratively develop AI applications in healthcare and agriculture, as well as including the needs of the Global South in development of AI.
- It agreed upon using the GPAI platform to create a global framework on AI trust and safety, and make AI solutions and benefits available for all.
- India pitched to host a GPAI Global Governance Summit to finalise the proposed framework, in next six months.

## 26. (a)

**In News:** Recently, the Prime Minister of India addressed the Viksit Bharat Sankalp Yatra in Varanasi Statement 1 is correct : Viksit Bharat Sankalp Yatra is being undertaken with the active involvement of various Union ministries and state governments.

- It aims to create awareness among citizens about various welfare schemes and seek their participation in the spirit of "Jan Bhagidari" to ensure 100% saturation of schemes.
  - It is the largest-ever outreach initiative of Government of India and will cover 2.60 lakh Gram Panchayats and 4000+ urban local bodies across the nation by January 25, 2024.

Statement 2 is not correct : Viksit Bharat Sankalp Yatra is a government initiative being undertaken across the country, to raise awareness about and track the implementation of flagship central schemes, such as Ayushman Bharat, Ujjwala Yojana, PM Surkasha Bima, PM SVANidhi, etc.

## 27. (b)

Statement 1 is correct: The Ministry of Environment, Forests and Climate Change has launched the Indian Forest & Wood Certification Scheme (IFWCS).

• It is the national forest certification scheme and is designed to promote sustainable forest management and sustainable management of Trees outside Forests in the country.

Statement 2 is not correct: Scope: IFWCS is applicable across the country, both in forest areas and Trees outside Forests (TOF) plantations on government, private, agroforestry and other lands.

• The certification is applicable for both timber and non-timber forest produce (NTFP).

Statement 3 is correct: Advisory Body: It will be overseen by the Indian Forest and Wood Certification Council, which will act as a multistakeholder advisory body.

• The Council is represented by members from eminent institutions such as Indian Council of Forestry Research and Education, Forest Survey of India, Indian Institute of Forest Management including representatives from the Ministries.

## 28. (a)

Statement 1 is correct: Pradhan Mantri Bhartiya Janaushadhi Pariyojana was launched in 2008 by the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers under the name Jan Aushadi Campaign.

Statement 2 is not correct: Aim: To provide quality medicines at affordable prices to the masses.

## 29. (b)

# Statement 1 is not correct:

- The District Project Societies (DPS) are set up under the National Child Labour Project (NCLP), a Central Sector Scheme.
- Under this Scheme, the children in the age group of 9-14 years are withdrawn from work and put into NCLP Special Training Centres, where they are provided with bridge education, vocational

training, mid-day meal, stipend, health care etc. before being mainstreamed into the formal education system.

## Statement 2 is correct:

• The District Project Societies (DPS) are set up at the district level under the Chairmanship of the Collector/District Magistrate for overseeing the implementation of the project.

## 30. (d)

The Women and Child Development Minister inaugurated the National Programme on Anganwadi-cum-Crèches.

## Palna Scheme

- Earlier known as the National Creche Scheme, it was reorganized and renamed as Palna Scheme under the sub scheme 'Samarthya' of 'Mission Shakti'.
- Under the Palna Scheme, provision of Anganwadi cum Creches has been introduced by the Ministry of Women and Child Development.

## 31. (b)

## Statement 1 is not correct and 2 is correct.

## Context

• The Ministry of Textiles launched "Paat-Mitro" - a mobile application during 'Jute Symposium'.

## About

- Paat-Mitro application is developed by The Jute Corporation of India Limited (JCI).
- Jute Symposium: It was organized to create awareness and popularize Jute based technical textiles with special emphasis on Jute Geotextiles.

#### Features

- The application is launched to provide information about MSP and agronomy to jute farmers and is available in 6 languages.
- In the app there are Jute Gradation Parameters, Farmer-centric schemes like 'Jute-ICARE', weather forecasts, JCI's Purchase Centers' locations, Procurement Policies, and Chatbot are also made available.
- Farmers will also be able to track the status of their payments for the raw jute sold to JCI under MSP Operation.

## 32. (b)

## Statement 1 is not correct and statements 2 and 3 are correct.

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

- AB PM-JAY is the largest publicly funded health assurance scheme in the world which provides health cover of Rs. 5 lakhs per family per year for secondary and tertiary care hospitalization.
- It covers up to 3 days of pre-hospitalization and 15 days of post hospitalization expenses such as diagnostics and medicines.
- Benefits of the scheme are portable across the country i.e. a beneficiary can visit any empanelled public or private hospital in India to avail cashless treatment.
- There is no restriction on the family size, age or gender.

## Eligibility

• The inclusion of households is based on the deprivation and occupational criteria of the Socio-Economic Caste Census 2011 (SECC 2011) for rural and urban areas, respectively. • This number also includes families that were covered in the Rashtriya Swasthya Bima Yojana (RSBY) but were not present in the SECC 2011 database.

## 33. (c)

Both the statements are correct: Bharatmala Pariyojana is an umbrella program launched in 2015, that focuses on optimizing efficiency of freight and passenger movement across the country.

- The term "Bharatmala" translates to "Bharat" (India) and "mala" (garland), symbolizing the seamless connectivity of the entire nation.
- North-East Road Network Connectivity: Strengthening road connectivity in the northeastern region
  of India is one of the features of the program.
  - Integrating Bangladesh Bhutan Nepal and Myanmar Thailand corridors will make the NorthEast hub of East Asia.

## 34. (a)

**In News :** The Union Minister for Environment, Forest and Climate Change launched the National Transit Pass System (NTPS) pan-India.

Statement 1 and 3 are not correct : National Transit Pass System (NTPS) is an online Transit Pass generation system for timber, bamboo and other forest produce.

- Currently, the transit permits are issued for transport of timber and forest produce based on state specific transit rules.
- The Ministry of Environment, Forest and Climate Change has launched the National Transit Pass System (NTPS).

Statement 2 is correct: National Transit Pass System (NTPS) expedites issuance of transit pass systems. A Transit pass issued from this system will be valid across India.

- There will not be any requirement of a Transit Pass at state borders.
  - There is no need to visit forest office for issuance of Transit Pass

## 35. (a)

## About the Pradhan Mantri Kisan Samman Nidhi (PM-Kisan):

- Launched in: 2019 as a Central Sector Scheme.
- Objective: It aims to provide income support to all landholding farmer families in India to supplement their financial needs for procuring various inputs related to agriculture and allied activities as well as domestic needs.
- Income support: It is a direct income support (DIS), in which every farmer is paid a flat Rs 6,000 per year in three equal installments.
  - Every four months, the benefit will be credited to the account of the eligible PM Kisan beneficiary.
  - It is irrespective of which crops she grows in whatever quantities and sells to whomsoever at any price.
- Scope: There is no differentiation between urban and rural cultivable land. This is because both are included under the scheme, as long as the land in urban areas are actually being farmed.
  - Also, the scheme does not cover agricultural land that is exploited for nonagricultural purposes.



# **DEFENCE / INTERNAL SECURITY**

- 1. With reference to INS Imphal, consider the following statements:
  - 1. It is the first warship named after a city in the Northeastern region of India.
  - 2. It is a part of P15A (Kolkata Class) Destroyers.

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. MV Chem Pluto recently seen in the news ,it is related to
  - (a) New planet
  - (b) Air Missile
  - (c) Chemical tanker
  - (d) Species of frog
- 3. With reference to Agni-1 Missile, which of the following statements is/are correct?
  - 1. It is a short-range ballistic missile (SRBM) with a specified range of 700 km.
  - 2. The missile has a four-stage liquid propellant Propulsion system.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 4. Which of the following statements is NOT TRUE about the Assam Rifles?
  - (a) It is the oldest paramilitary force in India, established in 1835.
  - (b) It is primarily responsible for guarding borders along the Indo-Bangladesh border.
  - (c) The administrative control of the force is with the Ministry of Home Affairs, while operational control is with the Ministry of Defence (MoD).
  - (d) It plays a crucial role in counter-insurgency operations in the Northeast region.
- 5. The 8th edition of Indian Ocean Naval Symposium (IONS) Conclave of Chiefs (CoC) was conducted recently, it was conceived in 2008 by which of the following countries?
  - (a) France
  - (b) Japan
  - (c) Australia
  - (d) None
- 6. It is one of the seven central armed police forces (CAPFs), under the administrative control of the Ministry of Home Affairs. Established in 1969 it aims to provide integrated security cover to certain sensitive public sector undertakings. It also has its own Fire Wing which provides services to various

establishments. Its security umbrella includes India's most critical infrastructure facilities like nuclear installations, space establishments, airports, seaports, power plants etc.

Which of the following security forces has been described above?

- (a) Central Reserve Police Force (CRPF)
- (b) Border Security Force (BSF)
- (c) Indo-Tibetan Border Police (ITBP)
- (d) Central Industrial Security Force (CISF)

# **EXPLANATIONS**

# 1. (a)

Statement 1 is correct: Yard 12706 (Imphal), the third Project 15B stealth guided missile destroyer has been commissioned into the Indian Navy.

• INS Imphal holds the distinction of being the first warship named after a city in the Northeastern region.

Statement 2 is not correct: It is a part of Project 15B and designed for combat under Nuclear, Biological, and Chemical (NBC) warfare conditions, it exhibits high automation, stealth features, and survivability.

• The ship can attain speeds exceeding 30 knots (56 km/hour).

# Project 15 B

- The Project 15B class of ships are the next-generation stealth guided-missile destroyers of the Indian Navy, being built at the MDL, which are follow-on classes of the weapon intensive P15A (Kolkata Class) Destroyers.
- The four ships of the Project are christened after major cities from all four corners of the country, viz. Visakhapatnam, Mormugao, Imphal and Surat.

# 2. (c)

Chemical tanker MV Chem Pluto was hit by a drone strike on Saturday (December 23), roughly 200 nautical miles (370 km) off the coast of Gujarat.

- MV Chem Pluto is a Liberia-flagged, Japanese-owned, and Netherlands-operated chemical tanker.
- It is a chemical/ oil tanker with a crew of 21 Indians and a Vietnamese.

# 3. (a)

Statement 1 is correct and Statement 2 is not correct.

# Agni-1 Missile

- Originating from India's Integrated Guided Missile Development Program (1983), Agni-I is part of a series of missiles that includes Prithvi, Nag, Akash, and Trishul.
- Type and Range: The Agni-I is an Indian short-range ballistic missile (SRBM) with a specified range of 700 km.
- Payload and Nuclear Capability: The missile has a specified range of 700 km and an estimated payload capacity of 1,000 kg, enabling it to carry nuclear warheads.
- Propulsion: Single-stage, solid propellant

# IGMDP (Integrated Guided Missile Development Program)

- Idea by: Dr A.P.J. Abdul Kalam; approved by GOI in 1983.
- Aim: Attain self-sufficiency in the field of missile technology.
- Five missiles developed under this:

- o Agni Series
- o Prithvi (Ballistic Missiles)
- Nag (3rd gen Anti-tank missile)
- Akash (Medium Range Surface to Air)
- Trishul (Short range Surface to Air)

## About Assam Rifles (AR):

- The AR is one of the six central armed police forces (CAPFs).
- The AR is tasked with maintaining law and order in the Northeast along with the Indian Army and also guards the Indo-Myanmar border.
- Assam Rifles has 46 battalions and a sanctioned strength of more than 65,000 troops.
  - Of these, 20 battalions are involved in guarding the India-Myanmar border and 26 battalions are involved in counter-insurgency roles, including two in Jammu and Kashmir.
- The AR is unique with respect to being the only paramilitary force with a dual control structure.
  - While the administrative control of the force is with the Ministry of Home Affairs, its operational control is with the Indian Army, which is under the Ministry of Defence (MoD).
  - Salaries and infrastructure for the force is provided by the MHA, but the deployment, posting, transfers, and deputation of personnel is decided by the Army.

# 5. (d)

The 8th edition of Indian Ocean Naval Symposium (IONS) Conclave of Chiefs (CoC) was conducted by the Royal Thai Navy at Bangkok. The 'Indian Ocean Naval Symposium' (IONS) is a voluntary initiative .

 It was conceived by the Indian Navy in 2008 as a forum that seeks to increase maritime cooperation among navies of the littoral states of the Indian Ocean Region by providing an open and inclusive forum for discussion of regionally relevant maritime issues.

# 6. (d)

# About the Central Industrial Security Force (CISF):

- It is one of the seven central armed police forces (CAPFs) under the administrative control of the Ministry of Home Affairs (MHA).
  - The other five forces are the Central Reserve Police Force (CRPF), Border Security Force (BSF), Indo-Tibetan Border Police (ITBP), Assam Rifles and Sashastra Seema Bal (SSB).
- Established in: 1969
- Mandate: To provide integrated security cover to certain sensitive public sector undertakings.
  - The CISF at present provides security cover to 358 establishments through the length and breadth of the country.
  - The CISF also has its own Fire Wing which provides services to 112 establishments.
- Coverage: The CISF security umbrella includes India's most critical infrastructure facilities like nuclear installations, space establishments, airports, seaports, power plants etc.
  - In addition, the CISF also protects important government buildings, iconic heritage monuments (Taj Mahal) and the Delhi Metro.

# **SCIENCE & TECHNOLOGY**

- 1. Consider the following pairs of Missions by Indian Space Research Organisation (ISRO):
  - Mission
- Objective
- 1. NISAR To map the entire globe in 12 days.
- 2. SPADEX To investigate the polarisation of intense X-Ray sources.
- 3. XPoSat Studying celestial sources in UV spectral bands.

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
- 2. Which of the following statements is most likely true about sub-Neptunes?
  - (a) They are the planets smaller than Neptune orbiting closer to their stars.
  - (b) They are all rocky planets with solid surfaces.
  - (c) They are all located within the habitable zone of their stars.
  - (d) They are all discovered in recent years in our solar system.
- 3. It is a dark pattern practice due to which a user is disrupted and annoyed by repeated and persistent interactions, in the form of requests, information, options, or interruptions, to effectuate a transaction and make some commercial gains. It is in reference to which of the following?
  - (a) Basket sneaking
  - (b) Subscription trap
  - (c) Nagging
  - (d) Interface interference
- 4. Consider the following statements regarding the World Malaria Report 2023:
  - 1. It was released by the National Centre for Disease Control(NCDC).
  - 2. Pakistan saw the largest increase in Malaria.
  - 3. India saw a 80% decline in malaria cases in 2022 as compared to the previous year.
  - How many of the above statements are correct?
  - (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
- 5. With reference to the hydrogen-powered trains, consider the following statements:
  - 1. India plans to operate hydrogen-powered trains on select heritage and hilly routes that are environmentally sensitive.
  - 2. Japan and Germany are the only countries to operate hydrogen-powered trains commercially. 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 Neglected Tropical Diseases (NTDs), consider the following statements:
  - 1. They are caused by the Bacteria and Fungi only.
  - 2. Dengue and Kala-azar are the only two NTDs found 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
- 7. It is a cybercrime in which a target or targets are contacted by email, telephone or text message by someone posing as a legitimate institution to lure individuals into providing sensitive data such as personally identifiable information, banking and credit card details, and passwords. It is in reference to which of the following?
  - (a) Ransomware
  - (b) Phishing
  - (c) Trojan horse
  - (d) Denial-of-service attack
- 8. SSWith reference to the Piezoelectric Effect, which of the following statements is/are correct?
  - 1. It is the ability of certain materials to generate an electric charge in response to applied mechanical stress.
  - 2. Quartz is the only material on earth which shows this effect.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 9. Consider the following pairs:

# Genome sequencing initiatives Related Countries/Unions

- 1. deCODE initiative
  - Iceland
- 2.
   100K Genome' project
   UK

   2.
   1.
   Nillian Genome' initiation
   European la
- 3.1+ Million Genomes initiative.European Union
- How many of the above pairs are correctly matched?
- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 10. With reference to Pompe Disease, which of the following statements is/are correct?
  - 1. It is a zoonotic disease caused by bacteria.

2. There is no cure available for the disease.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 11. '95-95-95 Strategy' is an ambitious treatment that targets to help in ending which of the following diseases?
  - (a) Tuberculosis (Tb)
  - (b) Citrus leprosy (CL)
  - (c) Acquired immunodeficiency syndrome (AIDS)
  - (d) Cancer
- 12. Consider the following statements:
  - I. The World Health Organization (WHO) sets a permissible limit of 10 micrograms per liter ( $\mu$ g/L) for arsenic in drinking water.
  - II. Chronic exposure to elevated arsenic levels poses serious health risks like Cancer, Skin Lesions, Cardiovascular Issues, Neurological Effects.

Which one of the following is correct with respect to the above statements?

- (a) Both Statement I and Statement II are correct and Statement II is the correct explanation of statement I.
- (b) Both Statement I and Statement II are correct and Statement II is not the correct explanation of statement I.
- (c) Statement I is correct but Statement II is incorrect.
- (d) Statement II is correct but Statement I is incorrect.
- 13. Terms like 'Casgevy and Lyfgenia' sometimes appeared in the news, in the context of:
  - (a) Avian influenza
  - (b) Sickle cell disease
  - (c) Anthrax
  - (d) Tuberculosis
- 14. Terms like SUVAS and SUPACE, sometimes appeared in the news are related to:
  - (a) Space phenomena
  - (b) Traditional Knowledge System
  - (c) System to secure railways
  - (d) Artificial Intelligence
- 15. Which of the following statements about CDSCO is not correct?
  - (a) CDSCO was established under the Drugs and Cosmetics Act, 1940.
  - (b) CDSCO grants marketing approval for new drugs in India.
  - (c) CDSCO is responsible for setting standards for the quality of drugs manufactured in India.
  - (d) CDSCO controls the prices of drugs in India.
- 16. Meftal Drug recently seen in the news, it is related to which of the following?

| (a) | Tuberculosis | (TB) |
|-----|--------------|------|
|-----|--------------|------|

- (b) Dementia
- (c) Menstrual cramps
- (d) Coronavirus disease
- 17. Term 'Vaso-Occlusive Events (VOEs) or Vaso-Occlusive Crises (VOCs)' sometimes mentioned in the news, is related to:
  - (a) Health Issue
  - (b) Environmental Pollution
  - (c) Nuclear Energy
  - (d) Space phenomena
- 18. ELIZA effect sometimes seen in the news, is related to which of the following?
  - (a) Seismic waves
  - (b) Computer program
  - (c) Allergic reactions
  - (d) Practice of removing carbon
- 19. Which one of the following is/are the potential application Fractal Dimensions?
  - 1. Analyzing the branching patterns of rivers and trees.
  - 2. Creating realistic landscapes in video games.
  - 3. Predicting future stock market trends.
  - 4. Design drug delivery systems that target specific areas in the body.

Select the correct answer using the code given below:

- (a) Only one
- (b) Only two
- (c) All three
- (d) All four
- 20. With reference to the given disease, consider the following pairs :

## Disease

#### Cause

- 1. Itai-Itai disease : Arsenic Contamination
- 2. Blackfoot disease : Nitrates Contamination
- 3. Minamata Disease : Cadmium Contamination

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
- 21. Anthrax is caused by Which of the following Microorganisms ?
  - (a) Bacteria
  - (b) Virus
  - (c) Fungi
  - (d) Algae

- 22. With reference to the Plankton, Aerosol, Cloud, Ocean Ecosystem (PACE) Mission, which of the following statements is/are correct?
  - 1. It has been launched by Japan Aerospace Exploration Agency (JAXA) in 2022.
  - 2. The mission has advanced Polarimeters for complementary spectral and angular sampling, polarimetric accuracy, and spatial coverage.

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. With reference to the Haemophilia, consider the following statements:
  - 1. People with hemophilia experience prolonged bleeding, even from minor injuries.
  - 2. The two main types of hemophilia are hemophilia A and hemophilia B.

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. Consider the following statements:
  - 1. The gene mutation causing hemophilia is located on the X chromosome.
  - 2. The gene mutation is inherited from the X chromosome of male carrier.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 25. With reference to the Anthrax, which of the following statements is/are correct?
  - 1. It is a zoonotic disease caused by viruses.
  - 2. It is 100% fatal but 100% vaccine-preventable.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 26. Which among the following are the genetic disorders?
  - 1. Sickle Cell Anemia
  - 2. Klinefelter Syndrome
  - 3. Crohn's Disease
  - 4. Acquired immunodeficiency syndrome (AIDS)

Select the correct answer using the code given below:

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

27. "SARAS radio telescope" recently seen in the news, aims to study which of the following?

- (a) Impact of climate change on other planets in the solar system.
- (b) The cosmological signals emerging from the early stages of the universe.
- (c) The coronal ejections from the Sun.
- (d) Reaction between Earth's gravity and Moon's movement.
- 28. The Cosmic Dawn and the Epoch of Reionization recently seen in the news, are related to which of the following?
  - (a) The two famous books on astronomy which received the Nobel Prize of Literature.
  - (b) These are two important phases of evolution of modern human beings.
  - (c) These are the two vital phases which the universe underwent during its early stages of evolution.
  - (d) These are two new centres of India on the International space station(ISS).
- 29. With reference to the Lumpy skin disease, consider the following statements:
  - 1. It is a bacterial and fungal disease that primarily affects cattle and buffalo.
  - 2. It can be transmitted to humans by close contact with the animal and consuming the infected meat.

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
- 30. "XPoSat" recently seen in the news, is related to which of the following?
  - (a) It is the largest expo of traditional goods and artifacts in the world, recently organised at New Delhi.
  - (b) It is India's first polarimetry mission meant to study the "polarisation" of astronomical X-rays.
  - (c) It is an assessment tool developed by the ICAR to accurately gauge the yield of the crops.
  - (d) It is a new method in genetic engineering which helps to fasttrack vaccine development.
- 31. Consider the following statements
  - 1. R21/Matrix-M is the first malaria vaccine recommended by World Health Organization (WHO)
  - 2. Malaria spreads to people through the bites of the Aedes aegypti mosquito.
  - 3. The WHO African Region carries a disproportionately high share of the global malaria burden. How many of the statements given above are correct?
  - (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
- 32. "6×6×6 strategy" recently seen in the news, is related to which of the following?

- (a) Achieving six Sustainable Development Goals by 2026
- (b) Preventive and curative mechanisms for Anaemia
- (c) Free Trade mechanism for Six South Asian countries
- (d) Climate adaptation goals set by six island countries
- 33. With reference to the Tuberculosis (TB), consider the following statements:
  - 1. It is caused by the bacteria Mycobacterium tuberculosis.
  - 2. It spreads through the air and affects only the lungs in the body.
  - 3. The Government of India has developed a National Strategic Plan for eliminating TB by 2025.

How many of the statements given above are correct?

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

34. With reference to the Huntington's disease, consider the following statements:

- 1. It is a genetic disorder that affects the brain.
- 2. The mutation responsible for Huntington's disease occurs in the huntingtin (HTT) gene.
- 3. Gene therapy can cure the disease.
- How many of the statements given above are correct?
- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 35. Smart Lander for Investigating Moon (SLIM), has been launched by which of the following space organizations?
  - (a) Japan Aerospace Exploration Agency (JAXA)
  - (b) Indian Space Research Organisation (ISRO)
  - (c) National Aeronautics and Space Administration (NASA)
  - (d) European Space Agency (ESA)
- 36. 'Bletchley Declaration", recently seen in the news, is related to which of the following?
  - (a) Setting agenda to fastrack Sustainable Development Goals
  - (b) Regulating Artificial Intelligence
  - (c) Developing a framework for reforming United Nations Security Council
  - (d) A revival package for the European Union
- 37. Pantoea Tagorei was recently seen in the news, it is a
  - (a) Virus
  - (b) Newly discovered Bacteria
  - (c) Fungus showing Fluorescence Phenomenon
  - (d) Newly discovered plant species

# **EXPLANATIONS**

#### 1. (a)

Pair 1 is correctly matched: NASA-ISRO SAR (NISAR): It is is a Low Earth Orbit (LEO) observatory being jointly developed by NASA and ISRO.

• NISAR will map the entire globe in 12 days and provide spatially and temporally consistent data for understanding changes in Earth's ecosystems.

Pair 2 and 3 are not correctly matched: SPADEX: SPADEX or Space Docking Experiment is a twin spacecraft mission being developed by ISRO to mature technologies related to orbital rendezvous, docking, formation flying, with scope of applications in human spaceflight, in-space satellite servicing and other proximity operations.

- XPoSat (X-ray Polarimeter Satellite) is India's first dedicated polarimetry mission.
- It is aiming to investigate the polarisation of intense X-Ray sources.

## 2. (a)

"Sub-Neptunes" are the most common type of planets observed in our Milky Way galaxy. They are a type of exoplanet that is intermediate in size between Earth and Neptune.

- They are two to three times the diameter of Earth but smaller than Neptune, and orbiting closer to their stars than our solar system's innermost planet Mercury does to the sun.
- While some sub-Neptunes may be gas giants with thick atmospheres composed mostly of hydrogen and helium, others may have rocky surfaces.
  - Not all sub-Neptunes lie in the nominal habitable zone.
  - Additionally, not all discovered exoplanets are sub-Neptunes.
- They are absent from our solar system and their fundamental nature has remained a puzzle.
- Sub-Neptunes are relatively new discoveries, and most of them have been found in recent years.

## 3. (c)

Nagging: It means a dark pattern practice due to which a user is disrupted and annoyed by repeated and persistent interactions, in the form of requests, information, options, or interruptions, to effectuate a transaction and make some commercial gains.

- Basket sneaking: It means inclusion of additional items such as products, services, payments to charity or donation at the time of checkout from a platform, without the consent of the user.
- Subscription trap: It is the process of making cancellation of a paid subscription impossible or a complex and lengthy process; or hiding the cancellation option for a subscription.
- Interface interference: It means a design element that manipulates the user interface in ways that
  - Highlights certain specific information; and
  - Obscures other relevant information relative to the other information; to misdirect a user from taking an action as desired.

#### 4. (a)

Statements 1 and 3 are not correct : World Malaria Report 2023 recently published by the World Health Organization (WHO).

- It delves into the nexus between climate change and malaria.
- In 2022, there were estimated 249 million cases globally, exceeding the pre-pandemic level of 233 million in 2019 by 16 million cases.
  - Globally there were an additional five million malaria cases in 2022 over the previous year and five countries bore the brunt of these increases.

• India saw a 30% decline in malaria cases and 34% decline in deaths in 2022 as compared to the previous year

Statement 2 is correct : Pakistan saw the largest increase, with about 2.6 million cases in 2022 compared to 500 000 in 2021.

■ Significant increases were also observed in Ethiopia, Nigeria, Papua New Guinea and Uganda.

# 5. (a)

Statement 1 is correct: Finance Minister Nirmala Sitharaman in her Budget speech 2023, announced the 'Hydrogen for Heritage' scheme, a plan to operate hydrogen-powered trains on select heritage and hilly routes that are environmentally sensitive.

- Technology: Indian Railways is developing a prototype of a train that will be powered by hydrogen fuel cells—making for a more environment-friendly locomotive than traditional diesel-powered ones.
  - India's plan to develop the technology involves retrofitment of hydrogen fuel cells on diesel electric multiple unit (DEMU) rakes. This prototype is expected to run on the Jind-Sonipat section in Haryana initially.
- Countries Having the Technology: Currently, only Germany commercially operates hydrogenpowered trains, while the US, the UK, France, and Japan are in the testing phase. Hence, Statement 2 is not correct.

# 6. (d)

Both the statements are not correct: NTDs are a diverse group of 20 conditions that are mainly prevalent in tropical areas, where they mostly affect impoverished communities and disproportionately affect women and children.

- They are caused by a variety of pathogens including viruses, bacteria, parasites, fungi and toxins.
- India has the world's largest absolute burden of at least 10 major NTDs -- hookworm, dengue, lymphatic filariasis, leprosy, kala-azar and rabies, ascariasis, trichuriasis, trachoma and cysticercosis.

# 7. (b)

# Ransomware

• Ransomware is a type of malware that prevents or limits users from accessing their system, either by locking the system's screen or by locking the users' files until a ransom is paid.

# Phishing

Phishing is a cybercrime in which a target or targets are contacted by email, telephone or text message by someone posing as a legitimate institution to lure individuals into providing sensitive data such as personally identifiable information, banking and credit card details, and passwords.

# Trojan horse

• A Trojan Horse (Trojan) is a type of malware that disguises itself as legitimate code or software. Once inside the network, attackers are able to carry out any action that a legitimate user could perform, such as exporting files, modifying data, deleting files or otherwise altering the contents of the device.

# Denial-of-service attack

• A Denial-of-Service (DoS) attack is an attack meant to shut down a machine or network, making it inaccessible to its intended users.

#### 8. (a)

#### Statement 1 is correct and 2 is not correct.

#### About Piezoelectricity

- Piezoelectric Effect is the ability of certain materials to generate an electric charge in response to applied mechanical stress.
- History: Piezoelectricity was discovered in 1880 by Pierre and Paul-Jacques Curie, who found that when they compressed certain types of crystals including quartz, tourmaline, and Rochelle salt, along certain axes, a voltage was produced on the surface of the crystal which shows that these materials show this effect.

#### Applications

- Both direct and inverse piezoelectric materials are used in pressure sensors, accelerometers, and acoustic devices where their ability to convert mechanical signals into electrical signals is crucial.
- The material is also used in devices such as microphones, phonograph pickups, and wave filters in telephone-communications systems.

#### 9. (c)

**In News:** The UK has announced the completion of half a million whole-genome sequences, almost 0.7% of its population.Population genomics is the large-scale application of genomic technologies to study populations of individuals.

• For example, population genomics research can be used to study human ancestry, migrations and health

#### All the Pairs the correctly matched

- The deCODE initiative: An early effort to use large-scale population genetic studies was initiated in Iceland by deCODE genomics in 1996, with most of the Icelandic population enrolling for genetic studies in around a decade's time.
  - The deCODE effort considerably improved understanding of the genetics of diseases and the utility of such data in risk assessment.
  - It also laid the groundwork to integrate medical records and people's genealogies, resulting in new drugs and therapeutics.
- 100K Genome' project: the UK's '100K Genome' project aimed to bring genomics into routine healthcare.
- The European Union recently launched the '1+ Million Genomes' initiative.

#### 10. (b)

#### Statement 1 is not correct and Statement 2 is correct.

#### Pompe disease

- Pompe disease is a rare genetic disorder caused by mutations in a gene that makes an enzyme called Acid alpha-glucosidase (GAA).
- GAA is used by the body to break down glycogen, a stored form of sugar used for energy. The glycogen is converted into glucose in Lysosomes.
- In Pompe disease, mutations in the GAA gene reduce or completely eliminate this essential enzyme, resulting in the accumulation of glycogen in cells, particularly in muscles.
- No Cure but there are treatments to manage symptoms. Enzyme replacement therapy can help improve muscle tone and reduce glycogen storage in individuals with Pompe disease.

11. (c)

Option C is correct: 90:90:90 strategy as adopted by UNAIDS (90% (diagnosed, treatment (by antiretroviral treatment (ART)) & suppression)) by 2020. Extended by 10 years with the goal post of 95-95-95.

## 12. (a)

Statement I is correct: The World Health Organization (WHO) sets a permissible limit of 10 micrograms per liter ( $\mu$ g/L) for arsenic in drinking water.

Statement II is correct: Chronic exposure to elevated arsenic levels poses serious health risks like:

- Cancer: Long-term exposure linked to skin, lung, bladder, and other cancers.
- Skin Lesions: Arsenicosis leads to skin discoloration, lesions, and hard patches.
- Cardiovascular Issues: Associated with heart diseases, vascular problems.
- Neurological Effects: Impact on the nervous system, cognitive function.
- Developmental Issues: Children are more vulnerable, and exposure can affect their cognitive development and immune system.

## 13. (b)

The US Food and Drug Administration (FDA) approved two gene therapies for sickle cell disease, making one of them the first treatment based on the Nobel Prize-winning CRISPR gene editing technology.

- The US FDA approved the Casgevy (developed by Vertex Pharmaceuticals and CRISPR Therapeutics), and Lyfgenia (developed by Bluebird bio) were approved for people aged 12 years and older.
  - Casgevy and Lyfgenia are pitched as one-time treatments, and these will be available in early 2024.
- Casgevy is based on CRISPR that uses molecular 'scissors' to trim faulty parts of genes that can then be disabled or replaced with new strands of normal DNA.
- On the other hand, Bluebird's gene therapy (Lyfgenia) is designed to work by inserting modified genes (cell-based gene therapy) into the body through disabled viruses.
  - Lyfgenia uses a lentiviral vector (gene delivery vehicle) for genetic modification.
- Both the Casgevy and Lyfgenia applications received Priority Review, Orphan Drug, Fast Track and Regenerative Medicine Advanced Therapy designations.

## 14. (d)

# Supreme Court Vidhik Anuvaad Software (SUVAS):

- It is a machine assisted translation tool trained by AI, that has been developed with technical support from the Ministry of Electronics and Information Technology.
- It is especially designed for Judicial Domain and at present, has the capacity and capability of translating English Judicial documents, Orders or Judgments into eleven vernacular languages scripts and vice versa.
- It is the first step towards the introduction of Artificial Intelligence in the Judicial Domain.

# Supreme Court Portal for Assistance in Court's Efficiency (SUPACE):

- It is a hybrid system and a perfect combination of human intelligence and machine learning that works wonders in combination with human intelligence.
- The AI-controlled tool is designed to process only information and make it available to judges for decision. It does not participate in the decision making process.
- Judges dealing with criminal matters would use it on an experimental basis.

15. (d)

Under the Drugs and Cosmetics Act, 1940, CDSCO is responsible for approval of Drugs, Conduct of Clinical Trials, laying down the standards for Drugs, control over the quality of imported Drugs in the country.

- While CDSCO plays a role in regulating the quality and availability of drugs, it does not directly control the prices of drugs in India.
- The National Pharmaceutical Pricing Authority (NPPA) is responsible for setting and revising the prices of essential drugs in India.
  - It was set up as an attached office of the Department of Pharmaceuticals, Ministry of Chemicals and Fertilizers on 29th August 1997.

## 16. (c)

**In News:** Indian Pharmacopoeia Commission (IPC) has issued a drug safety alert for commonly used painkiller mefenamic acid, popularly sold under the brand name Meftal.

- The primary constituent of Meftal is Mefenamic acid which is a nonsteroidal anti-inflammatory drug used to treat mild to moderate pain.
- Meftal is a commonly used drug for menstrual cramps and rheumatoid arthritis and other conditions as determined by a doctor, and is available only with a doctor's prescription.

## 17. (a)

## Sickle Cell Disease

- It is a group of inherited blood disorders which is most common in African Americans.
- The primary problem is a mutation in haemoglobin, a protein found in red blood cells that delivers oxygen to the body's tissues.
- This mutation causes red blood cells to develop a crescent or 'sickle' shape that restrict the flow in blood vessels and limit oxygen delivery to the body's tissues, leading to severe pain and organ damage called Vaso-Occlusive Events (VOEs) or Vaso-Occlusive Crises (VOCs).
- Anaemia Sickle cells easily disintegrate and die.
  - Red blood cells last approximately 120 days before needing to be replaced. However, sickle cells die in 10 to 20 days, leaving a red blood cell shortage (referred as Anaemia).

# 18. (b)

Eliza was among the first computer programs to simulate conversation with a person like today's chatbots.

- ELIZA effect refers to the phenomenon in which people think computer programs or similar systems have become capable of human emotions or functions because of the way they respond to user input.
- It is named after a 1960s computer program which also responded to users, albeit with very basic sentences that echoed their original words.
  - This program was credited to MIT professor Joseph Weizenbaum.

# 19. (d)

# The applications of fractal dimensions

- Natural Sciences:
  - Geology: Classifying rock formations, analyzing coastlines, and studying the branching patterns of rivers and trees.
- Ex. The coastline of Britain has a fractal dimension of around 1.25, indicating its irregularity compared to a straight line (dimension 1).

- Biology: Differentiating healthy cells from cancerous ones, characterizing the complexity of organs and tissues, and understanding the structure of blood vessels and neurons.
- Engineering and Technology:
  - Space: Some have also used fractality to study patterns in galaxies and planets.
  - Image compression: Fractals can be used to compress images efficiently by capturing their self-similar structure.
  - Drug delivery: Fractals can be used to design drug delivery systems that target specific areas in the body.
- Finance and Economics:
  - Market analysis: Fractals can be used to analyze the scaling properties of financial data, such as prediction of stock prices and exchange rates.
  - Portfolio optimization: Fractal-based approaches can be used to optimize investment portfolios.
- Computer Graphics and Art:
  - Realistic terrain generation: Fractals are used to create realistic-looking landscapes and natural features in video games and movies.
  - Special effects: Fractals can be used to create visually stunning effects like fire, smoke, and explosions.

#### 20. (d)

All the Pairs are incorrectly matched.

#### Itai-Itai disease

• Itai-itai disease is a health hazard induced by cadmium (Cd) poisoning. It can cause softening of the bones and kidney failure.

#### Blackfoot disease

• In Taiwan, arsenic exposure has been linked to "Blackfoot disease". It is a severe disease of blood vessels leading to gangrene.

## Minamata Disease

- Minamata disease is a neurological disease caused by severe mercury poisoning.
- Signs and symptoms include ataxia, numbness in the hands and feet, general muscle weakness, loss of peripheral vision, and damage to hearing and speech.

## 21. (a)

Anthrax is a serious infectious disease caused by gram-positive, rod-shaped bacteria known as Bacillus anthracis.

- It occurs naturally in soil and commonly affects domestic and wild animals around the world.
- Transmission: People get sick with anthrax when they come in contact with infected animals or contaminated animal products.
  - Animal-to-animal and human-to-human transmission of anthrax does not typically occur, although rare records of person-to-person transmission have been reported with cutaneous anthrax.
- Symptoms: Fever, nausea, vomiting, and sweats which progress to dyspnea and ultimately respiratory failure and hemodynamic collapse.
- Diagnosis: Anthrax can be diagnosed by identifying Bacillus anthracis in blood, skin lesions, or respiratory secretions through laboratory culture, PCR, or ELISA tests.

22. (b)

Statement 1 is not correct and Statement 2 is correct.

#### PACE Mission

• The National Aeronautics and Space Administration (NASA) is going to launch the PACE mission in 2024 to boost our understanding of Earth's atmosphere.

#### **Elements of Mission**

- Ocean Color Instrument (OCI): It will be capable of measuring the color of the ocean from ultraviolet to shortwave infrared.
- Advanced Polarimeters: PACE will also include two polarimeters. They are the Spectro-polarimeter for Planetary Exploration (SPEXone) and the Hyper Angular Research Polarimeter (HARP2).
  - Together they will provide "complementary spectral and angular sampling, polarimetric accuracy, and spatial coverage".
  - They are used to measure how the oscillation of sunlight within a geometric plane known as its polarization is changed by passing through clouds, aerosols, and the ocean.

## 23. (c)

Both the statements are correct: It is a rare genetic disorder that impairs the body's ability to control blood clotting or coagulation.

- People with hemophilia experience prolonged bleeding, even from minor injuries.
- The two main types of hemophilia are hemophilia A and hemophilia B, and they differ based on the deficient clotting factor.
  - Hemophilia A: Hemophilia A is the more common form and is caused by a deficiency of clotting factor VIII.
  - Hemophilia B: Hemophilia B is less common and is caused by a deficiency of clotting factor IX.

## 24. (a)

Statement 1 is correct: Inheritance: Hemophilia is usually inherited in an X-linked recessive pattern. This means that the gene mutation causing hemophilia is located on the X chromosome.

• Statement 2 is not correct: Since males have one X and one Y chromosome, a mutation on the X chromosome they inherit from their mother will result in hemophilia. Females, with two X chromosomes, are typically carriers.

#### 25. (d)

Both the Statements are not correct.

## Anthrax

- It is a serious infectious disease caused by gram-positive, rod-shaped bacteria known as Bacillus anthracis.
- It occurs naturally in soil and commonly affects domestic and wild animals around the world.
- Transmission: People get sick with anthrax when they come in contact with infected animals or contaminated animal products.
  - Animal-to-animal and human-to-human transmission of anthrax does not typically occur, although rare records of person-to-person transmission have been reported with cutaneous anthrax.
- Symptoms: Fever, nausea, vomiting, and sweats which progress to dyspnea and ultimately respiratory failure and hemodynamic collapse.
- Diagnosis: Anthrax can be diagnosed by identifying Bacillus anthracis in blood, skin lesions, or respiratory secretions through laboratory culture, PCR, or ELISA tests.

• Vaccines are also available for both livestock and humans. But it is not 100% vaccine-preventable.

#### 26. (a)

Sickle Cell Anemia: It is a genetic disorder characterized by the presence of abnormal hemoglobin, known as hemoglobin S (HbS), in red blood cells.

- Klinefelter Syndrome: It is a genetic condition in which a male is born with an extra copy of the X chromosome.
- Crohn's disease: It is a chronic inflammatory bowel disease (IBD) that can affect any part of the gastrointestinal (GI) tract, from the mouth to the anus.
  - While genetics is believed to play a role in the development of Crohn's disease, it is not solely a genetic disorder.
  - Crohn's disease is considered a complex, multifactorial condition influenced by a combination of genetic, environmental, and immunologic factors.
- Acquired immunodeficiency syndrome (AIDS): HIV (human immunodeficiency virus) is a virus that attacks the body's immune system. If HIV is not treated, it can lead to AIDS (acquired immunodeficiency syndrome).
  - There is currently no effective cure. Once people get HIV, they have it for life.

## 27. (b)

SARAS telescope is an indigenously designed and built at Raman Research Institute and was deployed over Dandiganahalli Lake and Sharavathi backwaters, in Northern Karnataka, in 2020.

- SARAS aims to study the faint cosmological signal from hydrogen, commonly referred to as the '21cm signal', emerging from the Cosmic Dawn and the Epoch of Reionization.
  - Cosmic Dawn denotes the period when the first stars and galaxies were born in the universe.
  - The "Epoch of Reionization" is a period in the history of the universe that likely arose as a result of the arrival of the first stars and galaxies.

## 28. (c)

The Cosmic Dawn and the Epoch of Reionization:

- These are the two vital phases which the universe underwent during its early stages of evolution several billions of years ago.
  - Cosmic Dawn denotes the period when the first stars and galaxies were born in the universe.
  - The "Epoch of Reionization" is a period in the history of the universe that likely arose as a result of the arrival of the first stars and galaxies.
- The SARAS radio telescope by Raman Research Institute aims to study the faint cosmological signal from hydrogen, commonly referred to as the '21-cm signal', emerging from the Cosmic Dawn and the Epoch of Reionization.

# 29. (d)

Statement 1 is not correct:

• Lumpy skin disease (LSD) is a serious viral disease that primarily affects cattle and buffalo. The disease can result in animal welfare issues and significant production losses.

## Statement 2 is not correct:

- LSD is a disease of animals, not humans, it is not transmitted to humans by eating infected meat.
- LSD is carried by live animals and reproductive material. It can also be spread by contaminated equipment and biting insects or parasites, such as flies, mosquitos and ticks.

## 30. (b)

# About the XPoSat:

- It is India's first, and only the world's second polarimetry mission that is meant to study various dynamics of bright astronomical X-ray sources in extreme conditions.
  - The other such major mission is NASA's Imaging X-ray Polarimetry Explorer (IXPE) that was launched in 2021.
- It will become the country's third space-based observatory after the recently launched solar mission Aditya-L1 and AstroSat launched in 2015.
- Mandate: To study the "polarisation" of astronomical X-rays, which can provide insights into the processes that resulted in its emissions.
  - The observatory can help in understanding the emission mechanism from sources such as black holes and neutron stars (collapsed core of a massive star).

#### 31. (a)

The World Health Organization (WHO) added the R21/Matrix-M malaria vaccine to its list of prequalified vaccines.

Statements 1 and 2 are not correct :R21/Matrix-M vaccine is the second malaria vaccine recommended by WHO, following the RTS,S/AS01 vaccine, which received a WHO recommendation in 2021.

- Both vaccines are shown to be safe and effective in preventing malaria in children
- R21/Matrix-M developed by Oxford University and manufactured by Serum Institute of India.
- Malaria mostly spreads to people through the bites of some infected female Anopheles mosquitoes. Blood transfusion and contaminated needles may also transmit malaria.

Statement 3 is correct : Globally in 2022, there were an estimated 249 million malaria cases and 608 000 malaria deaths in 85 countries.

- The WHO African Region carries a disproportionately high share of the global malaria burden.
- In 2022, the Region was home to 94% of malaria cases (233 million) and 95% (580 000) of malaria deaths.

## 32. (b)

**In News:** The ICMR has invited Expression of Interest (EoI) from the eligible organisations manufacturing non-invasive haemoglobinometer useful in effective screening of anaemia.

- In 2018, the Government of India launched the Anaemia Mukt Bharat (AMB) strategy.
- Its target is to reduce anaemia in the vulnerable age groups such as women, children and adolescents in a life cycle approach.
- It aims to provide preventive and curative mechanisms through a 6X6X6 strategy including,
  - six target beneficiaries,
  - six interventions and
  - six institutional mechanisms for all stakeholders to implement the strategy.

## 33. (b)

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

Statement 2 is not correct: It spreads through the air when infected people cough, sneeze or spit.

• The symptoms people get depend on where in the body TB becomes active. While TB usually affects the lungs, it also affects the kidneys, brain, spine and skin.

Statement 3 is correct: National Tuberculosis Elimination Program (NTEP): The Government of India has developed a National Strategic Plan (2017-25) for ending TB in the country by 2025.

#### 34. (b)

Statement 1 is correct: Huntington's disease (HD) is a genetic disorder that affects the brain, leading to progressive motor dysfunction, cognitive decline, and psychiatric symptoms.

Statement 2 is correct: The mutation responsible for Huntington's disease occurs in the huntingtin (HTT) gene, leading to the production of a faulty form of the huntingtin protein.

Statement 3 is not correct: There is currently no cure for HD, but there are treatments available to manage symptoms and improve the quality of life for individuals with the disease.

#### 35. (a)

Japan Aerospace Exploration Agency (JAXA)

#### Context

• The Japan Aerospace Exploration Agency (JAXA) announced that its "Smart Lander for Investigating Moon" (SLIM) successfully went into lunar orbit.

#### What is SLIM?

- SLIM is an experimental mission designed to demonstrate precise and accurate lunar landings.
- It was developed and launched by the Japan Aerospace Exploration Agency (JAXA) in September 2023.
- SLIM was launched together with XRISM, a next-generation X-ray space telescope, onboard an H-2A rocket.

## 36. (b)

#### The Bletchley Declaration:

- In November 2023, the 'Bletchley Declaration' by AI Safety Summit called for,
  - to work together in an inclusive manner to ensure human centric, trustworthy and responsible AI,
  - AI that is safe, and supports the good of all through existing international fora and other relevant initiatives, and
  - to promote cooperation to address the broad range of risks posed by AI.
- It sets out that no single part of society can address the impacts of frontier AI alone and that delivering on the potential of AI requires the sustained attention of governments, businesses, academia, and civil society.

#### 37. (b)

#### In News

• A group of researchers from Visva-Bharati University have discovered a bacteria capable of boosting plant growth and named it 'Pantoea Tagorei' after Nobel laureate Rabindranath Tagore.

#### About

- Pantoea Tagorei bacteria, classified within the Pantoea genus, are a member of the Enterobacteriaceae family. These bacteria can be found in diverse settings such as water, soil, humans, animals, and plants.
- The bacteria is named MR1 (Mine Rhizosphere), is a Gram-negative, short-rod, non-motile, facultatively anaerobic, potassium-solubilising species isolated from the rhizospheric soil of an open-cast coal mine in Jharia, Jharkhand.
- Pantoea Tagorei' efficiently extracts potassium from soil which enhances plant growth.

## Benefits

- The bacteria has immense potential to revolutionise agricultural practices.
  - It is a plant growth promoting bacteria which will prove to be a game-changer in agriculture. It has shown immense capability to boost the cultivation of paddy, pea and chilli.



# **ENVIRONMENT & ECOLOGY**

- 1. Consider the following statements about the Climate Club:
  - 1. It was launched at COP26 by India and the UK.
  - 2. The members are committed to developing strategies and standards for decarbonization.
  - 3. It is a formal international organization with support from all UN members.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 2 only
- (c) 3 only
- (d) All of the above
- 2. The 'Decadal State of the Climate (2011-2020)' was released by which of the following international organisations?
  - (a) United Nations Framework Convention on Climate Change (UNFCCC)
  - (b) United Nations Environment Programme (UNEP)
  - (c) International Union for Conservation of Nature (IUCN)
  - (d) World Meteorological Organization (WMO)
- 3. With reference to the Basel Convention, which of the following statements is/are correct?
  - 1. It regulates the transboundary movements of hazardous wastes and their safe disposal.
  - 2. It does not address the movement of radioactive waste.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 4. With reference to the Environment Impact Assessment (EIA), consider the following statements:
  - 1. It is a process defined by the United Nations Environment Programme (UNEP) as a tool to identify the environmental, social, and economic impacts of a project before it is implemented.
  - 2. In India, first EIA notification was promulgated in 2006.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 5. The "Miyawaki method" is well known for the:
  - (a) Promotion of commercial farming in arid and semi-arid areas.
  - (b) Development of gardens using genetically modified flora.
  - (c) Creation of mini forests in urban areas.

- (d) Harvesting wind energy on coastal areas and on sea surfaces.
- 6. Consider the following statements with reference to Oil and Gas Decarbonization Charter (OGDC):
  - 1. The charter calls for the oil and gas industry to attain net-zero emissions in their operations by 2030.
  - 2. The charter is framed under the aegis of Organisation for Economic Co-operation and Development (OECD).

How many of the above statements are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) None of the above
- 7. With reference to the 'Early Warnings for All Initiative', consider the following statements:
  - 1. It was formally launched at the COP28 in Dubai.
  - 2. It aligns with the priorities of the Paris Agreement and supports key provisions of the Sendai Framework for Disaster Risk Reduction.

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 Asola Bhatti Wildlife Sanctuary, which of the following statements is/are correct?
  - 1. It is located on the Southern Delhi Ridge of Aravalli hill range.
  - 2. The sanctuary is the home to Endangered species like red-headed vulture and egyptian vulture. Select the correct answer using the code given below:
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
- 9. With reference to Intergovernmental Panel on Climate Change (IPCC), consider the following statements:
  - 1. It was established by the World Meteorological Organisation (WMO) and United Nations Environment Programme (UNEP) in 1988.
  - 2. It provides governments at all levels with scientific information that they can use to develop climate policies.
  - 3. It does not itself engage in scientific research.

Which of the statements given above are correct?

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

- 10. With reference to the Budgett's Frog, which of the following statements is/are correct?
  - 1. The IUCN status of the species is Critically Endangered.
  - 2. The species is known for its unique vocalizations, which can include grunts and growls. Select the correct answer using the code given below:
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
- 11. Consider the following statements:

Statement-I: The GRCA was launched in November 2023 at COP28 in Dubai.

Statement-II: The GRCA is an initiative inspired by the success of the River Cities Alliance of India (RCA). Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct
- 12. Kunming Declaration was seen in the news recently, it is related to:
  - (a) Refugee Crisis
  - (b) Drug Trafficking
  - (c) International Organised Crime
  - (d) Biodiversity Conservation
- 13. With reference to the Carbon-dioxide Removal (CDR) technique, consider the following statements:
  - 1. It encompasses direct air capture and soil carbon sequestration methods.
  - 2. It refers to point source carbon capture for fossil fuel.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 14. With reference to the Biodiversity Beyond National Jurisdiction (BBNJ) Treaty, consider the following statements:
  - 1. It applies to the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction (ABNJ), including the high seas and the deep seabed.
  - 2. It does not cover areas within national borders or activities under existing legal frameworks.
  - 3. The treaty was developed within the framework of UNCBD.

Which of the statements given above are correct?

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

- (c) 1 and 3 only
- (d) 1, 2 and 3
- 15. Which of the following statements is correct regarding the Kunming-Montreal Global Biodiversity Framework?
  - 1. The framework was adopted at the 15th Conference of Parties to the UN Convention on Biological Diversity.
  - 2. The framework has 23 targets that the world needs to achieve by 2050.

Choose the correct answer using the codes given below

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 16. Consider the following statements, with reference to the UN Climate Change Conference (COP 28):
  - 1. Loss and Damage (L&D) Fund was made operational at COP 28.
  - 2. India is among the signatories to the Climate and Health Declaration that came into being at COP28.
  - 3. The Global Methane Pledge was launched at COP28.

How many of the statements given above are correct?

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

17. With reference to the Namdapha flying squirrel, consider the following statements:

- 1. It is a nocturnal flying squirrel.
- 2. It is endemic to Arunachal Pradesh in northeast India.
- 3. It is listed as vulnerable under the IUCN red list of threatened species.

How many of the statements given above are correct?

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

18. Consider the following pairs

# Environmental Targets of India Completion Years

- 1. Five million tonnes of green hydrogen-2030
- 2. 500 GW of renewable energy installed capacity 2050
- 3. Net-zero carbon emissions 2070

How many of the above pairs are correctly matched?

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

- (d) None
- 19. With reference to the Hydroponics, consider the following statements:
  - 1. Plants are grown in highly fertile soil, requiring very less water, nutrients and a substrate.
  - 2. It allows water to be recirculated, ensuring that each seedling receives exactly the nutrients it needs.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 20. With reference to the Lantana camara, consider the following statements:
  - 1. It is a perennial shrub native to India.
  - 2. It possesses the remarkable ability to thrive in diverse climatic conditions, tolerating high temperatures and moisture.

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. How did Lantana camara, a perennial shrub, arrive in India?
  - (a) It is indigenous to India
  - (b) Introduced by ancient civilizations
  - (c) Introduced as a decorative shrub during the British colonial period
  - (d) Brought by migratory birds

# **EXPLANATIONS**

# 1. (b)

# Statements 1 and 3 are incorrect.

- Leaders of COP28 to the UNFCCC formally launched the Climate Club in December 2023.
- Led by Germany and Chile, the Club has garnered support from 36 member countries only, including Kenya, the European Union, Switzerland and others.
  - The Club is claimed to currently represent 55 percent of the global economy.
  - The members are committed to develop strategies and standards for decarbonisation.
- Key priorities for the Club:
  - Standardising emission calculations for carbon dioxide (CO2) intensities of certain products,
  - Strategic discussions on definitions for net-zero emissions for steel and cement, and
  - Establishment of a platform matching member needs with available financing instruments from the public and private sector.

# 2. (d)

The World Meteorological Organization (WMO) released the Decadal State of the Climate (2011-2020) report on the sidelines of the UN climate conference (COP28).

• The report highlighted the "accelerated" rise in the global mean sea level, mostly due to a speeding up of ice mass loss from the Greenland ice sheet, and, to a lesser extent, due to accelerated glacial melting and ocean warming.

#### About World Meteorological Organization (WMO):

- It is an intergovernmental organization with a membership of 193 Member States and Territories.
- It was established by the ratification of the WMO Convention in 1950, WMO became the specialised agency of the United Nations for meteorology (weather and climate), operational hydrology and related geophysical sciences.
- The Secretariat, headquartered in Geneva, is headed by the Secretary-General.
- 3. (c)

Both the Statements are correct.

#### **Basel Convention**

- The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, is an international treaty that was designed to reduce the movements of hazardous waste between nations, and specifically to prevent transfer of hazardous waste from developed to less developed countries.
- It does not, however, address the movement of radioactive waste.
- 4. (a)

#### Statement 1 is correct:

- Environment Impact Assessment (EIA): It is one of the processes defined by the United Nations Environment Programme (UNEP) as a tool to identify the environmental, social, and economic impacts of a project before it is implemented.
- It compares various alternatives for the proposed project, predicts and analyses all possible environmental repercussions in various scenarios.

#### Statement 2 is not correct:

- EIA in India: In January 1994, the MoEFCC under the Environment (Protection) Act 1986, promulgated the first EIA notification making Environmental Clearance mandatory for setting up some specified new projects and also for expansion or modernisation of some specific activities.
  - This was later replaced by the EIA 2006 notification.

## 5. (c)

## About Miyawaki Plantation Method

- It is the Japanese method of creating urban dense forests in a small area and creating a dense canopy layer of tall trees.
- It was developed in the 1970s and named after Japanese botanist Akira Miyawaki.
- It involves planting native trees, shrubs and groundcover plants within every square metre, and to create an arrangement of fast-growing, dense, varied species of plants, 20 times faster than normal.
- The species chosen for Miyawaki plantation can survive harsh weather and water-scarce conditions and grow rapidly in existing conditions yielding thick pockets of green cover.

#### 6. (d)

Statement 1 is not correct: Oil and Gas Decarbonization Charter(OGDC) urges the oil and gas industry to attain net-zero emissions in their operations by 2050.

Statement 2 is not correct: It is launched by UAE and Saudi Arabia.

7. (b)

#### Statement 1 is not correct:

- The 'Global Status of Multi-Hazard Early Warning Systems 2023' report analyses the latest data one year into the Early Warnings for All Initiative.
  - The Early Warnings For All Initiative (EW4All) was formally launched at the COP27 in 2022 meeting in Sharm El-Sheikh.
  - It is a groundbreaking initiative to ensure that everyone on Earth is protected from hazardous weather, water, or climate events through life-saving early warning systems by the end of 2027.

#### Statement 2 is correct:

- It aligns with the priorities of the Paris Agreement and supports key provisions of the Sendai Framework for Disaster Risk Reduction, particularly on availability and accessibility of multi-hazard early warning systems.
- It also contributes to delivering the targets of the 2030 Agenda for Sustainable Development on poverty, hunger, health, water, clean energy, climate action and sustainable cities.

## 8. (c)

Both the Statements are correct.

## Asola Bhatti Wildlife Sanctuary

- It is on the Southern Delhi Ridge of Aravalli hill range on Delhi-Haryana border .
- Historical place around sanctuary are Surajkund and Anangpur Dam (both in Haryana), Tughlaqabad Fort and Adilabad ruins (both in Delhi), Chhatarpur Temple (in Delhi)
- It recorded 25 species of mammals including Leopard (Panthera pardus), Striped Hyena (Hyaena hyaena).
- This is an important habitat for the Indian leopard. Endangered species in the sanctuary include red-headed vulture and Egyptian vulture.

## 9. (d)

Statements 1, 2 and 3 are correct : IPCC is an intergovernmental body of the United Nations (UN).

- Established by World Meteorological Organisation (WMO) and United Nations Environment Programme (UNEP) in 1988
  - It provides objective scientific information in order to understand human- induced climate change.
    - It also covers natural, political & economic impacts of these anthropogenic climate changes and possible response options.
  - Its main activity is to prepare Assessment Reports, special reports, and methodology reports assessing the state of knowledge of climate change.
    - However, the IPCC does not itself engage in scientific research. Instead, it asks scientists from around the world to go through all the relevant scientific literature related to climate change and draw up the logical conclusions.

## 10. (b)

Statement 1 is not correct and Statement 2 is correct.

## **Budgett's Frog**

• Budgett's frog, scientifically known as Lepidobatrachus laevis, is a unique and distinctive species of frog native to South America.

- Budgett's frog is known for its unique vocalizations, which can include grunts and growls.
- IUCN status: Least Concern

## 11. (a)

About the Global River Cities Alliance:

- Origins: Inspired by India's River Cities Alliance (RCA).
- Launched: In November 2023 at COP28 in Dubai.
- Led by: NMCG in association with NIUA (National Institute of Urban Affairs).
- Members: Nine-India, Denmark, Cambodia, Japan, Bhutan, Australia, Netherlands, Egypt, and Ghana.
- Vision and goals:
  - To promote sustainable river-centric development in cities around the world.
  - To create a platform for knowledge sharing, collaboration, and peer-to-peer learning among member cities.
  - To contribute to achieving the Sustainable Development Goals (SDGs), particularly SDG 6 (Clean water and sanitation) and SDG 11 (Sustainable cities and communities).

# 12. (d)

Option d is correct: The Kunming Declaration was adopted by over 100 countries on October 13, 2021, in China at the 15th meeting of the Conference of the Parties to the United Nations Convention on Biological Diversity.

- It calls upon the parties to "mainstream" biodiversity protection in decision-making and recognises the importance of conservation in protecting human health.
- Kunming Declaration acknowledges that the aim of the post-2020 global biodiversity framework should be to reverse biodiversity loss by 2030.
- Securing and maintaining a high-level political commitment to reverse the loss of biodiversity this decade is a critical first step to addressing the current nature crisis.

# 13. (a)

Statement 1 is correct:

- Carbon-dioxide Removal (CDR): It refers to technologies, practices and approaches that remove and durably store carbon dioxide (CO2) from the atmosphere.
- It encompasses a wide array of approaches, including direct air capture (DAC) coupled to durable storage, soil carbon sequestration, biomass carbon removal and storage, enhanced mineralization, ocean-based CDR, and afforestation/reforestation.

# Statement 2 is not correct:

• Carbon-dioxide Removal (CDR) does not refer to point source carbon capture for the fossil fuel or industrial sector.

# 14. [ANS] a

Statement 3 is not correct.

- The BBNJ Agreement is an international agreement on the conservation and sustainable use of marine biological diversity in areas beyond national jurisdiction, which accounts for more than 60% of the world's oceans.
- Adopted in: March 2023.
- Scope: Protecting and managing marine biodiversity in areas beyond national jurisdiction, including the high seas, the deep seabed, and the water column.
- Excludes: Areas within national borders, such as territorial waters and exclusive economic zones.

• This agreement was developed within the framework of UNCLOS.

#### 15. (a)

The ambitious Kunming-Montreal Global Biodiversity Framework (KMGBF), recently completed one year of its adoption.

#### About the KMGBF

- It was adopted at the Convention on Biological Diversity's (CBD) 15th Conference of Parties (CoP15). Hence statement 1 is correct
- The framework has 23 targets that the world needs to achieve by 2030.
  - It has set a target of protecting 30% of the world's land and seas by the decade's end, a goal known as "30-by-30". Hence, statement 2 is not correct.
- The deal also directs countries to allocate \$200 billion per year for biodiversity initiatives from both the public and private sectors.
- The Global Environment Facility has been requested to establish a Special Trust Fund(GBF Fund) to support the implementation of the Global Biodiversity Framework .

#### 16. (a)

Statement 1 is correct: Loss and Damage (L&D) Fund: It was created during COP 27, it was made operational in COP28.

• COP 28 approved the Governing instrument of the Loss and Damage Fund and decided that the Fund will be serviced by a new, dedicated and independent secretariat.

Statement 2 and 3 are not correct: Climate and Health Declaration: The U.A.E. declaration on climate and health came into being at COP28 through a partnership of the COP28 Presidency with the World Health Organisation.

- The declaration, signed by 123 countries, has collectively committed \$1 billion to address the growing climate-health crisis.
- India didn't sign this declaration as India's healthcare infrastructure is still growing to meet demand, such a commitment could compromise the healthcare requirements of a growing population.

• The Global Methane Pledge: It was launched at COP26 and received renewed attention at COP28, with the Climate and Clean Air Coalition becoming the new secretariat.

- More than 150 countries signed the pledge to reduce methane pollution.
- India isn't a signatory to this pledge because it shifts focus from carbon dioxide to methane, a GHG with a lower lifetime.

## 17. (b)

Statement 1 and 2 are correct: The Namdapha flying squirrel (Biswamoyopterus biswasi) is an arboreal (living in trees), nocturnal flying squirrel endemic to Arunachal Pradesh in northeast India, where it is known from a single specimen collected in Namdapha National Park in 1981.

Statement 3 is not correct: Threats: Poaching and potential habitat destruction, highlighting the need for robust conservation strategies.

- Conservation Status:Critically endangered by the IUCN.
  - The Wildlife Protection Act of India placed it under Schedule I, indicating the highest level of protection.

## 18. (b)

**In News :** India will witness more than 83% increase in investments in renewable energy (RE) projects to about \$16.5 billion in 2024, Power Ministry estimates show.

- India has set a target to reduce the carbon intensity of the nation's economy by less than 45% by the end of the decade, achieve 50 percent cumulative electric power installed by 2030 from renewables, and achieve net-zero carbon emissions by 2070. (Pair 3 is CORRECTLY MATCHED)
  - India aims for 500 GW of renewable energy installed capacity by 2030.(Pair 2 is INCORRECTLY MATCHED )
- India aims to produce five million tonnes of green hydrogen by 2030. (Pair 1 is CORRECTLY MATCHED )This will be supported by 125 GW of renewable energy capacity.

#### 19. (b)

Statement 1 is not correct: In hydroponics, plants are grown without soil, requiring only water, nutrients and a substrate - something for their roots to attach to.

Statement 2 is correct: This closed system allows water to be recirculated, ensuring that each seedling receives exactly the nutrients it needs.

• As a result, very little water is used and all the nutrients remain in the system.

#### 20. (b)

Statement 1 is not correct: Lantana camara, a perennial shrub native to the American tropics and a member of the Verbenaceae family.

• Lantana is not native to India. It was introduced in the country as an ornamental plant by the British in the 1800s.

Statement 2 is correct: It possesses the remarkable ability to thrive in diverse climatic conditions, tolerating high temperatures and moisture.

#### 21. (c)

#### About Lantana camara

- Lantana camara, a perennial shrub native to the American tropics and a member of the Verbenaceae family.
- It possesses the remarkable ability to thrive in diverse climatic conditions, tolerating high temperatures and moisture.
- Lantana is not native to India. It was introduced in the country as an ornamental plant by the British in the 1800s.
- Lantana camara severely impacted the areas of Nilgiri Biosphere Reserve in the Western Ghats.

#### 

# **INTERNATIONAL RELATIONS**

- 1. Which of the following reports is published by the International Labour Organization (ILO)?
  - 1. Global Wage Report
  - 2. Future of Jobs Report
  - 3. World Employment and Social Outlook for Youth
  - 4. World of Work Report

Choose the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 1, 3 and 4 only
- (c) 1, 2 and 3 only
- (d) 1, 2, 3 and 4
- 2. With reference to the Codex Alimentarius Commission (CAC), consider the following statements:
  - 1. It is an intergovernmental food standards body, set up in 1963.
  - 2. It was established jointly by the UN's Food and Agriculture Organisation (FAO) and International Food Policy Research Institute (IFPRI).
  - 3. India is not a member of the commission.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 3. With reference to the United Nations Convention to Combat Desertification (UNCCD), consider the following statements:
  - 1. It is the sole legally binding international agreement linking environment and development to sustainable land management.
  - 2. It is one of five Conventions originated and adopted in 1972.
  - 3. Parties to the Convention meet in Conferences of the Parties (COPs) every two years, as well as in technical meetings throughout the year.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 4. With reference to the International Maritime Organisation (IMO), which of the following statements is/are correct?
  - 1. It was founded in 1958 and headquartered in London, UK.
  - 2. Recently, India was re-elected to the International Maritime Organisation (IMO) Council.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 5. Article 99 of the UN Charter, invoked recently by the UN Secretary General, is related to which of the following?
  - (a) To counter terrorism
  - (b) To reform the UN charter
  - (c) To take action against any matter which threatens international peace and security
  - (d) To invoke safeguards to ensure that the decisions taken by UNSC implemented properly
- 6. Consider the following statements:
  - 1. Interpol has an objective to facilitate international police cooperation even where diplomatic relations are not present between certain countries.
  - 2. India joined the Interpol in 1949.
  - 3. The Central Bureau of Investigation is the nodal police agency in India, which coordinates investigations on behalf of Interpol member nations.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1,2 and 3
- 7. With reference to the Antarctic Treaty which of the following statements is/are correct?
  - 1. It was signed at Washington D.C. in 1959 with the objective of the Demilitarisation of Antarctica.
  - 2. India has not signed this treaty yet.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 8. With reference to the Universal Declaration of Human Rights (UDHR), which of the following statements is/are correct?
  - 1. The day of adoption of the UDHR is commemorated as Human Rights Day.
  - 2. The declaration is legally binding on its members.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 9. Global Cooperation and Training Framework (GCTF) is established by Which of the following nations?
  - (a) India and the United Kingdom

- (b) Taiwan and the United Kingdom
- (c) Indonesia and the United States
- (d) Taiwan and the United States
- 10. With reference to the Asian Development Bank (ADB), consider the following statements:
  - 1. Only Asian Countries are part of the Organisation.
  - 2. The Board of Governors is its highest decision making body.
  - 3. It is headquartered in Beijing.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 11. With reference to the Arctic Council, consider the following statements:
  - 1. It was established by the eight Arctic States through the Ottawa Declaration.
  - 2. It is a treaty-based international legal entity for the allocation of resources to the member states.
  - 3. India is one of the observer member states of the Council.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 12. With reference to the Financial Action Task Force (FATF), which of the following statements is/are correct?
  - 1. It was established by the G7 to examine and develop measures to combat money laundering.
  - 2. Currently FATF has more than 80 members including India.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 13. With reference to the Global Partnership on Artificial Intelligence (GPAI) Council, consider the following statements:
  - 1. It provides strategic direction to GPAI and is responsible for all major decisions.
  - 2. It is led by a GPAI Member elected by simple majority vote and serves a one-year term.

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. Tax Inspectors without Borders (TIWB) is an initiative of which of the following organizations?

- (a) United Nations Development Programme (UNDP) and Organisation for Economic Cooperation and Development (OECD)
- (b) World Trade Organization (WTO) and Organisation for Economic Cooperation and Development (OECD)
- (c) World Trade Organization (WTO) and United Nations Development Programme (UNDP)
- (d) United Nations Conference on Trade and Development (UNCTAD) and World Trade Organization (WTO)
- 15. With reference to the European Free Trade Association (EFTA), consider the following statements:
  - 1. It is the intergovernmental organisation of Finland, Sweden, Norway and Switzerland.
  - 2. India has signed the Trade and Economic Partnership Agreement (TEPA) with it in 2022.

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. Operation Prosperity Guardian is sometimes mentioned in news in reference to:
  - (a) Combat deforestation in Amazon forests
  - (b) Counter the Houthi threat in the Red Sea
  - (c) Counter the Human trafficking in border areas
  - (d) Combat misuse of Deep Fakes
- 17. Consider the following statements:
  - 1. BIMSTEC is a regional group of seven members established through the Bangkok Declaration.
  - 2. Eastern Economic Forum (EEF) is a joint initiative of the East Asian countries to develop East Asia.
  - 3. The Mekong-Ganga Cooperation (MGC) is an initiative by India and all the ASEAN nations.

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

- (a) 1 and 2 only
- (b) 1 only
- (c) 2 and 3 only
- (d) 1, 2 and 3
- 18. With reference to the World Bank, which of the following statements is/are correct?
  - 1. It traces its origin from the Bretton Woods Conference, 1944.
  - 2. It is the collective name for the International Bank for Reconstruction and Development (IBRD) and Multilateral Guarantee Agency (MIGA).

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 19. Which among the following are the Multilateral Development Banks (MDB)?
  - 1. International Monetary Fund (IMF)

- 2. Asian Development Bank (ADB)
- 3. African Development Bank (AfDB)
- 4. The World Bank

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 2, 3 and 4 only
- (d) 1, 2, 3 and 4
- 20. Recently, which of the following countries announced its departure from the Organization of the Petroleum Exporting Countries (OPEC)?
  - (a) Saudi Arabia
  - (b) Gabon
  - (c) Algeria
  - (d) Angola
- 21. With reference to the Organization of the Petroleum Exporting Countries (OPEC), which of the following statements is/are correct?
  - 1. It was established in 1973 at the Baghdad conference.
  - 2. The member countries of OPEC belong only from Asia and Africa.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 22. With reference to the World Trade Organization (WTO), which of the following statements is/are correct?
  - 1. It was founded in 1944 and headquartered in Geneva, Switzerland.
  - 2. More than 100 countries are members of the WTO.

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. Article IV Consultations, recently seen in the news, is related to which of the following?
  - (a) United Nations Security Council(UNSC) reforms
  - (b) India Pakistan relations with respect to the Indus Water Treaty
  - (c) Regular discussion held between the World Bank and its member countries
  - (d) Regular discussion held between the IMF and its member countries
- 24. Consider the following statements with respect to Association of Southeast Asian Nations (ASEAN):
  - 1. It was established in 1967 with the signing of the Baghdad Declaration.
  - 2. The First ASEAN Summit was held in Indonesia in 1976.

3. India became an ASEAN Dialogue Partner in 1996.

Which of the statements given above is/are correct?

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

25. With reference to the North Atlantic Treaty Organization (NATO), consider the following statements:

- 1. Poland, Greece and Belgium are among the founding members of NATO.
- 2. The North Atlantic Council is the principal political decision-making body.
- 3. Sweden became the 31st member of the organisation in 2023.

How many of the statements given above are correct?

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

# **EXPLANATIONS**

# 1. (b)

About International Labour Organization: It is an United Nations Agency established in 1919 as part of the Treaty of Versailles that ended World War I, and it became the first specialized agency of the UN in 1946.

- Major Reports: World Employment and Social Outlook (WESO), Global Wage Report, World Social Protection Report, World Employment and Social Outlook for Youth, World of Work Report.
- The Future of Jobs Report is published by the World Economic Forum (WEF).

# 2. (a)

Statement 1 is correct: It is an intergovernmental food standards body, set up in 1963. The term "Codex Alimentarius" is Latin for "Food Code."

Statement 2 and 3 are not correct: It was established jointly by the UN's Food and Agriculture Organisation (FAO) and the World Health Organisation (WHO), within the framework of the Joint Food Standards Programme.

- Objective: To protect consumer's health and ensure fair practices in the food trade.
- India became a member in 1964.

# 3. (b)

# Statement 1 is correct:

• United Nations Convention to Combat Desertification (UNCCD): It is the sole legally binding international agreement linking environment and development to sustainable land management and helps people, communities and countries create wealth, grow economies and secure enough food, clean water and energy by ensuring land users an enabling environment for sustainable land management.

#### Statement 2 is not correct:

- UNCCD is one of three Conventions originated at the 1992 Earth Summit in Rio de Janeiro, and adopted in 1994.
  - The other two address Climate Change (UNFCCC) and Biodiversity (UN CBD).
- The Convention addresses specifically the arid, semi-arid, and dry sub-humid areas, known as the drylands, where some of the most vulnerable ecosystems and peoples can be found.

#### Statement 3 is correct:

 Parties to the Convention meet in Conferences of the Parties (COPs) every two years, as well as in technical meetings throughout the year, to advance the aims and ambitions of the Convention and achieve progress in its implementation.

#### 4. (b)

#### Statement 1 is not correct and Statement 2 is correct.

#### News

 India was re-elected to the International Maritime Organisation (IMO) Council with the highest tally at elections held at its Assembly in London for the 2024-25 biennium.

#### International Maritime Organisation (IMO)

- The IMO is the premier body that oversees the maritime sector, which in turn underpins international trade, transport and all maritime activities.
- Headquarters: London, UK
- Founded: 1948
- Members: IMO currently has 175 Member States and three Associate Members.

#### Structure of IMO

- The Organization consists of an Assembly, a Council, five main Committees and a number of Sub-Committees.
- The Assembly is the highest Governing Body of the Organization. It consists of all Member States and it meets once every two years.
- The council is the executive organ of IMO and is responsible, under the Assembly, for supervising the work of the organisation.

#### 5. (c)

#### Article 99 of the UN Charter

- Article 99 states: "The Secretary-General may bring to the attention of the Security Council any matter which in his opinion may threaten the maintenance of international peace and security."
- It is seen as a discretionary power.
- According to the UN, the President of the Security Council is under the obligation to call a meeting of the Council if the Secretary-General brings to the attention of the Council any matter under Article 99.

#### 6. (d)

In News: The international criminal police organization (Interpol), has conducted 'Operation Storm Makers II'.

#### About INTERPOL

Interpol is an intergovernmental organization, which stands for International Criminal Police
 Organization. It connects police around the world – both technically and in person. It is the world's

largest and only organization with the mandate and technical infrastructure to share police information globally.

- It facilitates police cooperation even where diplomatic relations do not exist between particular countries, in line with INTERPOL's objective of political neutrality.
- Background: It was founded in 1923 at the International Police Congress in Vienna as the International Criminal Police Commission (ICPC). In 1956, the ICPC adopted the name Interpol.
- Members: It has 196 member countries, including India.
- Headquarters: Lyon, France
- India joined the Interpol in 1949.
- The CBI (Central Bureau of Investigation) is the nodal police agency in India, which coordinates investigations on behalf of Interpol Member countries.

#### 7. (a)

Statement 1 is correct and Statement 2 is not correct.

#### India and Antarctica

- Antarctic Treaty: The Treaty covers the area south of 60°S latitude.
- It was signed at Washington D.C. in 1959 with the objective of the Demilitarisation of Antarctica.
- The signatories are supposed to bring laws so that no activity in contravention of the treaty takes place. India signed the treaty in 1983 and received the consultative status.
- Member: A total of fifty-four State Parties to the Treaty, twenty-nine countries have the status of Consultative Party with a right to vote in the Antarctic Consultative Meetings and twenty-five countries are Non-Consultative Parties having no right to vote.

#### 8. (a)

Statement 1 is correct and Statement 2 is not correct.

## Context

• 10 December 2023 marks the 75th anniversary of the Universal Declaration of Human Rights (UDHR).

#### About

- Human Rights Day: It is the day on which the United Nations General Assembly adopted the Universal Declaration of Human Rights in 1948.
  - The UDHR document enshrines the inalienable rights that everyone is entitled to as a human being - regardless of race, color, religion, sex, language, political or other opinion, national or social origin, property, birth or other status.
- The declaration is not a treaty and is not legally binding in itself, but the principles it sets out have been incorporated into many countries' laws and it is viewed as the basis for international human rights law.

## 9. (d)

#### In News

• Representatives from the United States, India, and Taiwan met in a joint workshop which was convened under the Global Cooperation and Training Framework (GCTF).

## About Global Cooperation and Training Framework (GCTF)

• On June 1, 2015, Taiwan and the United States signed a memorandum of understanding to establish the Global Cooperation and Training Framework (GCTF).

- It is a platform to utilize Taiwan's strengths and expertise to address global issues of mutual concern.
  - Taiwan has world-class experts in a wide variety of fields, including public health, law enforcement, disaster relief, energy cooperation, women's empowerment, digital economy and cyber security, media literacy, and good governance.

#### 10. (a)

Statement 1 is not correct: Establishment: It was established in 1966 as a financial institution that would be Asian in character and foster economic growth and cooperation in one of the poorest regions in the world.

• Members: It has 68 members, of which 49 are from the Asia-Pacific region and 19 are from other parts of the world, including North America and Europe.

Statement 2 is correct: Highest decision-making body: Board of Governors, consisting of representatives from each member country.

Statement 3 is not correct: Headquarters: Manila, Philippines.

## 11. (b)

Statement 1 is correct: The Arctic Council was established by the eight Arctic States — the countries whose territories fall in the Arctic region — through the Ottawa Declaration of 1996. The eight Arctic States — Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden and the United States — are the only members of the Arctic Council.

Statement 2 is not correct: The Arctic Council is not a treaty-based international legal entity like the UN bodies or trade, military or regional groupings like WTO, NATO or ASEAN. It is only an intergovernmental 'forum' to promote cooperation in regulating the activities in the Arctic region. It is a much more informal grouping.

Statement 3 is correct: India was given the Observer status in 2013, along with five other countries — China, Italy, Japan, South Korea, and Singapore. Prior to this, only France, Germany, the Netherlands, Poland, Spain and the United Kingdom were granted Observer status.

# 12. (a)

Statement 1 is correct and 2 is not correct.

## Financial Action Task Force (FATF)

- The Financial Action Task Force (FATF) is an intergovernmental organization which leads global action to tackle money laundering, terrorist and proliferation financing.
- History: FATF was established in 1989 by the G7 to examine and develop measures to combat money laundering. It originally included the G7 countries, the European Commission and eight other countries. In 2001, the FATF expanded its mandate to also combat terrorist financing.
- Members: FATF has 40 members including India. Recently Indonesia has become a member of FATF.

## 13. (a)

## Statement 1 is correct:

- The GPAI Council: It is an all-Member body that provides strategic direction to GPAI and is responsible for all major decisions, including on membership and participation.
- It convenes in two formats:
  - Ministerial Council having high-level representatives from all GPAI Members.
  - Working level Executive Council with representatives from all GPAI Members.

#### Statement 2 is not correct:

- It is led by three GPAI Members serving in staggered one-year terms the current year Lead Chair supported by Outgoing and Incoming Support Chairs.
- It elects a new Incoming Chair annually by a simple majority vote.

#### 14. (a)

Context: Saint Lucia's Tax Inspectors without Borders (TIWB) programme launched in partnership with India.

#### Tax Inspectors without Borders (TIWB)

- TIWB is a joint initiative of the United Nations Development Programme (UNDP) and Organisation for Economic Cooperation and Development (OECD).
- Modus Operandi: It deploys qualified experts in developing countries across Africa, Asia, Eastern Europe, Latin America and the Caribbean. They train the local countries' personnel in fields of;
  - Tax capacity and audits,
  - o Criminal tax investigations and
  - The effective use of automatically exchanged information.

#### 15. (d)

Both the statements are not correct: The European Free Trade Association (EFTA) is the intergovernmental organisation of Iceland, Liechtenstein, Norway and Switzerland.

- It was set up in 1960 by its then seven Member States for the promotion of free trade and economic integration between its members.
- Trade and Economic Partnership Agreement (TEPA) Negotiations between India and the European Free Trade Association (EFTA) on a trade deal have run into a logjam because of Switzerland's concerns.
  - Talks on the trade deal began in 2008 and negotiations resumed again in 2016.

#### 16. (b)

Counter the Houthi threat in the Red Sea

#### Context

- Recently, the United States has announced the creation of a new multinational task force, named Operation Prosperity Guardian to counter the Houthi threat in the Red Sea.
- The Task Force will include the Navies of Bahrain, Canada, France, Italy, Netherlands, Norway, Seychelles, Spain, and the United Kingdom.

## 17. (b)

Statement 1 is correct: BIMSTEC is a regional group of seven members named Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan, and Nepal, established in 1997 through the Bangkok Declaration. Bangladesh, India, Sri Lanka and Thailand are the founding members. The group's main objectives are to strengthen and improve the economic, international trade, and foreign direct investment cooperation.

Statement 2 is not correct: The Eastern Economic Forum(EEF) was established by a decree of the President of the Russian Federation, Vladimir Putin, in 2015, to support the economic development of Russia's Far East and to expand international cooperation in the Asia-Pacific region.

Statement 3 is not correct: The Mekong-Ganga Cooperation (MGC) is an initiative by six countries – India and five ASEAN countries, namely, Cambodia, Laos, Myanmar, Thailand and Vietnam (the Mekong passes through these five countries along with China). It is not an initiative of all ASEAN countries. Hence, statement 3 is not correct.

#### 18. (a)

Statement 1 is correct and Statement 2 is not correct.

#### World Bank

- The World Bank Group is an international partnership comprising 189 countries and five constituent institutions that works towards eradicating poverty and creating prosperity. It traces its origin to the Bretton Woods Conference, 1944.
- The five development institutions under the World Bank Group are:
  - International Bank for Reconstruction and Development (IBRD)
  - o International Development Association (IDA)
  - International Finance Corporation (IFC)
  - Multilateral Guarantee Agency (MIGA)
  - International Centre for the Settlement of Investment Disputes (ICSID)
- The World Bank is the collective name for the International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA), two of five international organizations owned by the World Bank Group.
- Headquarters: Washington, D.C

## 19. (d)

Multilateral Development Banks are institutions whose members include multiple developed and developing countries, which have to fulfil certain lending obligations to facilitate developmental objectives.

- They provide financial and technical assistance to developing countries.
- Usually, developed countries in MDBs contribute to the lending pool while developing countries primarily borrow from these institutions to fund development projects.
- Some Multilateral Development Banks include: World Bank Group, International Monetary Fund (IMF), Asian Development Bank (ADB), African Development Bank (AfDB).

## 20. (d)

## Angola

## Context

 Africa's second-biggest oil producer 'Angola' is leaving OPEC after disagreements over production targets.

## About OPEC

- The Organization of the Petroleum Exporting Countries (OPEC) was established in 1960 at the Baghdad conference.
- Headquarters: Vienna, Austria
- Member: Currently, it has 13 members including Angola, Saudi Arabia, Iran, Iraq, Kuwait and Venezuela.
  - Angola had joined OPEC in 2007.

# 21. (d)

Both the Statements are not correct.

## Context

• Africa's second-biggest oil producer 'Angola' is leaving OPEC after disagreements over production targets.

## About OPEC

- The Organization of the Petroleum Exporting Countries (OPEC) was established in 1960 at the Baghdad conference.
- Headquarters: Vienna, Austria
- Member: Currently, it has 13 members from Asia, Africa and South America (Venezuela).

# 22. (b)

Statement 1 is not correct and Statement 2 is correct.

# World Trade Organization (WTO)

- WTO is the international organization that deals with the rules of trade between countries.
- History: WTO was founded in 1995. It is the successor to the General Agreement on Tariffs and Trade (GATT) established in the wake of the Second World War.
- Headquarters: Geneva, Switzerland
- Member: The WTO is run by its 164 members.

# 23. (d)

The Article IV Consultations:

- An Article IV Consultation is a regular discussion held between the IMF and its member countries, typically once a year.
- It's essentially a health check of the country's economy, aiming to:
  - Assess the overall economic situation
  - o Identify potential risks and vulnerabilities and
  - Provide policy advice

# 24. (c)

India and the Association of SouthEast Asian Nations (ASEAN) will begin negotiations to modernize their free trade agreement (FTA) to bring more balance in the pact.

- Statement 1 is not correct : Association of Southeast Asian Nations (ASEAN)
  - It is a political and economic organization aimed primarily at promoting economic growth and regional stability among its members.
  - Members: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.
- It was established in 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (Bangkok Declaration) by the Founding Fathers of ASEAN: Indonesia, Malaysia, Philippines, Singapore and Thailand.
  - Brunei Darussalam joined ASEAN in 1984, followed by Vietnam in 1995, Lao PDR and Myanmar in 1997, and Cambodia in 1999.

Statements 2 and 3 are correct : ASEAN Summit is the highest policy-making body in ASEAN comprising the Head of States or Government of ASEAN Member States.Summit is held twice annually.

- The First ASEAN Summit was held in Bali, Indonesia in 1976.
- India became an ASEAN Dialogue Partner in 1996.
  - ASEAN accounted for 11.3% of India's global trade in 2022-23.

# 25. (a)

Statement 1 is not correct: NATO, or the North Atlantic Treaty Organization, is a military alliance of countries .

• The foundations of NATO were officially laid down in 1949 with the signing of the North Atlantic Treaty, more popularly known as the Washington Treaty.

- Founding Members: The original members of NATO were Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom, and the United States.
- Statement 2 is correct: Decision-Making: Decisions within NATO are made on the basis of consensus among member countries.
  - The North Atlantic Council, which includes the ambassadors of all member countries, is the principal political decision-making body.
- Statement 3 is not correct: Members: It has 31 member countries, Finland became 31st member in 2023.
  - On signing the Treaty, countries voluntarily commit themselves to participating in the political consultations and military activities of the Organization.

## 

# **MISCELLENEOUS**

- 1. Consider the following statements:
  - 1. Malnutrition refers to deficiencies or excesses in nutrient intake.
  - 2. Overweight and obesity are the conditions under the 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. Consider the following statements:
  - 1. Canada was the first country to legalise same-sex marriages in 2001.
  - 2. In 2023 Bangladesh became the first South Asian country to officially register same-sex marriage. 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 term 'JT-60SA' was sometimes mentioned in the news, in context of:
  - (a) Drone surveillance
  - (b) Nuclear energy
  - (c) Rice variety
  - (d) Fungal disease
- 4. Operation Storm Makers II recently seen in the news, is related to which of the following?
  - (a) Combat Heat Waves

- (b) Combat Cybercrime
- (c) Combat Land degradation
- (d) Combat Water Pollution
- 5. "Regional Overview of Food Security and Nutrition 2023: Statistics and Trends" report, recently published by which of the following organizations?
  - (a) World Health Organisation(WHO)
  - (b) UN Food and Agriculture Organisation (FAO)
  - (c) World Food Council
  - (d) International Fund for Agricultural Development (IFAD)
- 6. Which one of the following international bodies released the 'Global Status Report on Road Safety 2023'?
  - (a) International Development Association (IDA) of World Bank
  - (b) World Trade Organization (WTO)
  - (c) World Health Organisation (WHO)
  - (d) United Nations Industrial Development Organization (UNIDO)
- 7. The term 'Barracuda' sometimes appeared in the news, in context of:
  - (a) Asteroid
  - (b) Solar-electric boat
  - (c) Water harvesting system
  - (d) Isthmus
- 8. With reference to the Indira Gandhi Prize for Peace, Disarmament and Development for 2023, consider the following statements:
  - 1. It is an annual award established by the Indira Gandhi Memorial Trust in India in 1986.
  - 2. In 2023, it was jointly awarded to Daniel Barenboim and Ali Abu Awwad for Israel-Palestine conflict resolution efforts.

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 Migration and Development Briefs Report 2023, which of the following statements is/are correct?
  - 1. The report is released by the World Economic Forum (WEF).
  - 2. Mexico saw the highest amount of remittance inflows in the world in 2023 surpassing India.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 10. With reference to the Padma Awards, consider the following statements :

- 1. They are conferred on the recommendations made by the Padma Awards Committee, which is constituted by the Prime Minister every year.
- 2. The nomination process is open to the public and self-nomination can not be made.
- 3. All persons without distinction of race, occupation are eligible for these awards excluding doctors and scientists.
- 4. The award amounts to a title and can be used as a suffix to the awardees' name.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- 11. With reference to the 'Nematocysts' which was sometimes appeared in the news, consider the following statements:
  - 1. These are found in jellyfish and corals.
  - 2. They consist of a capsule containing a coiled, thread-like tubule.

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 are the major contributions of Indian mathematician Srinivasa Ramanujan?
  - 1. Algebra
  - 2. Infinite series for pi
  - 3. Arithmetic
  - 4. Circle Method

Select the correct answer using the code given below:

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

# **EXPLANATIONS**

## 1. (c)

Both the statements are correct: What is Malnutrition?

- Malnutrition refers to deficiencies or excesses in nutrient intake, imbalance of essential nutrients or impaired nutrient utilization.
- The term malnutrition covers 2 broad groups of conditions.
  - Undernutrition—which includes stunting (low height for age), wasting (low weight for height), underweight (low weight for age) and micronutrient deficiencies or insufficiencies (a lack of important vitamins and minerals).

• Overweight, obesity and diet-related noncommunicable diseases (such as heart disease, stroke, diabetes, and cancer).

## 2. (d)

Both the Statements are not correct.

#### In News:

- Nepal formally registered the first case of same-sex marriage, five months after the Supreme Court issued an interim order clearing the way for such marriages in the largely conservative country. With this historic move, Nepal has become the first South Asian nation to do so.
- In 2001, the Netherlands became the first country in the world to create the possibility for two men or two women to marry.

## 3. (b)

Japan has unveiled the world's largest operational experimental nuclear fusion reactor, JT-60SA, in Naka, near Tokyo.

- JT-60SA is a joint international fusion experiment being built and operated by Japan and the European Union.
- It is a six-story-high tokamak, designed to contain and control plasma heated to a staggering 200 million degrees Celsius.
  - It is an upgrade to the previous JT-60. SA stands for 'Super, Advanced'.

## 4. (b)

The international criminal police organization (Interpol), has conducted 'Operation Storm Makers II', a global crackdown on criminal networks exploiting migrants for cyber fraud.

## About

- Operation Storm Makers II mobilized law enforcement in 27 countries across Asia and other regions to target human trafficking and migrant smuggling for cyber fraud.
- Fraud schemes include fake cryptocurrency investments, work-from-home, lottery and online gambling scams. Victims are often lured through fake job ads and forced to commit online fraud.

# 5. (b)

The Food and Agriculture Organisation (FAO) of the United Nations launched the Regional Overview of Food Security and Nutrition 2023: Statistics and Trends, a report recently.

# Major Highlights of the report:

- The report said, 74.1% of Indians were unable to afford a healthy diet in 2021. In 2020, the percentage was 76.2.
- The report said 16.6% of the country's population is undernourished.
- 31.7% of children of the country under five years of age suffered with stunted growth.
- For wasting (low weight for height), India recorded the highest rate in the region with 18.7% children under five years
- 2.8% of the children below five years in the country were overweight (high weight for age), while 1.6% of the country's adults are obese, as per the report.
- 53% of the country's women aged between 15 to 49 had anemia, which was the largest prevalence rate in the region in 2019.
- 6. (c)

The 'Global Status Report on Road Safety 2023' was released by the World Health Organisation (WHO) recently.

- It is the fifth in a series measuring progress in reducing road traffic deaths.
- It covers progress between 2010 and 2021 and sets a baseline for efforts to meet the United Nations Decade of Action 2021–2030 target to halve road traffic deaths by 2030.
- There has been a 5% reduction in global road crash deaths, dropped from 1.25 million to 1.19 million from 2011 to 2021.
  - It means that approximately 1.19 million people die each year as a result of road traffic crashes.
- The report analysed that the reduction in death has come despite a doubling of the global vehicle fleet, expanding road networks, and a rising global population.

#### 7. (b)

Barracuda, the fastest solar-electric boat of India was launched at Navalt Solar and Electric Boats in Alappuzha (Kerala) to boost eco-friendly maritime transportation.

- It was named after the swift and long fish (Barracuda).
- It was built in collaboration with Mazagon Dock Shipbuilders Ltd and Navalt Solar and Electric Boats.
- Top speed: 12.5 knots (23 kmph);
- Range: Seven hours on a single charge;
- Power: Twin 50 kW electric motors, a marine-grade LFP battery, and 6 kW solar power.

## 8. (c)

Both the statements are correct: It is an annual award established by the Indira Gandhi Memorial Trust in India.

The Indira Gandhi Prize for Peace, Disarmament and Development for 2023 has been jointly awarded to Daniel Barenboim and Ali Abu Awwad for Israel-Palestine conflict resolution efforts.

#### 9. (d)

Both the Statements are not correct.

## In Context

- The World Bank has released the Migration and Development Briefs Report 2023.
- India saw the highest amount of remittance inflows in the world in 2023.

## Major Highlights of the Report

- Trends: The growth of remittances to low- and middle-income countries (LMICs) slowed to 3.8 percent in 2023 after averaging about 9 percent over the previous two years.
- Largest Source of Remittances: The United States continued to be the largest source of remittances.
- Top Receipt: The top five remittance recipient countries in 2023 are India (\$125 billion), Mexico (\$67 billion), China (\$50 billion), the Philippines (\$40 billion), and Egypt (\$24 billion).

## 10. (a)

**In News:** Olympic medallist Bajrang Punia decided to return the Padma Shri award in protest over the Selection of the president of Wrestling Federation of India (WFI).

Statement 1 is correct : The Padma Awards are one of the highest civilian honours of India announced annually on the eve of Republic Day.

• The Awards are given in three categories:

- Padma Vibhushan (for exceptional and distinguished service),
- Padma Bhushan (distinguished service of higher order) and
- Padma Shri (distinguished service).
- The award seeks to recognize achievements in all fields of activities or disciplines where an element of public service is involved.
- The Padma Awards are conferred on the recommendations made by the Padma Awards Committee, which is constituted by the Prime Minister every year.

Statement 2,3 and 4 are not correct : The nomination process is open to the public. Even self-nomination can be made.

- All persons without distinction of race, occupation, position or sex are eligible for these awards. However, Government servants including those working with PSUs, except doctors and scientists, are not eligible for these Awards.
  - The award is normally not conferred posthumously. However, in highly deserving cases, the Government could consider giving an award posthumously.
  - The award does not amount to a title and cannot be used as a suffix or prefix to the awardees' name.

## 11. (c)

Statement 1 is correct: Nematocysts are found in some animals, but especially jellyfish, corals, sea anemones, and hydras, that serve as potent weapons to hunt prey and fend off predators.

• These are special stinging cells used to capture food.

Statement 2 is correct: Each nematocyst consists of a capsule containing a coiled, thread-like tubule and a bulbous structure with toxins.

## 12. (b)

Infinite series for pi: In 1914, Ramanujan found a formula for infinite series for pi, which forms the basis of many algorithms used today.

- Finding an accurate approximation of  $\pi$  (pi) has been one of the most important challenges in the history of mathematics.
- Circle Method: Ramanujan, along with GH Hardy, invented the circle method which gave the first approximations of the partition of numbers beyond 200.
  - This method contributed significantly to solving the notorious complex problems of the 20th century, such as Waring's conjecture and other additional questions.
- Other notable contributions by Ramanujan include hypergeometric series, the Riemann series, the elliptic integrals, the theory of divergent series, and the functional equations of the zeta function.
- An Indian mathematician and astronomer Brahmagupta is known as the Father of Arithmetic.
- Muhammad ibn Musa al-Khwarizmi was a 9th-century Muslim mathematician and astronomer. He is known as the "father of algebra".

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