

DAILY MCQs COMPILATION
with
EXPLANATIONS

SEPTEMBER 2024

NEXT IAS

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HISTORY, ART & CULTURE

1. 'The Presidential Years' is the memoir of which of the following personalities?
(a) Dr. APJ Abdul Kalam (b) Dr. Rajendra Prasad
(c) Pranab Mukherjee (d) Ram Nath Kovind
2. The dancers move around the center in a counter-clockwise circle, using simple movements while singing and clapping their hands in unison. Both men and women take part in the dance. Which of the following dances has been described above?
(a) Kalbeliya (b) Mohiniyattam
(c) Garba (d) Lavani
3. Consider the following pairs:
- | Harappan Site | Present Location |
|-----------------|------------------|
| 1. Mohenjo-Daro | Sindh, Pakistan |
| 2. Kalibangan | Haryana |
| 3. Alamgirpur | Uttar Pradesh |
- Which of the pairs given above is/are correctly matched?
(a) 1 and 2 (b) 2 only
(c) 1 and 3 (d) 3 only
4. He formulated the famous 'Drain of Wealth Theory'. He founded the East India Association in 1867. He was also the first Indian to be elected to the House of Commons in 1892. Which of the following personalities has been described above?
(a) Mahadev Govind Ranade (b) R.C. Dutt
(c) Dadabhai Naoroji (d) G. Subramania Iyer
5. Consider the following statements about the Konyak tribe:
1. The Konyak tribe is known for its historical practice of headhunting, a ritual believed to bestow power and prestige.
2. The Konyak language belongs to the Dravidian language family.
Which of the above statements is/are correct?
(a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2
6. Consider the following statements with reference to the Onam festival:
1. It is a harvest festival with origins in the state of Kerala.
2. The festival commemorates the Vamana avatar of Shiva.
Which of the statements given above is/are correct?
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

7. Consider the following:

He was awarded the Bharat Ratna and the Peace Prize of the German Book Trade. He also authored "The Philosophy of Rabindranath Tagore". He emphasized the moral and ethical role of education and believed that teachers are the backbone of a nation's progress.

The above paragraph described which of the following given personality?

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

8. Rama Varma IX, better known today as Sakthan Thampuran, ruled over which of the following kingdoms from 1790 to 1805?

- (a) Cochin (b) Hyderabad
(c) Mysore (d) Travancore

9. He represented the revolutionaries involved in the Kakori Case and is a recipient of Bharat Ratna award. He was also responsible for the establishment of Hindi as an official language of the central government and a few states.

Which of the following personalities has been described above?

- (a) Govind Ballabh Pant (b) Dr. B.R. Ambedkar
(c) Jawaharlal Nehru (d) Mahatma Gandhi

10. Consider the following statements with reference to the Great Stupa of Sanchi:

1. It is a UNESCO World Heritage site.
2. It was built in the third century BCE by Emperor Ashoka.

Which of the statements given above is/are correct?

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

11. Consider the following statements with reference to Hindi:

1. It is an Indo-Aryan language and one of the two official languages of the Government of India.
2. After English, it is the second most spoken language of the world.

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. Consider the following statements regarding the Irula Tribe:

1. They are classified as a Particularly Vulnerable Tribal Group (PVTG) in Tamil Nadu.
2. The Irula Tribe belongs to the Austro-Asiatic linguistic family.
3. They practice ancestor worship and are spread across Tamil Nadu, Karnataka, and Kerala.
4. The Irula language is written in the Tamil script.

Which of the statements given above are correct?

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

13. To integrate the princely state of Hyderabad, which of the following operations was launched by India?

- (a) Operation Sadbhavana (b) Operation Polo
(c) Operation Meghdoot (d) Operation Cactus

- 14.** Which among the following tribal communities is primarily associated with the celebration of Karma festival?
- (a) Bhil, Gond, and Kol (b) Santhal, Oraon, and Munda
(c) Khasi, Garo, and Jaintia (d) Toda, Kota, and Irula
- 15.** With reference to Periyar EV Ramasamy, which of the following statements is/are correct?
1. He started the Self-Respect Movement to redeem the identity and self-respect of Tamils.
 2. Earlier he was Congress worker but later resigned from the party in 1940.
- Select the correct answer using the code given below:
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 16.** He is the only Indian to have served as the Chief Justice of India (CJI), Vice President and Acting President of India.
- Which of the following personalities has been described above?
- (a) Ramaswamy Venkataraman (b) Mohammad Hidayatullah
(c) Kocheril Raman Narayanan (d) Neelam Sanjiva Reddy
- 17.** Consider the following statements:
1. Tirupati Temple is dedicated to Lord Sri Venkateswara, an incarnation of Vishnu.
 2. In 2009, the Tirupati laddu was granted the Geographical Indication tag.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 18.** Consider the following statements with reference to Kalaripayattu
1. It is an Indian classical dance form that expresses religious themes.
 2. It was originated in Andhra Pradesh.
- 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 Poona Pact, which of the following statements is/are correct?
1. It was signed between Mahatma Gandhi and Dr BR Ambedkar in 1938.
 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
- 20.** Which of the following statements correctly describes Koodiyattom?
- (a) It is a form of classical dance prevalent in Tamil Nadu.
(b) It is based on the full text of Sanskrit plays.
(c) It is one of the oldest traditional theatre forms of Kerala.
(d) It is exclusively performed by male actors.

- 21.** She was the first person to hoist the Indian Flag on foreign land. She has also penned revolutionary works such as 'Bande Mataram' & 'Madan's Talwar'.
Which of the following personalities has been described above?
- (a) Pritilata Waddedar (b) Bhikaji Cama
(c) Kanaklata Barua (d) Sarojini Naidu
- 22.** Consider the following statements:
1. Mankidia community is an Austro-Asiatic community .
 2. Mankidia constitute a semi-nomadic section of the Birhor tribe.
 3. Mankidia speak a form of Munda language.
- How many of the above statements are correct?
- (a) Only one (b) Only two
(c) All three (d) None
- 23.** He is regarded as the father of experimental fluid dynamics research in India. His efforts led to operational systems like INSAT- a telecommunications satellite, IRS - the Indian Remote Sensing satellite and the Polar Satellite Launch Vehicle (PSLV) that placed India in the league of space faring nations.
Which of the following personalities has been described above?
- (a) Dr. Vikram Sarabhai (b) Dr. A.P.J Abdul Kalam
(c) Dr. K. Radhakrishnan (d) Dr. Satish Dhawan
- 24.** In his book, "Barno-Porichoy" (Introduction to the letter), he refined the Bengali language and made it accessible to the common strata of the society. Tagore revered him as 'the father of modern Bengali prose'.
Which of the following personalities has been described above?
- (a) Ishwar Chandra Vidyasagar (b) Raja Ram Mohan Roy
(c) Sri Aurobindo (d) Shashi Bhusan Chatterjee
- 25.** Consider the following statements regarding the Jitiya or Jivitputrika Festival:
1. It is primarily celebrated by mothers in the states of Bihar, Uttar Pradesh, Jharkhand, and Nepal for the well-being and long life of their children.
 2. The festival is rooted in Hindu mythology, particularly the story of King Jimutavahana, who sacrificed himself for the welfare of others.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 26.** The newspapers — New India and Commonweal, were published by which among the following personalities?
- (a) Annie Besant (b) Mahatma Gandhi
(c) Dr. B.R. Ambedkar (d) Romesh Chunder Dutt
- 27.** He was inspired by the Ghadar Movement and Kartar Singh Sarabha's execution. In March 1926, he became the secretary of the Naujawan Bharat Sabha, a revolutionary organization. He threw a bomb in the Central Legislative Assembly in 1929 to protest two oppressive Bills. He is honored with the title "Shahid-e-Azam".

Who among the following personalities is described above?

- (a) Chandra Shekhar Azad (b) Ram Prasad Bismil
(c) Bhagat Singh (d) Sachindra Nath Sanyal

28. With reference to the Festivals of India, Consider the following pairs:

Festivals	State
1. Jivitputrika	: Bihar
2. Shigmo	: Goa
3. Lai Haraoba	: Manipur

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

29. Consider the following statements regarding the Poumai Naga Tribe:

- The Poumai Naga Tribe is primarily located in the states of Manipur and Arunachal Pradesh.
- They are known for their traditional pottery-making and salt production methods.
- The language spoken by the Poumai Naga Tribe is called Poula.

Which of the statements given above is/are correct?

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

30. Agariya and Maldhari communities are the inhabitants of which among the following regions?

- (a) Khasi hills (b) Sundarbans
(c) Chota Nagpur Plateau (d) Rann of Kutch

EXPLANATIONS

1. (c)

Context: Union Home Minister Amit Shah led the tributes to former President of India Pranab Mukherjee on his death anniversary (August 31).

About: Pranab Mukherjee

- He served as the **13th President of India** from 2012 to 2017.
- His memoir **‘The Presidential Years’** provides insights into his experiences and reflections during his presidency, offering a glimpse into the challenges and triumphs of his tenure.
- The many awards and honours conferred on him include the **Best Parliamentarian Award in 1997, Padma Vibhusan in 2008 and Bharat Ratna in 2019.**

2. (c)

Garba is a ritualistic and devotional dance that is performed on the occasion of the Hindu festival of Navaratri, which is dedicated to the worship of the feminine energy or ‘Shakti’.

About

- The name Garba derived from the Sanskrit term Garbha (womb) and Deep (small lamp). It is a popular dance of Gujarat.
- Traditionally Garba is performed around a centrally lit lamp or around the statue of the goddess Shakti. Both men and women take part in the dance.
- The dancers move around the centre in a counter-clockwise circle, using simple movements while singing and clapping their hands in unison.

3. (c)

Major Harappan Sites

Site	Present Day
Harappa	Punjab, Pakistan
Mohenjo-Daro	Sindh, Pakistan
Dholavira	Kutch district of Gujarat,
Kalibangan	Rajasthan
Lothal	Gujarat
Rakhigarhi	Haryana
Chanhudaro	Sindh, Pakistan
Ganweriwala	Punjab, Pakistan
Sutkagendor	Baluchistan Province, Pakistan
Alamgirpur	Uttar Pradesh

4. (c)

Context: Dadabhai Naoroji's birth anniversary was observed.

Dadabhai Naoroji

- Dadabhai Naoroji, the '**Grand Old Man of India**' was born on September 4, 1825.
- He formulated the famous '**Drain of Wealth**' Theory.
- He founded the **East India Association** in 1867. He was also the first Indian to be elected to the **House of Commons** in 1892.

5. (a)

In News: The Konyak Union, which is the apex body representing the Konyak community in Nagaland, has raised concerns regarding an "erroneous" boundary line shown on Google Maps that affects their traditional lands.

Statement 1 is correct: The Konyak tribe is historically known for the practice of headhunting, which was a ritual believed to bring power and prestige to the warriors.

Statement 2 is not correct: The Konyak language belongs to the Sino-Tibetan language family, not the Dravidian family.

6. (a)

Context

- Thousands of people flocked to the temple town of Thripunithura in Kerala to witness the traditional Atham pageantry, which marked the onset of Onam celebrations.

About: Onam festival

- **Origin:** Kerala, India
- **Type of Festival:** Harvest festival
- **Timing:** Malayalam calendar month of Chingam (August–September in the Gregorian calendar).
- **Significance:** The festival commemorates the Vamana avatar of **Vishnu**, the subsequent homecoming of the legendary Emperor Mahabali and mythologies of Hinduism related to Kashyapa and Parashurama.

7. (c)

He was the renowned Indian Philosopher Dr. Sarvepalli Radhakrishnan. He served as India's first Vice-President from 1952 to 1962 and as the second President from 1962 to 1967. His birth

anniversary, celebrated since 1962 as National Teachers' Day, honors his contributions to education and his belief in the moral and ethical role of teachers in nation-building. He was awarded Bharat Ratna in 1954 and Peace Prize of the German Book Trade in 1961. He authored "The Philosophy of Rabindranath Tagore".

8. (a)

Raja Rama Varma Kunjipillai or Rama Varma IX, better known today as **Sakthan Thampuran**, ruled over the Cochin kingdom from 1790 to 1805.

- He was born in **1751** to Ambika Thampuran and Chendose Aniyam Namboodiri of the Cochin royal family, but was raised by an aunt who called him **Sakthan**, meaning 'powerful'.
- The word thampuran is believed to be an appropriation of the **Sanskrit samrat**, meaning emperor.

9. (a)

Context: Recently, Govind Ballabh Pant's birth anniversary was observed.

Govind Ballabh Pant

He was born on 10 September, 1887.

He **represented the revolutionaries** involved in the **Kakori Case**.

He was awarded the **Bharat Ratna** on 26 January, 1957.

He was also responsible for the establishment of **Hindi** as an official language of the central government and a few states.

10. (c)

Context

The External Affairs Minister stopped by the **replica of the East Gate of Sanchi's Great Stupa** standing in front of **Humboldt Forum museum in Berlin**.

The Great Stupa of Sanchi

- A stupa is a **Buddhist commemorative monument** usually containing sacred **relics of the Buddha** or other venerable saints.
 - The archetypal stupa is a **hemispherical structure**, whose origins can be traced to pre-Buddhist burial mounds found in India.
- The Great Stupa of Sanchi was built in the **third century BCE by Emperor Ashoka**.
- It is one of the oldest standing stone structures in India, believed to have been built over the **Buddha's relics**.
- The stupa is surrounded by a railing and four gateways, each adorned with intricate carvings and sculptures depicting stories from the life of Buddha. The Stupa is a **UNESCO World Heritage site**.

11. (a)

Context: Hindi Diwas is celebrated annually on September 14 to promote the language and its usage across the nation.

About Hindi

- It is an **Indo-Aryan language** and is one of the **two official languages** of the Government of India, along with English.
- Hindi is also one of the **22** scheduled languages of India.
- With over 600 million speakers, Hindi is the **3rd most spoken language** of the world.

- With approximately 1.5 billion speakers, English is the most spoken language globally. Following closely, Mandarin Chinese, which boasts around 1.1 billion speakers, is the second most spoken language globally.

12. (b)

Statement 1 is correct: The Irula Tribe is classified as a PVTG in Tamil Nadu.

Statement 2 is not correct: The Irula Tribe belongs to the Negrito race, not the Austro-Asiatic linguistic family.

Statement 3 is correct: They practice ancestor worship and are spread across Tamil Nadu, Karnataka, and Kerala.

Statement 4 is correct: The Irula language is written in the Tamil script.

13. (b)

Context: Every year on 17th of September, **Hyderabad Liberation Day** is celebrated to honour the martyrs of the **Hyderabad Liberation Movement**.

Background

- In 1947, when the British left India, they gave the princely states the choice to either join India or Pakistan or remain independent.
- While most princely states on the Indian side acceded, some decided to remain independent and one among them was Hyderabad in the south.

Hyderabad Liberation Day

- Hyderabad did not get independence for 13 months after the Independence of India on August 15, 1947, and was under Nizam's rule.
- The Razakars, a private militia of Mir Osman Ali Khan, called for Hyderabad to either join Pakistan or to become a Muslim dominion while resisting its merger with the Union of India.
- Therefore, **Operation Polo**, the military action, was launched by the Indian Army on September 13, 1948, **to integrate the princely state of Hyderabad.**

14. (b)**Context**

- Tribal populations in various states celebrated the harvest festival of Karma or Karam Parv on September 14-15.

Karma festival

- **Regions:** The festival is celebrated mainly in the states of Jharkhand, West Bengal, Bihar, Madhya Pradesh, Chhattisgarh, Assam, and Odisha.
 - The festival is popular especially among the **Munda, Ho, Oraon, Baiga, Kharia, and Santhal** peoples.
- **It is traditionally celebrated** on the Ekadashi tithi (eleventh day) of the lunar fortnight in the month of Bhado/ Bhadra, which corresponds to August-September in the Gregorian calendar.
- At the heart of the Karma festival is the **Karam tree**, the object from which the festival takes its name.
 - Traditionally it is seen as a symbol of **Karam Devta or Karamsani**, the god of strength, youth, and vitality.

15. (a)**Context**

Rationalist social reformer Periyar EV Ramasamy was remembered on the occasion of his **146th** birth anniversary.

About

- Periyar EV Ramasamy was born in **1879**.
- He was an **Indian social activist and politician** who started the **Self-Respect Movement** to redeem the identity and self-respect of Tamils.
 - He is known as the '**Father of the Dravidian movement**'.

Political Career

- Periyar started his political career as a **Congress worker** in his hometown Erode.
- However, over the question of separate dining for Brahmin and non-Brahmin students at Gurukulam, a Congress-sponsored school, Periyar **resigned from the party in 1925**.

16. (b)

Context: Recently, Mohammad Hidayatullah's death anniversary (September 18) was observed.

Mohammad Hidayatullah

- M. Hidayatullah passed away on September 18, 1992.
- He was India's 6th Vice President and the 11th Chief Justice of India (CJI).
- He has also served as the acting President of India. Interestingly, during this period he even hosted US President Richard Nixon.
- He is widely known as the only Indian to have served as the CJI, Vice President and Acting President of India.

17. (c)

Context: A controversy has emerged over the alleged use of substandard ingredients and animal fat in the preparation of the world renowned **Tirupati laddu**.

About

- In **2009**, the Tirupati laddu was granted the **Geographical Indication** tag.
- **Tirupati Temple**
- It is one of the **world's richest temples**, situated in the hill town of Tirumala in the state of **Andhra Pradesh**.
- The temple is dedicated to **Lord Sri Venkateswara**, an incarnation of Vishnu.
- It is constructed in **Dravidian architecture** and is believed to be constructed over a period of time starting from **300 AD**.

18. (d)

Statements 1 and 2 are not correct: Kalaripayattu is an Indian martial art and fighting style that originated in modern-day Kerala. Kalaripayattu is also mentioned in the Vadakkan Pattukal ballads written about the Chekavar from the Malabar region of Kerala.

- Its exact origin is uncertain, with estimates ranging from 200 BCE to 600 CE, and it peaked in popularity between the 14th and 16th centuries.
- Some myths credit its creation to Lord Parasurama, but historians dispute this claim.
- It used by early inhabitants for hunting, Kalaripayattu evolved into a sophisticated system of combat

19. (d)**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.

20. (c)

Koodiyattom is an ancient theater form originating from Kerala, India. It's known for its intricate storytelling, detailed costumes. Koodiyattom does not perform the full text of a Sanskrit play; instead, it focuses on individual acts from these plays, treating them as complete performances. While it does involve both male and female characters, it's not exclusively performed by male actors.

21. (b)

Context: Recently, Bhikaji Cama's birth anniversary was observed.

Bhikaji Cama

- She was born on September 24, 1861.
- She became the **first person** to hoist the Indian flag in foreign land on 22 August 1907. While unfurling the flag at the International Socialist Conference in **Stuttgart, Germany**, she appealed for equality and autonomy from the British which had taken over the Indian sub-continent.
- She has also penned revolutionary works such as '**Bande Mataram**' & '**Madan's Talwar**'.

22. (c)

In News: Rama Mankirdia from Odisha's Mayurbhanj district received habitat rights for the local forest under the Forest Rights Act (FRA), 2006.

All the statements are correct : Mankirdia is a semi-nomadic **Austro-Asiatic community**.

They are known for their traditional skills in rope making, monkey trapping, and food gathering.

They reside in temporary settlements in forests and speak a form of **Munda language**. The Mankirdia constitute a semi-nomadic section of the **Birhor tribe**.

23. (d)

Context: Dr. Satish Dhawan's birth anniversary was observed.

Dr. Satish Dhawan

- He was born on September 25, 1920.
- He is regarded as the father of **experimental fluid dynamics research** in India.
- His efforts led to operational systems like **INSAT**- a telecommunications satellite, **IRS** - the Indian Remote Sensing satellite and the Polar Satellite Launch Vehicle (**PSLV**) that placed India in the league of space faring nations.
- Following his death in 2002, the Indian satellite launch centre at Sriharikota, Andhra Pradesh, located about 100 km north of Chennai in South India was renamed as the **Prof. Satish Dhawan Space Centre**.

24. (a)

Ishwar Chandra Vidyasagar

- He was born on September 26, 1820.
- The title '**Vidyasagar**' (ocean of knowledge) was given to him due to his vast knowledge in almost all the subjects.
- He brought a revolution in the education system of Bengal.
 - In his book, "**Barno-Porichoy**" (Introduction to the letter), Vidyasagar refined the Bengali language and made it accessible to the common strata of the society.

- Tagore revered him as **‘the father of modern Bengali prose’**.

25. (c)

Jitiya or Jivitputrika Festival is a Hindu festival primarily observed in Bihar, Uttar Pradesh, Jharkhand, and Nepal. It is celebrated by mothers who fast for the well-being, long life, and prosperity of their children. The festival lasts for three days, and the first day is known as Nahaye-Khaye, where mothers prepare themselves for the upcoming fast by bathing and consuming simple food. The festival has its roots in Hindu mythology, particularly the story of King Jimutavahana, who sacrificed his life for the welfare of others.

26. (a)

Recently, Annie Besant’s death anniversary (20 September 1933) was observed.

Annie Besant

- She was born on 1 October, 1847 in London, United Kingdom.
- She launched the Home Rule League movement for Swaraj in 1916 with Lokmanya Tilak.
- She became the **first woman president** of the Indian National Congress in 1917.
- She published newspapers — **New India and Commonweal**, and also established the Central Hindu College in Banaras (Varanasi).

27. (c)

In News: Shaheed Bhagat Singh Jayanti is celebrated on 28 September every year.

- Born on 27th September 1907 in Lyallpur, Bhagat Singh was deeply influenced by his family’s patriotism, particularly his uncle Ajit Singh, and was inspired by the Ghadar Movement and Kartar Singh Sarabha’s execution. In March 1926, Bhagat Singh became the secretary of the Naujawan Bharat Sabha, a revolutionary organization. Bhagat Singh threw a bomb in the Central Legislative Assembly on 8th April 1929 to protest two oppressive Bills. This action, along with a poster explaining Saunders’ murder, led to Bhagat Singh’s arrest. Bhagat Singh is honored with the title “Shahid-e-Azam,” meaning the greatest of martyrs.

28. (c)

Context

- Around 46 people, including 37 children, drowned while taking holy dip in rivers and ponds in several districts of Bihar during the ‘Jivitputrika’ festival.

About

- **Jivitputrika Vrat (Jitiya Vrat)**, is a significant festival dedicated to the well-being and prosperity of children, observed primarily by mothers.
 - It involves women fasting and taking a **holy dip**.
- **Region:** It is celebrated in several states across India, including Bihar, Uttar Pradesh, and Jharkhand, as well as Nepal.

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.

29. (b)

The Poumai Naga tribe of Purul village in Senapati District, Manipur has prohibited hunting, trapping, and killing of wild animals and birds within their territory.

Statements 2 and 3 are correct: The Poumai Naga Tribe is primarily located in Manipur and Nagaland (not Arunachal Pradesh). They are known for their traditional pottery-making (Pouli) and salt production (Poutai). Their language is Poula.

30. (d)

Rann of Kutch

- The Rann of Kutch is a **vast salt marsh region** straddling the India-Pakistan border, primarily **located in Gujarat, India**, with a smaller portion extending into **Pakistan's Sindh province**. It started forming about **150-200 million years** ago.
- It is divided into **two parts**: the **Great Rann of Kutch to the north** and the **Little Rann of Kutch to the southeast**.
- **During monsoons**, the Little Rann turns into a shallow wetland. About 75 elevated pieces of land turn into islands, called **bets** by the local **Agariya and Maldhari communities**.



ECONOMY

1. Consider the following statements regarding the global and Indian gold industry:
1. In 2022, Switzerland, the United States, and the United Arab Emirates were the leading exporters of gold.
 2. Bihar has the largest resources of primary gold ore in India.
 3. India is the world's largest consumer of gold.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 1 and 2 only
(c) 2 and 3 only (d) 1, 2, and 3
2. It is currently India's largest trade partner within the Association of Southeast Asian Nations (ASEAN) and leading source of foreign direct investment.
- Which of the following countries has been described above?
- (a) Singapore (b) Malaysia
(c) Philippines (d) Indonesia
3. Consider the following statements with reference to the Intellectual Property Awards:
1. The award is given out by the Ministry of Finance.
 2. The main criteria of evaluation for these awards are Patent Applications, Grants and Commercialization.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
4. With reference to the Technical Textiles, consider the following statements:
1. They are manufactured using natural as well as man-made fibres.
 2. They have qualities like cost effectiveness, durability; high strength and light weight.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
5. Which among the following are Small Savings Instruments (SSIs)?
1. Public Provident Fund (PPF)
 2. Sukanya Samriddhi Scheme
 3. Kisan Vikas Patra (KVP)
- Choose 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

6. With reference to the Goods and Services Tax (GST) Council, which of the following statements is/are correct?
1. It is a constitutional body established under Article 279A of the Indian Constitution.
 2. The Union Finance Minister is the Chairperson of the 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
7. Which of the following statements is/are correct regarding the Primary Agricultural Credit Societies (PACS)?
1. A village can have only one Primary Agricultural Credit Society.
 2. They are connected to the core banking system (CBS).
 3. One of the most important functions of District Central Cooperative Banks is to provide funds to the Primary Agricultural Credit Societies.
- Choose the correct answer from options given below
- (a) 1 and 2 only (b) 3 only
(c) 1 and 3 only (d) 1, 2 and 3
8. With reference to the the Securities and Exchange Board of India (SEBI), consider the following statements:
1. It was established as a statutory body in 1988.
 2. It is the regulatory authority for the securities and capital markets 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
9. Which among the following defines the term Fiscal Deficit?
- (a) Excess of total budget expenditure (revenue and capital) over total budget receipts (revenue and capital) including borrowings during a fiscal year.
 - (b) Excess of revenue receipts over revenue expenditure.
 - (c) Excess of total budget expenditure (revenue and capital) over total budget receipts (revenue and capital) excluding borrowings during a fiscal year.
 - (d) Excess of capital expenditure over capital receipts.
10. Consider the following statements:
1. India is the 3rd largest fish producing country in the world.
 2. West Bengal is the largest fish producer in the country.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
11. With reference to Retail Inflation, consider the following statements:
1. It refers to the increase in prices of goods and services that consumers purchase, typically measured over a specific period.
 2. When retail inflation rises, it means that the cost of living is increasing, which can affect household budgets and purchasing power.

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 is **not** associated with dark patterns?

- (a) Misleading users with urgent but false deadlines.
(b) Hiding key information in a web of terms and conditions.
(c) Providing clear and accessible customer support options.
(d) Using confusing language to obscure true costs.

13. Consider the following statements:

1. Three Gorges Dam in China on Yangtze River is the largest hydro power station in the world.
2. The Bhakra Nangal Dam is the oldest hydroelectric power plant 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

14. Which of the following statements regarding Nidhi Companies is correct?

- (a) Nidhi companies are regulated under the Reserve Bank of India (RBI) Act.
(b) Nidhi companies primarily borrow and lend money among their members and are governed by Section 406 of the Companies Act, 2013.
(c) Nidhi companies can borrow money from the general public.
(d) A Nidhi company requires a minimum capital of ₹1 crore to be formed.

15. With reference to the Precision Farming, consider the following statements:

1. It is an approach to farm management that uses information technology to ensure that the crops and soil receive exactly what they need.
2. Hard precision agriculture uses all modern techniques such as GPS, remote sensing, and variable rate technology.

Which of the statements given above is/are correct?

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

16. With reference to the findings of the 'Relative Economic Performance of Indian States: 1960-61 to 2023-24' paper released by the Economic Advisory Council to the Prime Minister (EAC-PM), consider the following statements:

1. In 2023-24, Karnataka, Andhra Pradesh, Telangana, Kerala and Tamil Nadu together accounted for approximately 30 percent of India's GDP.
2. Both Gujarat and Maharashtra have had per capita incomes exceeding the national average since the 1960s.

Which of the statements given above is/are correct?

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

17. Which of the following statements regarding the Naga King Chili is/are correct?

1. The Naga King Chili was certified by Guinness World Records in 2006 as one of the world's hottest chillies.

2. It received the Geographical Indication (GI) tag in 2008 and is mainly cultivated in the southern states of India.

Select the correct answer using the code given below:

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

18. It is designed to tax the profits a company derives from an external, sometimes unprecedented event— for instance, the energy price-rise as a result of the Russia-Ukraine conflict.

Which of the following taxes has been described above?

- (a) Pigouvian tax (b) Corporate tax
(c) Perquisite tax (d) Windfall tax

19. With reference to Dairy Sector in India, consider the following statements:

1. India is the second largest producer of milk in the world.
2. Operation Flood led to a substantial increase in milk production across the country.

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 regarding the cooperative sector and White Revolution in India:

1. The White Revolution 2.0 aims to increase milk procurement to 1,000 lakh kilograms per day by 2029 with a focus on women's empowerment.
2. Under Margdarshika, the goal is to establish 5 lakh new Multi-Purpose Primary Agricultural Cooperative Societies (PACS), Dairy, and Fishery Cooperatives by 2029.

Which of the above statements is/are correct?

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

21. With reference to the Goods and Services Tax (GST) in India, consider the following statements:

1. The GST was introduced in 2017 by the 101st Constitutional Amendment Act, 2016 as a comprehensive indirect tax for the entire country.
2. The GST Council established under Article 279A, is chaired by the Prime Minister.
3. A cess is levied on the lowest tax slab of 5%.

How many of the statements given above are correct?

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

22. Consider the followings statements

1. Future and options in the share market are contracts which derive their price from an underlying asset.
2. In a future contract, the buyer has the obligation to buy the assets but in the option contract, customers have no obligation to buy the assets.

Which of the statements given above is/are correct?

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

23. Which among the following sectors are eligible for priority sector lending (PSL)?

1. Agriculture
2. Micro, Small, and Medium Enterprises (MSMEs)
3. Education
4. Renewable Energy

Select the correct answer using the code given below:

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

24. Consider the following statements:

1. The Central Silk Board is a statutory body established under the Ministry of Agriculture.
2. India is the second-largest silk producer in the world, contributing 42% of the global silk production in 2023.
3. Karnataka is the largest producer of silk in India.

Which of the above given statements is/are correct?

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

25. Consider the following statements:

1. China is the largest producer of rice in the world followed by Vietnam.
2. India is the world's largest exporter of rice.

Which of the statements given above is/are correct?

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

EXPLANATIONS

1. (b)

Statement 1 is correct: Switzerland, the United States, and the UAE were the leading exporters of gold in 2022.

Statement 2 is correct: Bihar has the largest resources of gold ore in India.

Statement 3 is not correct: India is the second-largest consumer of gold, not the largest; China is the largest consumer.

2. (a)

News: Recently, PM Narendra Modi held a meeting with his Singaporean counterpart Lawrence Wong.

Trade and economic cooperation

- Singapore is **India's largest trade partner** in ASEAN, and sixth-largest trade partner worldwide.
- Since 2018-19, **Singapore has been the largest source** of FDI (foreign direct investment) for India.
 - In 2017-18, India attracted the maximum FDI from Mauritius.

3. (b)

Context

- The Office of the Controller General of Patents, Designs, and Trademarks (CGPDTM) has invited the applications for the Intellectual Property Awards 2024.

About

- The award is given out by the Department for Promotion of Industry and Internal Trade, **Ministry of Commerce and Industry**, Government of India.
- The main criteria of evaluation for these awards are **Patent Applications, Grants and Commercialization**.
- The annual award **recognises** achievers, including individuals, institutions, organisations and enterprises for their **Intellectual Property (IP)** creations and commercialisation that contribute to strengthen the country's IP ecosystem and encourage creativity and innovation.

4. (c)

Both the statements are correct: Technical textiles are defined as textile materials and products used primarily for their **technical performance and functional properties** rather than their aesthetic or decorative characteristics.

- They are manufactured using **natural as well as man-made fibres that** exhibit **enhanced functional properties** such as higher tenacity, excellent insulation, improved thermal resistance etc.
- **Significance:** Technical textiles have cost effectiveness; durability; high strength; light weight; versatility; customization; user friendliness; eco friendliness; logistical convenience etc.

5. (d)**About Small Savings Instruments (SSIs)**

- They are a set of **savings instruments** managed by the **central government** with an aim to **encourage citizens** to save **regularly irrespective of their age**.
- It comprises instruments, **including the National Saving Certificate (NSC), Public Provident Fund (PPF), Kisan Vikas Patra (KVP) and Sukanya Samridhi Scheme**.
- The money raised from people who save through these schemes goes to the Centre and is put into a fund called the **National Small Savings Fund (NSSF)**.
- **The government resets the interest rate at the beginning of every quarter.**

6. (c)**Goods and Services Tax (GST) Council**

- The Goods and Services Tax (GST) Council is a **constitutional body established under Article 279A** of the Indian Constitution through the **101st Amendment Act of 2016**.
- **The Union Finance Minister** is the Chairperson of the GST Council.
- The GST Council makes recommendations to the Union and the States on key GST-related issues, including:
 - Taxes, cesses, and surcharges to be subsumed under GST
 - Goods and services to be subject to or exempt from GST
 - Model GST laws, principles of levy, and apportionment of IGST
 - Tax rates, thresholds, special provisions, and any other matter relating to GST.

7. (b)

Statement 1 is not correct: Primary Agricultural Credit Societies (PACS) are **village level cooperative credit societies that serve as the last link in a three-tier cooperative credit structure**. A village can have multiple Primary Agricultural Credit Societies (PACS).

Statement 2 not correct: While State Cooperative Banks (SCBs) and District Central Cooperative Banks (DCCBs) are connected to the Core Banking Software (CBS), PACS are not.

Statement 3 is correct: One of the most important functions of District Central Cooperative Banks is to provide funds to the Primary Agricultural Credit Societies. Credit from the SCBs is transferred to the district central cooperative banks, or DCCBs, that operate at the district level.

The DCCBs work with PACS, which deal directly with farmers. PACS are involved in short term lending — or what is known as **crop loan**.

8. (b)

Statement 1 is not correct: It was established in **1988** and given statutory powers through the SEBI Act of **1992**.

Statement 2 is correct: It is the **regulatory authority** for the securities and capital markets in India.

- SEBI's primary goal is to protect the interests of investors, promote and regulate the securities market, and ensure its orderly functioning.

9. (c)

Context

- In the 2024-25 Union Budget, the Finance Minister stated, "From 2026-27 onwards, we aim to reduce the fiscal deficit each year to ensure Union government debt declines as a percentage of GDP."
- The speech also says that the **Centre's fiscal deficit** would be reduced to **4.5% of GDP in 2025-26** from its budgeted level of 4.9% in 2024-25.

What is the fiscal deficit?

- Fiscal Deficit is defined as excess of total budget expenditure (revenue and capital) over total budget receipts (revenue and capital) excluding borrowings during a fiscal year.
- Fiscal Deficit = Total Expenditure – (Revenue Receipts + Non-Debt Creating Capital Receipts).

10. (a)

Statement 1 is correct: India is the **3rd largest fish producing and 2nd largest aquaculture** producing nation in the world.

- India is the **4th largest exporter** of fish and fisheries products with a growth in exports of **26.73%** in terms of quantity between FY 2021-22 and FY 2022-23.

Statement 2 is not correct: **Andhra Pradesh** is the largest fish producer in the country followed by West Bengal and Gujarat.

11. (c)

Both the statements are correct: Retail inflation refers to the **increase in prices of goods and services** that consumers purchase, typically measured over a specific period.

- It's often gauged using the **Consumer Price Index (CPI)**, which tracks changes in the cost of a basket of consumer goods and services over time.
- **When retail inflation rises**, it means that the cost of living is increasing, which can affect household budgets and purchasing power.
- **Conversely, low or negative retail inflation** can indicate slower economic activity or declining prices.
- To measure inflation, we estimate how much CPI has increased in terms of **percentage change over the same period the previous year**.

12. (c)

What are dark patterns?

- **Dark patterns are deceptive tactics** used by online platforms to mislead customers and prevent them from making right choices.

- By exploiting human psychology and clever design, dark patterns benefit companies at the expense of consumers.
- **Common dark patterns include** creating a false sense of urgency to rush users into making purchases, hiding subscription cancellations deep within websites, and using confusing language to mislead users.
- **The tactics are unethical** and undermine the integrity of the design process. The practices fall under 'unfair trade practices' category under Consumer Protection Act, 2019.

13. (a)

Statement 1 is correct: Three Gorges Dam in China on Yangtze River is the largest hydro power station in the world.

Statement 2 is not correct: In India, the oldest hydroelectric power plant is Sidrapong, located in West Bengal.

- Its installed capacity is 130KW and was commissioned in the year **1897**.

14. (b)

Nidhi companies are governed by Section 406 of the Companies Act, 2013, and engage in borrowing and lending money among their members. They are not regulated by the RBI and require a minimum capital of ₹10 lakh, not ₹1 crore.

15. (c)

Both the statements are correct: Precision farming (PF) is an approach to farm management that uses information technology to ensure that the crops and soil receive exactly what they need for optimum health and productivity.

- Rather than applying similar inputs across the entire field, the approach aims to **manage and distribute them on a site specific basis** to maximize long-term cost benefit as well as prevent any waste.
- Over the last few decades, many technologies have been developed for PF; they can be divided into 'soft' and 'hard.'
 - **Soft precision agriculture** depends on visual observation of crops and soil management decisions based on experience and intuition, rather than statistical and scientific analysis.
 - **Hard precision agriculture uses all modern techniques** such as GPS, remote sensing, and variable rate technology.

16. (c)

Both the statements are correct: Relative Economic Performance of Indian States: 1960-61 to 2023-24 examines the relative economic performance of states **over the past six and a half decades** using two indicators- **Share in India's GDP and Relative per capita income**.

- In 2023-24, Karnataka, Andhra Pradesh, Telangana, Kerala and Tamil Nadu together accounted for approximately **30 percent of India's GDP. Hence, Statement 1 is correct.**
- In addition, the per capita income of all southern states became **higher than the national average after 1991.**
- **Maharashtra** has maintained the highest share of India's GDP for almost all of the period.
 - **Gujarat's share** began to increase rapidly- from 6.4 percent in 2000-01 to 8.1 percent in 2022-23.
 - **Both Gujarat and Maharashtra have had per capita incomes exceeding the national average since the 1960s. Hence, Statement 2 is correct.**

17. (a)

Statement 1 is correct: The Naga King Chili was indeed certified by Guinness World Records in 2006 for its extreme heat, surpassing 1 million Scoville Heat Units.

Statement 2 is not correct: The chili received the GI tag in 2008. It is primarily cultivated in the northeastern states of India, such as Nagaland, Assam, and Manipur, not in the southern states.

18. (d)

Context: Recently, the Union government has slashed windfall tax on domestically produced crude oil to 'nil' per tonne.

What is a windfall tax?

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

19. (b)

Statement 1 is not correct: India is the largest producer of milk in the world, contributing **24% of global milk production in 2021-22.**

- The top 5 milk-producing states are: Rajasthan, Uttar Pradesh, Madhya Pradesh, Gujarat and Andhra Pradesh. They together contribute **53.11%** of total Milk production in the country.

Statement 2 is correct: The White Revolution in India, also known as **Operation Flood**, was a significant dairy development program implemented to enhance milk production and address the country's milk scarcity issues.

- It was launched in **1970** by the **National Dairy Development Board (NDDB)** under the leadership of **Dr. Verghese Kurien**, often referred to as the **"Father of the White Revolution."**

20. (a)

Statement 1 is correct: White Revolution 2.0 aims to increase milk procurement to 1,000 lakh kg/day by 2029 with a focus on women's empowerment.

Statement 2 is not correct: The Margdarshika initiative aims to establish 2 lakh new PACS, Dairy, and Fishery Cooperatives, not 5 lakh.

21. (a)

Statement 1 is correct: The GST was introduced in **2017** by the **101st Constitutional Amendment Act, 2016** as a comprehensive indirect tax for the entire country.

- It is a destination based tax on **consumption of goods and services.**

Statement 2 and 3 are not correct: The **GST Council** is a constitutional body under **Article 279A.**

- It is a federal body comprising the **Union Finance Minister as its Chairman** and Finance Ministers of all States as members.
- The GST Council members take almost all decisions on GST with consensus.
- **Four slabs for taxes for both goods and services:** 5%, 12%, 18%, and 28%.
 - Different tax slabs were introduced because daily necessities could not be subject to the same rate as luxury items.
 - **A cess** is levied on the **highest tax slab of 28% on luxury, sin and demerit goods.**

22. (c)

In News: SEBI highlighted the high percentage of individual F&O traders incurring losses underscores the risks associated with trading in derivatives.

- Futures and Options are derivative contracts whose value is based on their underlying assets.
- **Futures** are agreements to buy or sell at a predetermined price and date, while options grant the right but not the obligation to buy or sell within a specified timeframe.
- **Types** of futures include commodity, currency, interest rate, and stock futures.
 - Calls and puts are the two types of options.
- F&O trading aids in risk management and facilitates leveraged trading for potential higher returns. Moreover, F&O markets are pretty transparent and liquid.

23. (d)

What is Priority sector lending?

- Priority Sector Lending (PSL) is a Reserve Bank of India (RBI) initiative that **requires banks to lend a certain percentage of their funds** to sectors that may not otherwise receive enough credit.
- **The RBI periodically updates** the sectors that are eligible for PSL, as well as the loan limits.
 - **The sectors that are eligible for PSL include:** Agriculture, Micro, Small, and Medium Enterprises (MSMEs), Export Credit, Education, Housing, Social Infrastructure, Renewable Energy.

24. (c)

The **Central Silk Board (CSB)** is a **statutory body** established in 1948 under an Act of Parliament.

- It operates **under the Ministry of Textiles** and plays a crucial role in the development of India's silk industry.
- The CSB advises the Government of India on all matters concerning **sericulture (silk farming) and the silk industry**.
- **Headquarters:** Bengaluru, Karnataka

Silk Production in India

- India is the **second-largest** silk producer in the world, contributing 42% of the global silk production in 2023.
- **India is the only country** in the world that produces all four major varieties of silk – **Mulberry, Eri, Tassar, and Muga**.
- **Karnataka** is the largest producer of silk in India.

25. (b)

Statement 1 is not correct: **China** is the largest producer of rice in the world, followed by **India, Bangladesh and Indonesia**.

- India, along with China, accounts for **over half of the world's rice production**.

Statement 2 is correct: **India is the world's largest exporter** of rice, accounting for **33 percent** of the world's total rice exports during 2023.



INDIAN POLITY & CONSTITUTION

- 1.** Which among the following are the key functions performed by the Supreme court of India?
 1. Judicial Review
 2. Constitutional Interpretation
 3. Advisory Jurisdiction
 4. Original JurisdictionSelect the correct answer using the code given below:

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

- 2.** With reference to the Law Commission of India, which of the following statements is/are correct?
 1. The first Law Commission was established during colonial rule by the East India Company under the Charter Act of 1833.
 2. The first law commission in independent India was established in 1950.Select the correct answer using the code given below:

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

- 3.** With reference to the Law Commission of India, which of the following statements is/are correct?
 1. It is a constitutional body under Article 280 of the Constitution of India.
 2. The recommendations of the Commission are binding on the Government.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 Public Accounts Committee, which of the following statements is/are correct?
 1. The committee was set up first in 1937 under the provisions of the Government of India Act of 1935.
 2. The function of the committee is to examine the annual audit reports of the Comptroller and Auditor General of India (CAG).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.** Consider the following statements regarding collegium system:
 1. The provisions related to the collegium system are mentioned in Article 217 of the Indian Constitution.

2. The Supreme Court collegium is headed by the Chief Justice of India.
3. Government can not seek clarification on the collegium's choice of selected judge.

Which of the statements given above is/are correct?

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

6. In which of the following Indian states, the Inner Line Permit (ILP) regime is **not** applicable?
- | | |
|-----------------------|--------------|
| (a) Arunachal Pradesh | (b) Manipur |
| (c) Tripura | (d) Nagaland |
7. Under which Article of the Indian Constitution did the Supreme Court recognize the right to die with dignity?
- | | |
|----------------|----------------|
| (a) Article 14 | (b) Article 19 |
| (c) Article 21 | (d) Article 32 |

8. With reference to the 'Central Bureau of Investigation (CBI)', consider the following statements:

1. It was established by the Special Police Establishment (SPE) of 1946.
2. It is the nodal police agency in India that coordinates investigations on behalf of Interpol member countries.
3. CBI can *suo-moto* take up investigation of offences only in the Union Territories.

How many of the statements given above are correct?

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

9. The members of Lokpal are appointed by the recommendation of a selection committee. Which among the following are part of the committee?

1. Prime Minister of India
2. Leader of Opposition in Lok Sabha
3. Chief Justice of India
4. Speaker of Lok Sabha

Select the correct answer using the code given below:

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

10. Which of the following statements about Contempt of Court in India is/are correct?

1. Civil contempt refers to the willful disobedience of a court order or breach of an undertaking given to a court.
2. Criminal contempt includes any act that scandalizes the court or lowers its authority.
3. The punishment for contempt of court can only include imprisonment and cannot involve a fine.

Select the correct answer using the code given below:

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

11. Which among the following constitutional provisions provide safeguards to Scheduled Castes and Tribes in India?

1. Article 17
2. Article 338
3. Article 46

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

12. Which among the following has become the latest state to withdraw general consent to the Central Bureau of Investigation (CBI)?

- (a) Tamil Nadu (b) Karnataka
(c) West Bengal (d) Meghalaya

EXPLANATIONS

1. (d)

Key Functions of the Supreme Court of India:

- **Judicial Review:** It reviews the constitutionality of laws and executive actions. If a law or action is found to violate the Constitution, the Court can strike it down.
- **Original Jurisdiction:** It has the authority to hear certain types of cases directly, including disputes between states or between the central government and states. This is called original jurisdiction.
- **Appellate Jurisdiction:** It hears appeals from lower courts and tribunals. This includes civil, criminal, and constitutional matters.
 - The Supreme Court can overturn or modify decisions made by lower courts.
- **Constitutional Interpretation:** It interprets the provisions of the Constitution.
 - This function is crucial for clarifying the meaning and application of constitutional principles.
- **Protection of Fundamental Rights:** It ensures the protection of fundamental rights guaranteed by the Constitution.
- **Advisory Jurisdiction:** The President of India can seek the Court's opinion on legal or constitutional questions.
 - While the Court's advice is not binding, it is highly influential.
- **Judicial Administration:** It oversees the functioning of lower courts and provides guidelines for their operation. It also plays a role in the appointment and transfer of judges.
- **Public Interest Litigation (PIL):** The Court entertains PILs, allowing individuals or groups to seek judicial redress for issues affecting the public at large.

2. (b)

Context

- President Droupadi Murmu has sanctioned the constitution of the 23rd Law Commission of India, which will serve from September 1, 2024, to August 31, 2027.

Origin of Law Commission of India

- **Pre- independence:** The first Law Commission was established during colonial rule in India by the East India Company under the **Charter Act of 1833** and was presided over by **Lord Macaulay**.
 - After that, **three more commissions** were established in pre-independent India.
- **Post-independence:** The first law commission in independent India was established in **1955**, with its chairman **M.C.Setalvad**.

3. (d)

Law Commission of India

- Law Commission of India is a **non-statutory body**.

- **It is constituted by** a notification of the Government of India, Ministry of Law & Justice, Department of Legal Affairs.
- It is constituted with definite terms of reference to carry out research in the field of law.
- The Commission makes **recommendations to the Government** in the form of Reports as per its terms of reference.
 - However these **recommendations are not binding** on the Government.

4. (b)

Context

- The Public Accounts Committee (PAC) will hold a performance review of “regulatory bodies established by Act of Parliament”, such as the Securities and Exchange Board of India (SEBI).

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. The reports are;
 - Audit report on appropriation accounts,
 - Audit report on finance accounts and
 - Audit report on public undertakings.
- In addition, the Committee can also select one or more suo motu subjects for in-depth examination during the year.

5. (b)

Collegium System

- It is the system of appointment and transfer of judges that has evolved through **judgments of the Supreme Court**, and not by an Act of Parliament or by a provision of the Constitution. **Hence statement 1 is incorrect.**
- The Supreme Court collegium is **headed by the Chief Justice of India** and comprises **four other senior-most judges** of the court. **Hence statement 2 is correct.**
- A **High Court collegium** is led by **its Chief Justice and four other senior-most judges** of that court.
- Names recommended for appointment by a High Court collegium reaches the government only after approval by the CJI and the Supreme Court collegium.
- Judges of the higher judiciary are appointed only through the collegium system, and the government has a role only after names have been decided by the collegium.

Role of Government in Judicial Appointment

- The government’s role is limited.
- However, it can raise objections and seek clarifications regarding the collegium’s choices. **Hence statement 3 is not correct.**

- But if the collegium reiterates the same names, the government is bound, under Constitution Bench judgments, to appoint them as judges.

6. (c)

Context: Nagaland to implement inner line permit in three more districts.

Inner Line Permit (ILP)

- It is an official travel document issued by the Government of India to allow inward travel of an Indian citizen into a protected area for a limited period.
- It is obligatory for Indian citizens from outside those states to obtain a permit for entering into the protected state.
- The states which require the ILP are: **Manipur, Arunachal Pradesh, Nagaland** and Mizoram.

7. (c)

Context

- The debate around the ethics and law that defines passive euthanasia was reignited after the Supreme Court dismissed the plea in Harish Rana's case, who has been in a permanent vegetative state since 2013.

Status of Euthanasia in India

- In **2011**, the Supreme Court for the first time recognised the legality of passive euthanasia in the case of **Aruna Ramchandra Shanbaug v Union of India**.
- In **2018**, the Supreme Court recognised the legality of 'passive euthanasia' for terminally-ill patients, holding that the '**right to die with dignity**' forms a part of the right to life under **Article 21** of the Constitution of India.

8. (b)

In News: Recently, the Supreme Court of India has invoked the expression 'Caged Parrot' for the Central Bureau of Investigation (CBI) in a case over the alleged liquor policy 'scam' in Delhi.

Statement 1 is not correct

- **The Central Bureau of Investigation (CBI)** traces its roots back to the **Special Police Establishment (SPE)**, established in 1941 during World War II to investigate bribery and corruption cases.
- It was formally established on the recommendations of the **Santhanam Committee** and **set up by a resolution of the Ministry of Home Affairs in 1963**.

Statement 2 is correct

- CBI functions under the **Ministry of Personnel, Public Grievances and Pensions** of the central government, and is **exempted from the purview of the Right to Information (RTI) Act**.
- It is also the **nodal police agency** in India that coordinates investigations on behalf of **Interpol member countries**.

Statement 3 is correct

- **Section 6 of the DPSE Act** authorises the central government to direct CBI to probe a case within the jurisdiction of any state on the recommendation of the concerned state government.
- The courts can also order a CBI probe, and even monitor the progress of investigation.
- CBI can suo-moto take up investigation of offences **only in the Union Territories**.

9. (d)

Structure of Lokpal

- The institution of Lokpal is a **statutory body** established by the **Lokpal Act 2013**.

- **Members:** Lokpal is a multi member body, made up of **one chairperson and maximum of 8 members**.
 - **Half members will be judicial members** and should be either a former Judge of the Supreme Court or a former Chief Justice of a High Court.
 - The non-judicial member should be an eminent person with impeccable integrity and outstanding ability.
 - Minimum fifty per cent of the Members will be from SC / ST / OBC / Minorities and women.
- **Selection committee:** The members are appointed by the president on the recommendation of a selection committee, composed of:
 - The Prime Minister who is the Chairperson;
 - Speaker of Lok Sabha,
 - Leader of Opposition in Lok Sabha,
 - Chief Justice of India or a Judge nominated by him / her, and One eminent jurist.

10. (b)

Statement 1 is correct: Civil contempt involves willful disobedience of a court order or a breach of an undertaking to the court.

Statement 2 is correct: Criminal contempt refers to any act that scandalizes the court, prejudices judicial proceedings, or interferes with the administration of justice.

Statement 3 is not correct: The punishment for contempt of court can include both imprisonment and/or a fine, as specified under the Contempt of Courts Act, 1971.

11. (d)

Article 15: Prohibits discrimination on grounds of religion, race, caste, sex, or place of birth.

- **Article 17:** Abolishes “**untouchability**” and forbids its practice in any form.
- **Article 46:** Promotes the educational and economic interests of SCs and STs and protects them from social injustice.
- **Article 338:** Establishes the National Commission for Scheduled Castes to investigate and monitor the implementation of safeguards for SCs.
- **Article 339:** Empowers the President to intervene in the administration of Scheduled Areas and Scheduled Tribes for their welfare.

12. (b)

Context

- The Karnataka government has withdrawn general consent for the Central Bureau of Investigation (CBI) to investigate cases in the state, citing misuse of power and lack of communication.

About

- With this, Karnataka has joined the list of states (**such as Punjab, West Bengal, Tamil Nadu and Meghalaya**) in withdrawing general consent for the CBI in recent years.

What is general consent to the CBI?

- The CBI is governed by the **Delhi Special Police Establishment (DSPE) Act, 1946**, which **mandates that the agency** must obtain the consent of the state government concerned before beginning to investigate a crime in a state.
- Further, the state government’s consent can be either **case-specific or general**.
- Giving general consent would lead to the seamless investigation of corruption cases against central government employees in their states. This is consent by default, in the absence of which the CBI would have to apply to the state government in every case, and before taking even small actions.

GEOGRAPHY

1. Consider the following countries:

- | | |
|-----------------|-------------|
| 1. Nigeria | 2. Kenya |
| 3. Angola | 4. Botswana |
| 5. South Africa | |

Which of the following countries shares borders with Namibia?

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

2. With reference to the Cyclones, consider the following statements:

1. They are known as typhoons in Australia.
2. Cyclones in the North Indian Ocean region are named by the regional specialized meteorological centers (RSMCs).

Which of the statements given above is/are correct?

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

3. Which of the following factors is essential for the formation of tropical cyclones?

1. High sea surface temperature (SST) above 26°C
2. Presence of a Coriolis force
3. High atmospheric pressure at the surface
4. Strong vertical wind shear

Select the correct answer using the code below:

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

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

1. The cocoa tree is an evergreen tree in the family Malvaceae.
2. It grows about 20 degrees north and south of the equator in regions with warm weather and abundant rain.

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

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

Select the correct answer using the code given below:

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

6. Consider the following statements:

1. Length of a terrestrial mile is lesser than that of a nautical mile.
2. Harmattan is a dusty land- wind of the East African Coast.
3. Greece and Albania form a part of the Iberian Peninsula.

Which of the statements given above is/are correct?

- (a) 1 only (b) 2 and 3 only
(c) 3 only (d) All of the above

7. Consider the following countries:

1. Jordan
2. Israel
3. Iraq
4. United Arab Emirates

Which of the following countries shares borders with Saudi Arabia?

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

8. Which of the following islands in the Andaman and Nicobar Islands group are volcanic in nature?

- (a) Havelock Island and Neil Island (b) Long Island and Middle Andaman
(c) Long Island and Neil Island (d) Barren Island and Narcondam Island

9. With reference to the La Nina, consider the following statements:

1. During La Nina, the trade winds become stronger than usual, pushing more warmer waters towards the Indonesian coast.
2. Regions such as Southeast Asia, northern Australia, and parts of South America often experience below-average rainfall during La Niña events.

Which of the statements given above is/are correct?

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

10. With reference to the cyclones in the North Indian Ocean, which of the following statements is/are correct?

1. The Arabian Sea generally experiences more cyclones than the Bay of Bengal.
2. The western Arabian Sea is typically favorable for cyclone formation due to cooler sea temperatures and moisture from the Arabian Peninsula.

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. The Ring of Fire is a prominent geological feature associated with:

- (a) Divergent plate boundaries and mid-ocean ridges.
(b) Convergent plate boundaries and subduction zones.
(c) Transform plate boundaries and earthquake faults.
(d) Continental collisions and mountain ranges.

- 12.** Consider the following statements regarding the Paraguay River:
1. The Paraguay River is a major tributary of the Paraná River and flows through Brazil, Paraguay, and Argentina.
 2. The Pantanal, one of the largest tropical wetlands in the world, is located in the upper basin of the Paraguay River.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 13.** Which one of the following is not located in the South China Sea?
- (a) Canary Islands (b) Paracel Islands
(c) Spratly Islands (d) Pratas Islands
- 14.** Which among the following Indian states will be the endpoint of the TAPI gas pipeline?
- (a) Punjab (b) Rajasthan
(c) Gujarat (d) Haryana
- 15.** Consider the following statements:
1. Jute crop requires a humid climate with temperature fluctuating between 24 degree Celsius and 38 degree Celsius.
 2. Minimum rainfall required for jute cultivation is 1000 mm.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 16.** Consider the following statements with reference to Polar Vortex.
1. It is a persistent area of low pressure and cold air surrounding Earth's poles.
 2. It strengthens in winter and weakens in summer.
 3. It leads to cold outbreaks in the U.S., Europe, and Asia.
- How many of the above statements are correct?
- (a) Only one (b) Only two
(c) All three (d) None
- 17.** Which among the following states of India share a border with Myanmar?
1. Arunachal Pradesh
 2. Nagaland
 3. Manipur
 4. Mizoram
- Select the correct answer using the code given below:
- (a) 1, 2 and 3 only (b) 1 and 3 only
(c) 2, 3 and 4 only (d) 1, 2, 3 and 4
- 18.** Which of the following statements regarding the Amazon River is/are correct?
1. The Amazon River is the largest river system in the world in terms of the volume of water flow.
 2. It originates in the highlands of Brazil.
- 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 one of the following is not a part of the Congo Basin?
- (a) Gabon (b) Nigeria
(c) Republic of the Congo (d) Equatorial Guinea
20. With reference to the Heat Dome Effect, consider the following statements:
1. It is a type of low pressure system that forms over a large area in the atmosphere.
 2. Heat domes can cause dangerous heat waves causing the temperatures to shoot up.
- 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. Tuvalu, an island country, recently seen in the news is situated in which of the following Ocean?
- (a) West-Central Pacific Ocean (b) South-Western Indian Ocean
(c) North-West Atlantic Ocean (d) Western Arctic Ocean
22. Consider the following countries:
1. Kazakhstan
 2. Turkmenistan
 3. Pakistan
 4. Tajikistan
 5. Kyrgyzstan
- Which of the following countries shares borders with Uzbekistan?
- (a) 1, 2, 4 and 5 only (b) 1, 2 and 4 only
(c) 2, 4 and 5 only (d) 1, 2, 3, 4 and 5
23. With reference to the Rann of Kutch, consider the following statements:
1. The Rann of Kutch is divided into the Great Rann and Little Rann, with the Great Rann located in the southeast.
 2. It spans the border between India and Pakistan, located mostly in Gujarat with a small portion extending into Pakistan's Sindh province.
 3. The Little Rann of Kutch is home to the Indian wild ass (khur) and is part of the Wild Ass Wildlife Sanctuary, the largest wildlife sanctuary in India.
- Which of the above statements is/are correct?
- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2, and 3

EXPLANATIONS

1. (d)

In News: Namibia is experiencing its worst drought in a century, exacerbated by El Niño.

About

- The Republic of Namibia is situated on the southwestern coast of Africa and borders **Angola** and Zambia in the north, the Republic of **South Africa** in the south and **Botswana** in the east.



2. (b)

Statement 1 is not correct: Cyclones are caused by atmospheric disturbances around a low-pressure area distinguished by swift and often destructive air circulation.

- They are known as **typhoons** in the China Sea and Pacific Ocean; **hurricanes** in the West Indian islands in the Caribbean Sea and Atlantic Ocean; **tornados** in the Guinea lands of West Africa and southern USA.; **willy-willies** in north-western Australia and **tropical cyclones** in the Indian Ocean.

Statement 2 is correct: The names are maintained and updated by an **international committee of the World Meteorological Organization**.

- Cyclones in the North Indian Ocean region are named by the **regional specialized meteorological centers (RSMCs)** in India, Bangladesh, Myanmar, Oman, Pakistan, and Sri Lanka.
 - Each country contributes names to a list used on a **rotating basis**.

3. (a)

Warm ocean waters provide the energy for cyclones through evaporation, making this a necessary condition for cyclone formation. The Coriolis effect helps in the rotation of the cyclone. Without this force, the cyclone cannot form.

High atmospheric pressure: This is not correct. Cyclones are associated with low pressure systems, not high pressure.

Strong vertical wind shear: This is also not correct. Weak vertical wind shear is required for cyclones to form and grow. Strong wind shear disrupts the cyclone's structure.

4. (c)

Context

- California Cultured, a plant cell culture company, is growing cocoa from cell cultures at a lab facility in California.

About

- The cocoa tree is an **evergreen tree** in the family Malvaceae.
- **The fruit**, called a **cacao pod**, is ovoid, ripening yellow to orange, and contains 20 to 60 seeds.
- Cocoa beans are used to make **chocolate liquor, cocoa solids, cocoa butter and chocolate**.

Growing Conditions

- It grows about **20 degrees north and south of the equator** in regions with warm weather and abundant rain, including **West Africa and South America**.
- Cocoa requires **deep and well drained soils**. Majority of area under Cocoa cultivation is on clay loam and sandy loam soil.
- It requires a **temperature** between **15°-35°C** with optimum of 25°C.

5. (c)

Andaman and Nicobar Islands

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

The Andaman Islands

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

6. (a)

Statement 1 is correct and Statement 2 is not correct: One terrestrial mile (1609 metres) is less than one nautical mile (1852 meters). The Harmattan is a season in the West African subcontinent, which occurs at the end of the November and middle of the March. It is characterised by the dry and dusty northeasterly trade wind which blows from the Sahara Desert over West Africa into the Gulf of Guinea.

Statement 3 is not correct: The Iberian peninsula includes Portugal, Spain, Andorra and Gibraltar.

7. (a)

In News: India and Saudi Arabia conducted the sixth edition of Joint Committee on Defence Cooperation (JCDC) meeting in Riyadh, Saudi Arabia.

About: Saudi Arabia

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



8. (d)

Andaman and Nicobar Islands

- This archipelago is composed of more than 500 big and small islands, which are divided into two distinct groups of islands;
 - **The Andaman Islands:** These islands are divided into three major sub-groups – North Andaman, Middle Andaman, and South Andaman.
 - **The Nicobar Islands:** These islands are divided into three major sub-groups – Northern Group, Central Group, and Southern Group.

Other Features

- **The Barren and Narcondam islands** are volcanic islands.
- **Saddle Peak (737 m)** in North Andaman is the highest peak in the Andaman and Nicobar Islands.
- India's southernmost point '**Indira Point**' is located at the southern tip of the Great Nicobar.

9. (a)

Statement 1 is correct: La Niña is a weather phenomenon that occurs in the **Pacific Ocean**. It is the counterpart of El Niño, and both are part of the **larger El Niño-Southern Oscillation (ENSO) cycle**.

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

Statement 2 is not correct: Increased rainfall: Regions such as Southeast Asia, northern Australia, and parts of South America often experience **above-average rainfall** during La Niña events.

10. (d)

Context

- A rare August cyclone, named '**Asna**', in the Arabian Sea after crossing Gujarat's shore has left meteorologists baffled.

Background

- Historically, the North Indian Ocean, which includes both the Bay of Bengal and the Arabian Sea, experiences about five tropical cyclones annually.
- **The Bay of Bengal typically sees four times as many cyclones as the Arabian Sea**, with most occurring in May and November.
- The western Arabian Sea is usually inhospitable to cyclone formation due to **cooler sea temperatures** and **dry air** from the Arabian Peninsula.
- These conditions contrast sharply with the more cyclone-friendly environments of the Bay of Bengal.

11. (b)

The Ring of Fire is a horseshoe-shaped belt around the Pacific Ocean characterized by frequent volcanic eruptions and earthquakes. These phenomena occur due to convergent plate boundaries, where oceanic plates subduct (sink) beneath continental plates.

12. (c)

South America's Paraguay River, a vital route for transporting grains, has reached a record low water level.

About Paraguay River

- The Paraguay River is the fifth largest river in South America and the main tributary of the Paraná River.
- It originates near Diamantino in the Brazilian state of Mato Grosso and flows north to south, passing through Brazil, Paraguay, and Argentina.
- One of the river's key features is the Pantanal, a vast seasonal swamp in its upper basin, which is one of the largest tropical wetlands in the world.
- The Paraguay River plays a critical role in transportation, agriculture, and sustaining ecosystems across its basin.

13. (a)

Context: Vietnam and the Philippines are both at odds with China over its sweeping territorial claims and growing military presence in the South China Sea (SCS).

South China Sea issue

- **"Four Sha" (Four Sands archipelagos)** are the four island groups in the SCS region over which China claims it has "historical rights", named **Dongsha Qundao, Xisha Qundao, Zhongsha Qundao and Nansha Qundao**.

- Internationally they are known as **Pratas Islands, Paracel Islands**, the Macclesfield Bank area and **the Spratly Islands**.
- China stakes claim to 90% of the South China Sea, and this claim is based on the **U-shaped nine-dash line** etched on the map in the **1940s by a Chinese geographer**.

14. (a)

Context

- The Afghanistan government said that work would begin on a **\$10 billion TAPI** gas pipeline traversing South Asia.

About

- **The Turkmenistan-Afghanistan-Pakistan-India (TAPI)** natural gas pipeline project is a significant regional energy initiative.
- It aims to transport around **33 billion cubic meters (bcm) of natural gas** annually from the **Galkynysh gas field in Turkmenistan**, through a pipeline spanning approximately 1,800 kilometers.
- The route includes passing through key regions **like Herat and Kandahar in Afghanistan**, and **Balochistan in Pakistan**, before terminating in **Fazilka, Punjab**, in India.

15. (c)

Context:

- Due to floods, Jute production is expected to drop by 20% this financial year.

What type of Climate and Soil are required to grow Jute?

- Jute crop requires a **humid climate** with temperature fluctuating between **24 degree Celsius and 38 degree Celsius**.
- **Minimum** rainfall required for jute cultivation is **1000 mm**.
- New grey alluvial soil of good depth receiving silt from annual floods is most suitable for jute growth. However, jute is grown widely in sandy looms and clay loams.

16. (c)

Antarctic ozone hole formation begins late due to the weak polar vortex.

All the statements are correct

- The polar vortex is a large area of **low pressure and cold air** surrounding both of the Earth's poles.
- It always exists near the poles, but **weakens in summer and strengthens in winter**.
- The term "vortex" refers to the counter-clockwise flow of air that helps keep the colder air near the Poles.
- During winter, the vortex can expand, pushing Arctic air southward, which often leads to cold outbreaks in the Northern Hemisphere, including the U.S., Europe, and Asia.

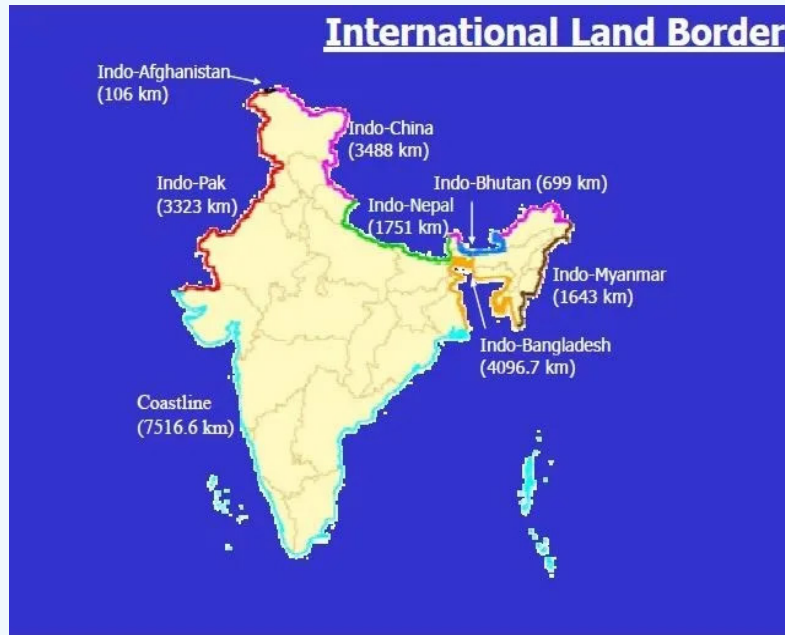
17. (d)

Context

- The Union government has approved the construction of border fencing and roads along the border between India and Myanmar at an approximate cost of ₹31,000 crore.

International Border of India

- India currently has more than **15000 km** of land borders and **more than 7500 km** of maritime borders.



- It shares land borders with seven countries including Afghanistan, Pakistan, China, Nepal, Bhutan, Bangladesh and Myanmar. The borders with the countries are as;
 - **Myanmar:** 1643 kms running along Arunachal Pradesh, Nagaland, Manipur and Mizoram.

18. (a)

In News: The Solimoes River, one of the main tributaries of the Amazon River, is currently experiencing the worst drought on record.

Statement 1 is correct: The Amazon River is the largest river system in terms of the volume of water flow.

Statement 2 is not correct: The river originates high in the Peruvian Andes, not in Brazil. The Amazon River drains into the Atlantic Ocean on the northeastern coast of Brazil.

19. (b)

Context: The Wildlife Conservation Society (WCS) has come up with the High Integrity Forest (HIFOR) Investment Initiative, an innovative mechanism that could unleash critical finances necessary for the protection of the Congo Basin forest.

Congo Basin

- It is the world’s second largest rainforest after the Amazon, spanning across **six countries**—Cameroon, Central African Republic, Democratic Republic of the Congo, **Republic of the Congo, Equatorial Guinea and Gabon.**
- As the **second largest lung of the world**, the Congo Basin shelters approximately 26% of the planet’s rain forests and a wealth of biodiversity.

20. (b)

Statement 1 is not correct: The heat dome effect is a **type of high-pressure system** (also known as anticyclone) that forms over a large area in the atmosphere, and causes extremely hot and dry weather conditions.

- The system **traps hot air** and prevents it from flowing to rise and cool.
- This air then becomes **compressed and heats up**, leading to a dome-shaped area of hot air that can persist for several days or even weeks.

Statement 2 is correct: Heat domes can cause **dangerous heat waves** causing the temperatures to shoot up.

- They can also lead to **drought conditions and wildfire** as the hot and dry weather can quickly dry out vegetation and make it more susceptible to catching fire.

21. (a)

Context: Tuvalu and its 11,000 people, who live on nine atolls scattered across the Pacific, are running out of time.

About

- Tuvalu is an island country in the **West-Central Pacific Ocean**. It sits about halfway between Australia and Hawaii.
- Its neighbours include Kiribati, to the north, and Fiji, to the south.
- It is made up of a chain of 9 small coral islands. The islands are low lying. Many have large lagoons and are surrounded by coral reefs.

22. (a)

Context: India and the Republic of Uzbekistan signed the Bilateral Investment Treaty (BIT) in Tashkent.

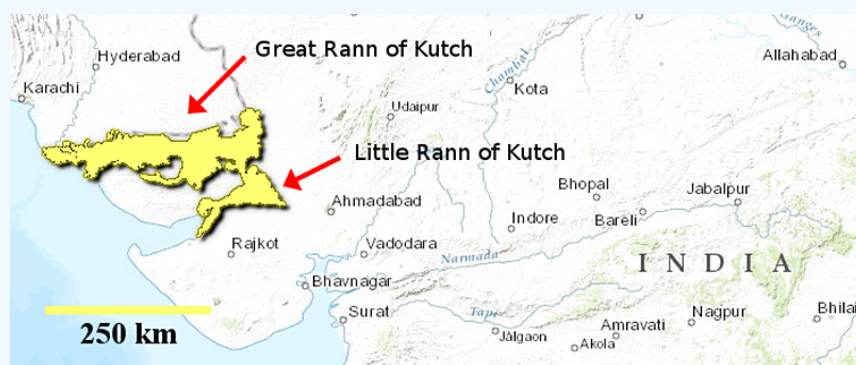
About Uzbekistan

- The territory in the north and north-east of the Republic of Uzbekistan borders with **Kazakhstan**, in the east and south-east with **Kyrgyzstan** and **Tajikistan** in the west with **Turkmenistan**, in the south with Afghanistan.
- **Capital:** Tashkent



23. (b)

Statement 1 is not correct: The Great Rann is located to the north, and the Little Rann is in the southeast.



Statement 2 is correct: The Rann of Kutch spans the India-Pakistan border, with the majority in Gujarat and a small portion in Sindh, Pakistan.

Statement 3 is correct: The Little Rann of Kutch is home to the Indian wild ass and hosts the Wild Ass Wildlife Sanctuary, the largest in India.

GOVERNMENT SCHEMES/INITIATIVES

1. With reference to the SHe-Box, consider the following statements:
 1. It is a centralized portal for registering and monitoring complaints of sexual harassment of women at the workplace.
 2. The portal only caters to complaints from government sector employees.
 3. The portal allows for real-time monitoring of complaints through a designated nodal officer.How many statements given above are correct?
(a) Only one (b) Only two
(c) All three (d) None
2. Consider the following statements regarding the Digital Bharat Nidhi (DBN):
 1. It was established through the Telecommunications Act, 2023, with the objective of funding telecom schemes in underserved remote and rural areas.
 2. DBN replaces the Universal Service Obligation Fund (USOF), which was created under the Indian Telegraph Act of 1885.
 3. The Universal Service Obligation Fund (USOF) was funded by a Universal Access Levy, collected at 10% of the Adjusted Gross Revenue (AGR) from telecom licensees.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
3. With reference to the 'eShram portal', consider the following statements:
 1. There are no income criteria for registering on the e-Shram portal.
 2. It has the provision of Universal Account Number (UAN) that remains unchanged for any worker.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. The Investor Education and Protection Fund Authority (IEPFA) operates under the aegis of which Ministry?
(a) Ministry of Finance (b) Ministry of Corporate Affairs
(c) Ministry of Consumer Affairs (d) Ministry of Commerce and Industry
5. Consider the following statements regarding the AgriSURE Fund:
 1. It is a government initiative aimed at boosting investment in the agricultural sector.
 2. The fund provides financial assistance to farmers for sustainable agricultural practices.
 3. It is managed by the Ministry of Agriculture and Farmers' Welfare.

Which of the above statements is/are correct?

- (a) 1 only (b) 1 and 2 only
(c) 2 and 3 only (d) All of the above

6. Vishanu Yuddh Abhyas, a mock drill on pandemic preparedness, is conducted under which mission in India?

- (a) National Health Mission (NHM)
(b) National Animal Health Mission (NAHM)
(c) National One Health Mission (NOHM)
(d) National Disaster Management Authority (NDMA)

7. Consider the following statements with reference to National Test House

1. It is India's largest multidisciplinary testing laboratory under the Central Government.
2. It is involved in testing and quality assurance for Jal Jeevan Mission and Metro projects.
3. It is the only Government Agency providing Drone certification in India.

Which of the statements given above is/are correct?

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

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

1. It is an initiative of the Union Housing and Urban Affairs Ministry, launched in 2015.
2. It aims to promote cities that provide core infrastructure, clean and sustainable environment and give a decent quality of life to their citizens.

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 regarding the Graphene Innovation Ecosystem in India:

1. The Graphene-Applied Program (GAP) was launched in 2023 to support the development of graphene technology.
2. The India Innovation Centre for Graphene (IICG) was launched by the Ministry of Electronics and Information Technology (MeitY) in Kerala.
3. Digital University Kerala is responsible for implementing the GAP initiative.

Which of the above statements is/are correct?

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

10. With reference to the Swachh Bharat Mission, consider the following statements:

1. It was launched in 2014 with the goal of achieving universal sanitation coverage by 2019.
2. The urban component of the mission is implemented by the Ministry of Urban Development, and the rural component by the Ministry of Drinking Water and Sanitation.

Which of the statements given above is/are correct?

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

- 11.** Consider the following statements with reference to 'VisioNxt'
1. It is funded by the Ministry of Skill Development and Entrepreneurship under the Research & Development scheme.
 2. It is India's first-ever initiative that combines AI and EI to generate fashion trend insights and forecasts.
- 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 schemes are subsumed under Samagra Shiksha scheme?
1. Sarva Shiksha Abhiyan (SSA)
 2. Rashtriya Madhyamik Shiksha Abhiyan (RMSA)
 3. Teacher Education (TE)
 4. Midday Meal Scheme
- Select the correct answer using the code given below:
- (a) 1, 2 and 3 only (b) 1 and 3 only
(c) 2, 3 and 4 only (d) 1, 2, 3 and 4
- 13.** Consider the following statements with reference to the Pradhan Mantri Rashtriya Bal Puraskar (PMRBP):
1. The awards are given to children in the age group 5 – 12 years for their exceptional abilities and outstanding achievements.
 2. Each awardee of PMRBP is given a medal, certificate and a citation booklet.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 14.** Consider the following statements with reference to the District Agro-Meteorology Units (DAMUs):
1. They were established by India Meteorological Department (IMD) to provide local agricultural advisories using weather data.
 2. They were set up under the Paramparagat Krishi Vikas Yojana (PKVY) in 2018.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 15.** Consider the following statements with reference to the Pradhan Mantri Kisan Maandhan Yojna (PM-KMY):
1. It is a voluntary and contributory pension scheme.
 2. Eligible small and marginal farmers are given a fixed monthly pension of Rs. 5,000 after attaining the age of 65.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2

- 16.** With reference to the Pradhan Mantri Kisan Maandhan Yojana (PM-KMY), consider the following statements:
1. It is a social security scheme, launched in 2019.
 2. Eligible small and marginal farmers are given a fixed monthly pension of Rs. 3,000 after attaining the age of sixty.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 17.** With reference to Pradhan Mantri Awas Yojana-Gramin (PMAY-G), which of the following statements is/are correct?
1. The scheme is launched by the Ministry of Rural Development.
 2. The beneficiaries are provided financial Assistance of Rs. 5 Lakh in plain areas and Rs.2.30 lakh in hilly States.
- 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.** With reference to Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) , consider the following statements:
1. It is the world's largest publicly funded health assurance scheme, providing Rs. 20 lakh annual coverage.
 2. The households included are based on the deprivation and occupational criteria of Socio-Economic Caste Census 2011.
 3. It covers up to 3 days of pre-hospitalization and 15 days post-hospitalization expenses such as diagnostics and medicines.
 4. It is being implemented in all states except Gujarat and Rajasthan.
- Which of the statements given above are correct?
- (a) 1 and 3 (b) 2 and 4
(c) 1 and 4 (d) 2 and 3
- 19.** Recently, the Union Cabinet has approved 'Mission Mausam' with an outlay of ₹2,000 crore over two years. Which of the following ministries will be the nodal body implementing the mission?
- (a) Ministry of Environment, Forest and Climate Change
(b) Ministry of Earth Sciences
(c) Ministry of Science and Technology
(d) Ministry of Jal Shakti
- 20.** With reference to the Pradhan Mantri Matsya Sampada Yojana (PMMSY), consider the following statements:
1. The objective of PMMSY is to promote sustainable and responsible development of the fisheries sector to bring about a Blue Revolution.
 2. It aims to increase fish production to 22 million metric tons by the year 2024.
- 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. Saarthi App, recently launched by the Open Network for Digital Commerce (ONDC), is mainly aimed at,
- Helping businesses create multilingual buyer apps
 - Offering financial services to businesses
 - Supporting infrastructure development
 - Promoting agricultural exports
22. Which of the following is NOT a feature of the CREATE initiative recently inaugurated by the Ministry of Micro, Small & Medium Enterprises in Leh?
- Pashmina Wool Roving Facility
 - Training for Bio-processing of local fruits
 - Development of Solar Energy Production Units
 - Essential Oil Extraction from roses and other flowers
23. BHASKAR initiative, recently seen in the news, primarily focuses on
- Promotion of Indian Languages
 - Strengthening of India's startup ecosystem
 - Providing insights into the Sun's activities and their impact on Earth.
 - Developing large language models
24. NPS Vatsalya Scheme, recently seen in the news, mainly focuses on
- Ensuring children's right to survival, and participation
 - Reducing child stunting
 - Securing the financial future of children
 - Providing every child with access to quality education
25. Samagra Shiksha, a centrally sponsored scheme, was recently seen in the news. The scheme is in accordance with which of the following Sustainable Development Goals (SDGs)?
- | | |
|-----------|-----------|
| (a) SDG-1 | (b) SDG-2 |
| (c) SDG-3 | (d) SDG-4 |
26. Consider the following statements with reference to the 'Rangeen Machhli' app:
- It provides multilingual information on popular ornamental fish species in 22 Indian languages.
 - One of its key features is the "Find Aquarium Shops" tool, which allows users to locate nearby aquarium shops.
- Which of the statements given above is/are correct?
- | | |
|------------------|---------------------|
| (a) 1 only | (b) 2 only |
| (c) Both 1 and 2 | (d) Neither 1 nor 2 |
27. With reference to the NPS Vatsalya Scheme, consider the following statements:
- It is a new initiative under the National Pension System designed for long-term investments by parents and guardians on behalf of their minor children.
 - It is a centrally sponsored scheme launched by the Ministry of Finance.
 - Only minors belonging to the weaker and marginalised sections of the society are eligible for 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 PM Vishwakarma Scheme, consider the following statements:

1. It is a central sector scheme, launched by the Ministry of Skill development in 2023.
2. The scheme aims to provide end-to-end support to artisans and crafts people who work with their hands and tools.
3. Eighteen traditional trades are covered in the first instance under PM Vishwakarma.

How many of the statements given above are correct?

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

29. Consider the following statements regarding the Food Import Rejection Alert (FIRA) developed by the Food Safety and Standards Authority of India (FSSAI):

1. FIRA provides an online interactive platform for tracking food consignments rejected due to non-compliance with India's food safety standards.
2. The system aims to strengthen the risk management system by notifying only food importers about the rejected products.

Which of the above statements is/are correct?

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

30. With reference to the Nagar Van Yojana (NVY), consider the following statements:

1. The scheme was launched in 2020, for the creation of Nagar Vans in urban areas.
2. The scheme covers only the tier 1 cities with high pollution levels.

Which of the statements given above is/are correct?

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

31. Consider the following statements with reference to the National Supercomputing Mission:

1. It was launched in 2015 by the NITI Aayog.
2. The mission aims to boost India's supercomputing infrastructure amid increasing demand in sectors such as academia, researchers, MSMEs, and startups.

Which of the statements given above is/are correct?

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

32. With reference to the Ayushman Bharat Digital Mission (ABDM), consider the following statements:

1. Ayushman Bharat Digital Mission aims to create a national digital health ecosystem that supports universal health coverage.
2. The mission involves the creation of a Health ID for every citizen to store medical records.
3. ABDM is limited to public healthcare facilities and does not include private hospitals or clinics.

Which of the above statements is/are correct?

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

33. Which of the following clearances can be obtained using PARIVESH Portal ?

1. Environmental Clearance (EC)
2. Forest Clearance (FC)
3. Coastal Regulatory Zone (CRZ) clearance
4. Wildlife (WL) clearance.

Select the correct answer using the code given below:

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

EXPLANATIONS

1. (b)

Context

- The Union Ministry of Women and Child Development has launched SHe-Box, a centralised portal for registering and monitoring complaints of sexual harassment of women at the workplace.

About

- It serves as a centralized repository of information related to **Internal Committees (ICs)** and **Local Committees (LCs)** formed, encompassing both the government and private sectors.
- It offers a **common platform to file complaints, track their status**, and ensure a time-bound processing of complaints by ICs.
- It also provides **assured redressal of complaints** and a streamlined process for all stakeholders.
- **Statement 3 is correct:** The portal through a designated nodal officer will enable **real-time monitoring** of complaints.
- **Statement 2 is not correct:** **Any working women** can register complaints of sexual harassment.

2. (a)

Statement 1 is correct: DBN was established through the Telecommunications Act, 2023, to fund telecom schemes in underserved remote and rural areas.

Statement 2 is correct: DBN replaces the Universal Service Obligation Fund (USOF), which was created under the Indian Telegraph Act of 1885.

Statement 3 is not correct: The USOF was funded by a Universal Access Levy collected at 5% of the Adjusted Gross Revenue (AGR) from telecom licensees, not 10%.

3. (c)

In News: Recently, eShram portal achieved over 30 crore registrations in the span of just 3 years after launch.

- **eShram Portal** was launched by the **Ministry of Labour & Employment** on 26th August 2021.
- It is a comprehensive **National Database of Unorganised Workers (NDUW)** that primarily targets **unorganised workers**, including those in sectors like construction, agriculture, domestic work, and street vending.

Statement 1 is correct: There are **no income criteria** for registering on e-Shram as an unorganised worker. However, the **worker should not be an income tax payee**.

Statement 2 is correct: Workers will be provided with an **e-SHRAM card** which will have a **12 digit unique number**.

- **Universal Account Number (UAN)** is a 12 digit number uniquely assigned to each unorganised worker after registration on the e-Shram portal.
- **UAN is a permanent number** i.e., once assigned, it will remain unchanged for any worker.

4. (b)

The IEPFA was established under the provisions of Section 125 of the Companies Act, 2013. It operates under the aegis of the Ministry of Corporate Affairs. IEPFA is responsible for managing the Investor Education and Protection Fund, which accumulates unclaimed dividends, matured deposits, shares, debentures, and other financial assets from companies.

5. (b)

Statement 1 is correct: The AgriSURE Fund aims to attract investment in the agricultural sector, particularly for modernizing infrastructure and supporting sustainable practices.

Statement 2 is correct: The fund provides financial assistance to farmers and agribusinesses focusing on sustainable agriculture, including climate-resilient farming techniques.

Statement 3 is not correct: The AgriSURE Fund is generally managed by entities like NABARD (National Bank for Agriculture and Rural Development) or financial institutions related to agriculture and not directly by the Ministry of Agriculture and Farmers' Welfare.

6. (a)

In News

- The central government conducted a five-day mock drill named **Vishanu Yudh Abhyaas (Virus War Exercise)**

About Vishanu Yudh Abhyaas

- The drill took place over five days in Ajmer district, Rajasthan.
- It is conducted under the **National One Health Mission (NOHM)**.
- It aims to assess pandemic preparedness and response to zoonotic disease outbreaks.
 - **Zoonotic Diseases** include infections spread between people and animals, such as avian influenza, Nipah, and Zika, caused by viruses, bacteria, parasites, and fungi.

7. (d)

In News: Memorandum of Understanding (MoU) signed between the National Test House (NTH) and the Bureau of Energy Efficiency (BEE) to strengthen the Standards & Labelling (S&L) Program to promote energy efficiency in India.

All the statements are correct : National Test House was established in 1912.

- It is under the aegis of the **Department of Consumer Affairs, Government of India**.
- It is a **leading scientific organization** involved in testing and quality assurance for national projects, including **Jal Jeevan Mission, Bullet Train, Metro projects, and others**.
- It is also the only Government Agency providing Drone certification in India.

8. (c)

Smart Cities Mission

- It is an initiative of the **Union Housing and Urban Affairs Ministry**, launched in **2015**. The Mission is operated as a **Centrally Sponsored Scheme**.
- **Objective:** To promote cities that provide core infrastructure, clean and sustainable environment and give a decent quality of life to their citizens through the application of 'smart solutions'.
- **100 cities** have been selected to be developed as Smart Cities through a two-stage competition for five years.

9. (c)

Statement 1 is correct: The Graphene-Applied Program (GAP) was launched in 2023 to foster innovation and build a graphene technology ecosystem.

Statement 2 is correct: The India Innovation Centre for Graphene (IICG), launched by MeitY, aims to develop India's first graphene hub in Kerala.

Statement 3 is correct: The GAP initiative is being implemented by Digital University Kerala, furthering the state's role as a leader in graphene technology.

10. (c)

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

- It consisted of two sub-missions, **urban, and rural or Gramin (G)**.
 - The urban component of the mission is implemented by the **Ministry of Urban Development**, and the rural component by the **Ministry of Drinking Water and Sanitation**.
- SBM(G) sought to improve “the levels of cleanliness through **Solid and Liquid Waste Management activities** and making Gram Panchayats **Open Defecation Free (ODF)**, clean and sanitized.

11. (b)

In News : Union Minister of Textiles launched ‘VisioNxt’, **India's first-ever initiative** that combines AI and EI to generate fashion trend insights and forecasts.

About

- VisioNxt—a Trend Insights and Forecasting Initiative—was conceived and established at NIFT Delhi (Creative Lab) and NIFT Chennai (Insights Lab), with the support of the **Ministry of Textiles**, Government of India, in 2018.
- The initiative, now centralized in Chennai, focuses on delivering trend insights and forecasting for the Indian fashion and retail market.

12. (a)

Samagra Shiksha scheme

- It is a central government-sponsored scheme for the school education sector extending from pre-school to class XII and aims to ensure inclusive and equitable quality education at all levels of school education.
- **The Scheme subsumes** the three erstwhile Centrally Sponsored Schemes viz;
 - Sarva Shiksha Abhiyan (SSA),
 - Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and
 - Teacher Education (TE).
- **Major objectives** of the Scheme are:
 - Support States and UTs in implementing the recommendations of the **National Education Policy 2020 (NEP 2020)**;
 - Support States in implementation of Right of Children to Free and Compulsory Education (**RTE) Act, 2009**;
 - Focus on Early Childhood Care and Education;
 - Emphasis on Foundational Literacy and Numeracy etc.

13. (b)

Pradhan Mantri Rashtriya Bal Puraskar (PMRBP)

- The awards are given to children in the **age group 5 – 18** years for their excellence in **seven categories** for Bravery, Art & Culture, Environment, Innovation, Science & Technology, Social Service and Sports that deserve national recognition.
- Each awardee of PMRBP is given a **medal, certificate and a citation booklet**.

14. (a)

In News : The India Meteorological Department (IMD) plans to revive the District Agro-Meteorology Units (DAMUs) under the Gramin Krishi Mausam Sewa (GKMS) scheme.

Statement 1 is correct : District Agro-Meteorology Units (DAMUs) were originally established by **India Meteorological Department (IMD)** in collaboration with the Indian Council of Agricultural Research to provide local **agricultural advisories using weather data**.

- They are located within **Krishi Vigyan Kendras (KVKs)** and they use IMD weather data to create and disseminate advisories.

Statement 2 is not correct : DAMUs were set up under the **Gramin Krishi Mausam Sewa (GKMS) scheme** in 2018. They help farmers, particularly small and marginal ones who practice rain-fed agriculture, by providing crucial weather-related information and early warnings for extreme events.

- Advisories include recommendations on sowing, harvesting, irrigation, and the use of fertilizers and pesticides, delivered twice a week in local languages.

15. (a)

Pradhan Mantri Kisan Maandhan Yojana (PM-KMY)

- Launched on September 12, 2019, it is a **voluntary and contributory** pension scheme.
- Farmers aged between 18 and 40 years need to contribute between Rs. 55 to Rs. 200 per month until they turn 60.
- Eligible small and marginal farmers are given a fixed monthly pension of **Rs. 3,000** after **attaining the age of 60**.
- Under the scheme, **Bihar leads** with over 3.4 lakh registrations while Jharkhand ranks second with over 2.5 lakh registrations.

16. (c)

Both the statements are correct: **Pradhan Mantri Kisan Maandhan Yojana (PM-KMY)** was launched in **2019**, the PM-KMY has been providing **social security to all land-holding Small and Marginal Farmers (SMFs)** across the country.

- It is a **voluntary and contributory pension scheme**.
 - Eligible small and marginal farmers are **given a fixed monthly pension of Rs. 3,000** after attaining the **age of sixty**.
 - Farmers aged between **18 and 40 years** need to contribute between **Rs. 55 to Rs. 200 per month** until they turn 60.
 - The Central Government, through the Department of Agriculture Cooperation and Farmers Welfare, also contributes an **equal amount as contributed by the eligible subscriber, to the pension Fund**.

17. (a)

What is PMAY-G?

- **The Ministry of Rural Development** is implementing Pradhan Mantri Awaas Yojana- Gramin (PMAY-G) to provide assistance to eligible rural households with an overall target to construct **2.95 crore pucca houses** with basic amenities.

- The beneficiaries are provided financial Assistance of **Rs.1.20 lakh in plain areas** and **Rs.1.30 lakh in hilly States**.
- The Union Cabinet has approved implementation of the scheme during **FY 2024-25 to 2028-29** to provide financial assistance for the construction of **two crore** more houses.

18. (d)

In News : The Union Cabinet has approved extending Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) health coverage to all senior citizens aged 70 and above, regardless of income.

Statements 1 and 4 are incorrect : AB PM-JAY is the world's largest publicly funded health assurance scheme.

- **It provides Rs. 5 lakh annual** coverage per family for secondary and tertiary care hospitalizations.
- The scheme is being implemented in 33 States/UTs except for the **NCT of Delhi, West Bengal, and Odisha**.

Statements 2 and 3 are correct : The households included are based on the deprivation and occupational criteria of Socio-Economic Caste Census 2011 (SECC 2011) for rural and urban areas respectively.

- **Expenses Covered:** Up to 3 days of pre-hospitalization and 15 days of post-hospitalization expenses (e.g., diagnostics, medicines).
 - No restrictions on family size, age, or gender.
 - Coverage includes all pre-existing conditions from day one.

19. (b)

Context: The Union Cabinet has approved 'Mission Mausam' with an outlay of ₹2,000 crore over two years.

About

- The **Ministry of Earth Sciences** will be the nodal body implementing the mission.
- The aim of the programme will be to **bolster research and development**, and capacity in atmospheric sciences, weather surveillance, modelling, forecasting, and management.
- Critical elements of Mission Mausam will include deploying next-generation radars and satellite systems.

20. (c)

In News: The Pradhan Mantri Matsya Sampada Yojna (PMMSY) completes 4 Years.

Statement 1 is correct: The primary objective of PMMSY is to promote the sustainable and responsible development of the fisheries sector and bring about a Blue Revolution.

Statement 2 is correct: PMMSY aims to increase fish production to 22 million metric tons by 2024.

The PMMSY is an umbrella scheme with two separate Components namely (a) Central Sector Scheme (CS) and (b) Centrally Sponsored Scheme (CSS).

Central Sector Scheme: In this component, the entire funding is provided by the central government.

Centrally Sponsored Scheme: In this component, the funding is shared between the central government and the state governments.

21. (a)

Context

- **The Open Network for Digital Commerce (ONDC)** launched Saarthi, a new reference application aimed at helping businesses create customized multilingual buyer apps.

About

- It is developed in collaboration with **Bhashini** which is an AI-powered language translation tool.
- The app initially supports **Hindi, English, Marathi, Bangla and Tamil**, with plans to scale up to all **22 languages** provided by Bhashini.

22. (c)

The Ministry of Micro, Small & Medium Enterprises has inaugurated the Centre for Rural Enterprise Acceleration through Technology (CREATE) setup at Leh.

About

- CREATE will provide a Pashmina Wool Roving Facility, Training for development of production facility for Essential Oil Extraction from Roses and Other Flowers and Training for development of production facility for Bio-processing of available fruits and other raw materials.
- It will enhance local productivity, product quality, economic potential and improve livelihoods for the local communities.

23. (b)

Context: The Department for Promotion of Industry and Internal Trade (DPIIT) is set to launch the BHASKAR initiative, a groundbreaking digital platform aimed at **strengthening India's startup ecosystem**.

About

- The Bharat Startup Knowledge Access Registry (BHASKAR) initiative, under the Startup India program, is a platform designed to centralize, streamline, and enhance collaboration among key stakeholders within the entrepreneurial ecosystem, including startups, investors, mentors, service providers, and government bodies.
- It will enhance the efficiency, collaboration, and growth potential within the startup community.

24. (c)

Context: The Union Finance Minister is set to launch the **NPS Vatsalya scheme**.

About

- NPS Vatsalya will allow parents to save for their children's future by investing in a pension account and ensure long-term wealth with the power of compounding.
- NPS Vatsalya offers flexible contributions and investment options, allowing parents to make an investment of Rs. 1,000 annually in the name of the child, thus making it accessible to families from all economic backgrounds.
- This new initiative is designed to start early in **securing the financial future of children**, marking an important step in India's pension system.
- The Scheme will be run under the Pension Fund Regulatory and Development Authority (PFRDA).

25. (d)

Context: Tamil Nadu is yet to receive this year's funds from the Union government under the flagship education scheme Samagra Shiksha.

About

- The **Centrally sponsored scheme** of **Samagra Shiksha** of the Department of School Education and Literacy is an overarching programme for the school education sector extending from pre-school to class XII.
- The scheme treats school education as a continuum and is in accordance with Sustainable Development Goal for Education (**SDG-4**).

26. (b)

Context: The Union Minister for Fisheries, Animal Husbandry and Dairying launched the “Rangeen Machhli” mobile app, designed to meet the growing needs of the **ornamental fisheries sector**.

About

- The app provides multilingual information on popular ornamental fish species in **eight Indian languages**, making it accessible to a wide audience including hobbyists, aquarium shop owners, and fish farmers.
- One of its key features is the “**Find Aquarium Shops**” tool, which allows users to locate nearby aquarium shops through a dynamic directory updated by shop owners, promoting local businesses and connecting users with reliable sources for ornamental fish and aquarium-related products.
- It is developed by **ICAR-CIFA** (Indian Council of Agricultural Research-Central Institute of Freshwater Aquaculture) with support from the **Pradhan Mantri Matsya Sampada Yojana** (PMMSY).

27. (a)

Statement 1 is correct: Introduced in the **Union Budget 2024-25**, NPS Vatsalya is a new initiative under the **National Pension System** designed for **long-term investments by parents and guardians on behalf of their minor children**.

Statement 2 and 3 are not correct: It is a **centrally sponsored scheme** launched by the **Ministry of Women and Child Development**.

- **Eligibility criteria:** **Any minor**, having PAN card and Aadhar card, who is under the age of 18 is eligible.

28. (b)

Statement 1 is not correct: PM Vishwakarma Scheme is a central sector scheme, launched by the **Ministry of Micro, small and medium enterprises in 2023** for a period of five years.

Statement 2 and 3 are correct: The scheme aims to provide end-to-end support to **artisans and crafts people who work with their hands and tools**.

- **Eighteen traditional trades** are covered in the first instance under PM Vishwakarma.

29. (a)

In News: The FIRA online portal was launched during the 2nd edition of the Global Food Regulators Summit 2024.

Statement 1 is correct: FIRA provides an online platform that helps track rejected food consignments and ensures enhanced traceability and transparency.

Statement 2 is not correct: FIRA notifies both the **public** and **food safety authorities**, not just food importers.

30. (a)

Statement 1 is correct: The scheme, **Nagar Van Yojana (NVY)** was launched in **2020**, for creation of **Nagar Vans in urban areas**, which promotes urban forestry by involving local communities, NGOs, educational institutions, local bodies, etc.

Statement 2 is not correct: The scheme provides financial assistance of **Rs. 4 lakh per hectare** for the creation and maintenance of these urban forests.

- Nagar Van areas range from a **minimum of 10 ha to 50 ha**.
- **The scheme covers all cities** with **Municipal Corporations, Municipalities and Urban Local Bodies (ULBs)**.

31. (b)

Context: Prime Minister Narendra Modi has launched three PARAM Rudra supercomputers, developed indigenously under the National Supercomputing Mission (NSM).

National Supercomputing Mission

- The mission launched in 2015, is being jointly steered by the Department of Science and Technology (DST) and Ministry of Electronics and IT (MeitY).
- It aims to boost India's supercomputing infrastructure amid increasing demand in sectors such as academia, researchers, MSMEs, and startups.
- Under the mission, the first indigenously assembled supercomputer, named PARAM Shivay, was installed at IIT (BHU) in 2019.

32. (a)

Statement 1 is correct: The Ayushman Bharat Digital Mission (ABDM) aims to create a comprehensive digital health infrastructure that ensures universal health coverage through an integrated ecosystem.

Statement 2 is correct: Under the ABDM, every citizen is assigned a unique Health ID, which will serve as a repository for storing and managing individual health records.

Statement 3 is not correct: ABDM is not limited to public healthcare facilities; it includes both public and private healthcare providers, integrating them into a single digital health ecosystem.

33. (d)

In News : The Ministry of Environment, Forest and Climate Change (MoEFCC) received only 32 applications to register exotic species on the Parivesh 2.0 portal.

- PARIVESH stands for (Pro-Active Responsive Facilitation by Interactive and Virtuous Environmental Singlewindow Hub).
- The government launched the "PARIVESH" portal on August 10, 2018, as part of the Digital India initiative to **streamline Environment (EC), Forest (FC), Wildlife (WL), and Coastal Regulation Zone (CRZ) clearances.**
 - Over 50,000 clearances have been granted since its launch.
- PARIVESH portal is Designed, Developed and Hosted by National Informatics Centre, Ministry of Electronics & IT (MeitY) .
- The Ministry of Environment, Forest, and Climate Change has introduced policy and technological reforms to expedite the clearance process while maintaining environmental safeguards, reducing the average approval times for EC and FC.
- **Developments:** To improve user experience, the PARIVESH portal has been expanded to include new features like a GIS-based Decision Support System (DSS), Know Your Approval (KYA) module, Common Application Form (CAF), and Compliance Management module.
 - The PARIVESH 2.0 portal has been enhanced to create a comprehensive, technology-driven solution for managing all green clearances and monitoring compliance nationwide.



DEFENSE/ INTERNAL SECURITY

1. Samudra Pratap, recently mentioned in the news, is related to which of the following?
- (a) Pollution control vessel (b) Indigenous Aircraft Carrier
(c) Deep Sea Mining Exploration Vessel (d) Research and Survey Vessel
2. The bilateral naval 'Exercise Varuna' is conducted between India and which one of the following countries?
- (a) United Kingdom (b) Vietnam
(c) United States (d) France
3. With reference to India's high-profile Defence exercises, consider the following pairs:
- | <i>Name of Exercise</i> | <i>Participating countries</i> |
|-------------------------|--------------------------------|
| 1. Yudh Abhyas | Indonesia |
| 2. INDRA | Japan |
| 3. Varuna | France |
| 4. Mitra Shakti | Sri Lanka |
- How many of the above pairs are correctly matched?
- (a) Only one (b) Only two
(c) Only three (d) All four
4. The term 'Malpe and Mulki', recently seen in the news, are
- (a) Anti-submarine warfare vessels (b) Tribes of Northeast India
(c) India's sinking islands (d) Craters discovered on Mars
5. With reference to India's high-profile defence exercises, consider the following pairs:
- | <i>Name of Exercise</i> | <i>Participating countries</i> |
|-------------------------|--------------------------------|
| 1. AL NAJAH | United Arab Emirates |
| 2. Eastern Bridge | Oman |
| 3. VARUNA | United Kingdom |
- How many of the above pairs are correctly matched?
- (a) Only one (b) Only two
(c) Only three (d) None
6. With reference to the INDUS-X initiative, consider the following statements:
1. The INDUS-X initiative was launched in 2023 to enhance defense industrial cooperation between India and the USA.
 2. The initiative is part of the U.S.-India initiative on Critical and Emerging Technology (iCET).
 3. It is exclusively steered by the U.S. Department of Defense (DoD) and has no involvement from Indian agencies.

Which of the statements given above is/are correct?

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

7. Which of the following states are covered under the Road Connectivity Project for LWE affected areas (RCPLWE)?

1. Bihar 2. Madhya Pradesh
3. Maharashtra 4. Odisha
5. Uttar Pradesh

Select the correct answer using the code given below:

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

8. ODAB-1500 recently seen in news, is related to which of the following;

- (a) Cruise missile (b) Coast guard vessel
(c) Thermobaric Weapons (d) Ballistic Missile

9. Consider the following statements with reference to Vertical Launch Short Range Surface-to-Air Missile (VL-SRSAM):

1. It is a ship-borne weapon system, developed by the Defence Research and Development Organisation.
2. Its design is based on Astra missile which is a Beyond Visual Range Air-to-Air missile.

Which of the statements given above is/are correct?

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

10. With reference to Central Armed Police Forces (CAPF), Consider the following pairs:

- | Force | : | Indian Borders |
|--------------------------|----------|-------------------------|
| 1. Border Security Force | : | Pakistan and Bangladesh |
| 2. Sashastra Seema Bal | : | Nepal and Bhutan |
| 3. Assam Rifles | : | Myanmar |

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

11. Which of the following statements is not correct regarding the robotic mules, inducted by the Indian Army recently?

- (a) The two-legged robotic mules are equipped with thermal cameras and other sensors.
(b) They can climb stairs and steep hills.
(c) They can operate in extreme temperatures, ranging from -40 to +55 degrees Celsius.
(d) They can be integrated with small arms, and can engage with an enemy.

12. Which of the following statements is correct regarding Exercise GARUDA SHAKTI ?

- (a) It promotes cultural exchanges between the armed forces of Oman and India .
(b) It is a joint military exercise between India and Indonesia.
(c) It enhances joint maritime security cooperation between Japan and India.
(d) It focuses upon counter-terrorism cooperation between France and India.

13. With reference to the Armed Forces (Special Powers) Act (AFSPA), which of the following statements is/are correct?
1. Under AFSPA, the declaration of a “disturbed area” can only be made by the President of India.
 2. AFSPA allows the armed forces to search premises and arrest individuals without warrants.
 3. The prosecution of armed forces personnel under AFSPA requires prior sanction from the Union Government.

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. Which of the following statements regarding thermobaric weapons is/are correct?

1. Thermobaric weapons rely on the atmosphere’s oxygen to fuel their explosive power, unlike conventional explosives.
2. Thermobaric weapons cause a dual impact of intense heat and pressure, making them particularly destructive in enclosed spaces like bunkers and tunnels.

Select the correct answer using the code given below:

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

EXPLANATIONS

1. (a)

Context

- The indigenously built pollution control vessel of the Indian Coast Guard (ICG), Samudra Pratap, was launched in Goa.

About

- The Ship has been built by Goa Shipyard Limited (GSL) for the Indian Coast Guard (ICG).
- The vessel will help to check the oil spillage in the country’s sea coast. It contains specialized equipment for the containment, recovery, separation, and dispersal of pollutants.
- Samudra Pratap can recover oil at a rate of 300 tonnes per hour and has a storage capacity for 300 tonnes or 1,000 tonnes in inflatable barges.

2. (d)

Context: Recently, a P8I aircraft of the Indian Navy has reached France to participate in ‘Exercise Varuna’ with the French Navy.

About

- While the bilateral exercise between the two navies were initiated in 1993, it was christened as ‘VARUNA’ in 2001 and has become a hallmark of India – France strategic bilateral relationship.
- The 2024 edition of Indo-French bilateral naval ‘Exercise Varuna’, conducted from September 2 to 4 in the Mediterranean Sea, included advanced tactical exercises underscoring the deepening synergy and interoperability between the two navies.

3. (b)

In News : India has been actively engaged in military diplomacy through a series of high-profile exercises with various countries.

Pairs 1 and 2 are incorrectly matched : Yudh Abhyas: Scheduled to start on September 9, 2024, at the Mahajan field firing ranges in Rajasthan, between **India-U.S.**

- **Exercise Indra:** Indian Army's mechanized infantry contingent will participate in this bilateral exercise with **Russia**.

Pairs 3 and 4 are correctly matched: Mitra Shakti: The 10th edition with Sri Lanka was held from August 12-25 in **Sri Lanka**.

- **Varuna:** The Indian Navy's INS Tabar and a P-8I aircraft took part in this bilateral exercise with **France** from September 2-4 in the Mediterranean Sea.

4. (a)

Context

- Malpe and Mulki, fourth and fifth ships of the eight **Anti-Submarine Warfare Shallow Water Craft (ASW SWC)** project, being built by M/s Cochin Shipyard Ltd, for the Indian Navy, were launched.
 - **Mahe, Malvan and Mangrol** are the first three ships of the ASW SWC project.

About

- Malpe and Mulki, **named after ports** of strategic importance along the coast of India, are the **Mahe-class of ships** and will replace the in-service **Abhay class ASW Corvettes** of the Indian Navy.
- It is designed to undertake **anti-submarine operations** in coastal waters, low intensity maritime operations and mine-laying operations, apart from search and rescue.
- Equipped with **light-weight torpedoes**, anti-submarine warfare rockets, a close-in weapon system, and remote-controlled guns, these ships can achieve a maximum speed of 25 knots with endurance of up to 1800 nautical miles.

5. (a)

News: In the last few months, India's military diplomacy is at a hectic pace with back-to-back military exercises from countries far and wide for all three Services.

- **Exercise AL NAJAH:** The 5th edition of **India-Oman joint military Exercise AL NAJAH** was recently begun in Salalah, Oman.
 - Exercise AL NAJAH has been held **biennially** since **2015**, alternating between India and Oman.
- **Exercise EASTERN BRIDGE VII:** The 7th edition of Exercise Eastern Bridge, **between the Royal Oman Air Force and the Indian Air Force**, was recently begun at Air Force base Masirah, Oman.
 - The 1st edition of bilateral exercise Eastern Bridge was also held at Oman in 2009.
- **Exercise VARUNA:** Recently, the **Indian and French** navies held their 22nd edition of bilateral naval exercise 'VARUNA' in the Mediterranean Sea.
 - The bilateral exercise VARUNA, which began in 2001, has evolved significantly over the years.

6. (a)

Statement 1 is correct: The INDUS-X initiative was launched in 2023 to enhance defense cooperation between India and the USA.

Statement 2 is correct: It is part of the U.S.-India initiative on Critical and Emerging Technology (iCET).

Statement 3 is not correct: The initiative is steered by both iDEX (India) and DIU (USA), under the respective Ministries of Defense.

7. (d)

In News : The Centre has doubled the allocation of funds under the **Road Connectivity Project for Left Wing Extremism Affected Areas (RCPLWEA)** for financial year 2024-25,

- Earlier, the Union Home Minister announced that Left Wing Extremism will be “completely eradicated” in the country before March 2026.

RCPLWEA is a separate vertical under the Pradhan Mantri Gram Sadak Yojana (PMGSY).

- It is aimed at providing all-weather road connectivity with culverts and cross-drainage structures in 44 worst-affected Left-Wing Extremism (LWE) districts and adjoining districts in nine states, which are “critical from security and communication point of view”.
- **Covered states :** Andhra Pradesh, **Bihar**, Chhattisgarh, Jharkhand, **Madhya Pradesh**, **Maharashtra**, **Odisha**, Telangana and **Uttar Pradesh**.

8. (c)

Context

- Russia’s use of **ODAB-1500 thermobaric weapons** in Ukraine has drawn significant attention due to their devastating effects.

What Are Thermobaric Weapons?

- Thermobaric weapons, also known as “**vacuum bombs**” or “**enhanced blast weapons**,” rely on the atmosphere’s oxygen to fuel their explosive power.
- Unlike conventional explosives that contain both fuel and oxidizer, thermobaric bombs **release a fuel cloud**, which, when ignited, causes a high-temperature explosion.
- This explosion **generates a blast wave of immense pressure, followed by a rapid vacuum effect** as the oxygen in the vicinity is consumed.

9. (c)

Context: India successfully conducted the flight test of the Vertical Launch Short Range Surface-to-Air Missile (VL-SRSAM) from the test facility off the Odisha coast.

About

- The VL-SRSAM is a **ship-borne weapon system**, developed by the Defence Research and Development Organisation (**DRDO**) to neutralise various aerial threats at close ranges, including sea-skimming targets.
- Its design is based on **Astra missile** which is a Beyond Visual Range Air-to-Air missile.
- The VL-SRSAM system has been designed to strike at the high-speed airborne targets at the range of 40km to 50km and at an altitude of around 15km.

10. (c)

All the Pairs are correctly matched.

Central Armed Police Forces (CAPF)

- The Central Armed Police Forces (CAPF) is the collective name of **central police organizations** under the **Ministry of Home Affairs** of India.
- These forces are responsible for internal security and guarding the borders. CAPF is classified as;
 - **Assam Rifles (AR):** It is a central police and paramilitary organization responsible for guarding the **Indo-Myanmar** border and conducting counter insurgency operations in the North East.
 - **Border Security Force (BSF):** It is primarily deployed along the Pakistan and Bangladesh borders, since 2009 it is also posted in Left Wing Extremism (LWE) affected areas.
 - **Sashastra Seema Bal (SSB):** It guards the Indo-Nepal and Indo-Bhutan borders.

11. (a)

Context: The Indian Army has inducted 100 robotic mules (**Multi-Utility Legged Equipment**) in forward areas.

About

- The **four-legged** robotic mules have a sleek design and are equipped with **thermal cameras and other sensors**, which enable them to carry out surveillance.
- They **can climb stairs, steep hills** and other hurdles and can operate in extreme temperatures, ranging from **-40 to +55 degrees Celsius** and carry a payload of **15kg**.
- They can also be **integrated with small arms**, and can engage with an enemy without putting a human life at risk, if needed.

12. (b)

Exercise GARUDA SHAKTI is a joint training exercise between Indian Special Forces and the Indonesian Special Forces.

- It aims at enhancing understanding, cooperation and interoperability between the Special Forces of both armies. The scope of the joint exercise includes orientation to advance special forces skills, sharing of information on weapons, equipment, innovations, tactics, techniques & procedures.

13. (b)

About AFSPA

- Enacted by the Parliament and approved by the President in 1958.
- Grants **extraordinary powers & immunity** to the armed forces to bring back order in the “**disturbed areas**”.
 - An area can be disturbed due to **differences or disputes b/w members of different religious, racial, language or regional groups or castes or communities**.
- **Provisions:**
 - **Section 3: Empowers the Governor** of the State/Union territory to declare the whole or part of the State or Union Territory as a **disturbed area. Hence, statement 1 is not correct.**
 - **Section 4:** Gives the **powers to the Army** to search premises and make arrests **without warrants**.
 - **Section 6:** Stipulates that **arrested persons and the seized property are handed over to police**.
 - **Section 7:** The prosecution is permitted only after the sanction of the Central Government.
- **Rationale behind its imposition**
 - Effective functioning of forces in **counter-insurgency / terrorist operations**.
 - Protection of members of Armed forces
 - Maintaining Law & Order
 - Security & sovereignty of the nation

14. (c)

In News: The recent use of Russia’s ODAB-1500 thermobaric bomb near Kupyansk in Ukraine has drawn attention to the devastating capabilities of these weapons.

Statement 1 is correct: Thermobaric weapons use the atmosphere’s oxygen to fuel their explosion, unlike conventional explosives that have their own oxidizers.

Statement 2 is correct: These weapons cause a dual impact of intense heat and pressure, making them highly destructive, especially in confined areas.



INTERNATIONAL RELATIONS

- 1.** With reference to the Forum on China-Africa Cooperation (FOCAC), consider the following statements:
1. It was established in 2000 to formalise the strategic partnership between China and African nations.
 2. All African countries are part of the forum.
- 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.** With reference to the International Criminal Police Organization (INTERPOL), consider the following statements:
1. It is the world's largest and only organization with the mandate and technical infrastructure to share police information globally.
 2. It is headquartered in Brussels and has more than 190 member countries, including 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
- 3.** Consider the following statements regarding the Eastern Economic Forum (EEF):
1. The Eastern Economic Forum (EEF) is an initiative by Russia to promote economic development and attract investment in its Far East region.
 2. India is a significant participant in the EEF.
- Which of the statements given above is/are correct?
- (a) Only 1 (b) Only 2
(c) Both 1 and 2 (d) Neither 1 nor 2
- 4.** Which of the following statements regarding the India-Middle East-Europe Economic Corridor (IMEC) are correct?
1. IMEC was announced during the sidelines of the G20 summit in New Delhi.
 2. The corridor will consist of railroad, ship-to-rail networks, and road transport routes.
 3. IMEC consists of two key corridors: an East Corridor connecting India to the Gulf and a Northern Corridor connecting the Gulf to Europe.
 4. Member nations of IMEC include India, the European Union, China, Saudi Arabia, UAE, and the US.
- Select the correct answer using the codes below:
- (a) 1 and 4 only (b) 2 and 3 only
(c) 2, 3, and 4 only (d) 1, 2, and 3 only

5. Which among the following countries are a member of the BRICS?
1. Argentina
 2. Iran
 3. Australia
 4. Egypt
- Select the correct answer using the code given below:
- (a) 1, 2 and 3 only (b) 2, 3 and 4 only
(c) 2 and 4 only (d) 1, 2, 3 and 4
6. Which among the following countries are a member of the Gulf Cooperation Council (GCC)?
1. Kuwait
 2. Egypt
 3. Qatar
 4. Iran
 5. United Arab Emirates
- Select the correct answer using the code given below:
- (a) 1, 2, 3 and 4 only (b) 1, 3 and 5 only
(c) 2, 3 and 5 only (d) 2, 3, 4 and 5 only
7. Which among the following has become the latest country to join the International Solar Alliance (ISA) as a full member?
- (a) Singapore (b) Paraguay
(c) Nepal (d) Spain
8. Consider the following statements with reference to Financial Action Task Force (FATF):
1. It was established in 1989 on recommendations of the International Monetary Fund (IMF).
 2. It is mandated to tackle global money laundering and terrorist financing.
 3. India became a member of FATF in 2010.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only (b) 2 only
(c) 1 and 3 only (d) 2 and 3 only
9. With reference to the International Civil Aviation Organization (ICAO), consider the following statements:
1. ICAO was established in 1947 by the Chicago Convention of 1944.
 2. The headquarters of ICAO is located in Montreal, Canada.
 3. ICAO is responsible for regulating military and civil aviation operations globally.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 only (d) 1, 2, and 3
10. 'Operation Sadbhav' recently launched by India is related to which of the following countries?
1. Cambodia
 2. Laos
 3. Maldives
 4. Myanmar
- Select the correct answer using the code given below:
- (a) 1, 2 and 3 only (b) 2, 3 and 4 only
(c) 2 and 4 only (d) 1, 2, 3 and 4
11. With reference to the Indus Water Treaty, consider the following statements:
1. The treaty allocates the waters of the three eastern rivers (Beas, Ravi, and Sutlej) to India and the three western rivers (Indus, Chenab, and Jhelum) to Pakistan.

2. In case the dispute arises between the countries it is first escalated to the Neutral Expert who is appointed by the World Bank.

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 initiatives was announced during the QUAD 2024 summit?

1. Quad Cancer Moonshot
2. Maritime Initiative for Training in the Indo-Pacific (MAITRI)
3. Quad-at-Sea Ship Observer Mission
4. The Quad Investors Network (QUIN)

Select the correct answer using the code given below:

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

13. Which of the following countries are members of Indo-Pacific Economic Framework for Prosperity (IPEF)?

1. India
2. Australia
3. China
4. Indonesia
5. Singapore

Select the correct answer using the code given below:

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

14. With reference to the Maritime Initiative for Training in the Indo-Pacific (MAITRI), Which of the following statements is/are correct?

1. It is an initiative taken in the QUAD 2024 summit.
2. India will host the first MAITRI workshop in 2025.

Select the correct answer using the code given below:

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

15. With reference to the Coalition for Disaster Resilient Infrastructure (CDRI), which of the following statements is/are correct?

1. CDRI was launched by India at the UN Climate Action Summit in 2023 to promote disaster management for small-scale industries.
2. Its headquarter is located in Geneva, Switzerland.

Select the correct answer using the code given below:

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

16. What is the term duration for a non-permanent member of the United Nations Security Council?

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

17. Which of the following countries are members of the Mineral Security Partnership (MSP)?

1. India
2. Australia
3. China
4. USA
5. Canada

Select the correct answer using the code given below:

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

18. Which of the following statements is/are correct regarding the Asian Infrastructure Investment Bank (AIIB)?

1. AIIB was established in 2016 with its headquarters in Shanghai, China.
2. China holds the largest voting share in AIIB, followed by India and Russia.
3. AIIB was granted Permanent Observer status in the United Nations General Assembly in 2018.
4. AIIB's mission is to finance infrastructure projects only within Asia.

Choose the correct option using the codes given below

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

19. Consider the following statements with reference to the Group of Twenty (G20):

1. It was formed in 1999, in the wake of the Asian financial crisis.
2. The Group does not have a permanent secretariat.

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. The 'Ezulwini Consensus' and the 'Sirte Declaration' sometimes appeared in the news, is primarily in the context of:

- (a) Climate Change (b) UNSC Reform
(c) Gender Equality (d) Nuclear Disarmament

21. With reference to the International Monetary Fund (IMF), which of the following statements is/are correct?

1. The IMF was established in 1944 in the aftermath of the Great Depression of the 1930s.
2. It is the lender of last resort to governments of countries that had to deal with severe currency crises.

Select the correct answer using the code given below:

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

22. Which among the following are the International Monetary Fund (IMF) Lending Mechanisms?

1. Extended Fund Facility (EFF)
2. Rapid Financing Instrument (RFI)
3. Poverty Reduction and Growth Trust (PRGT)
4. Flexible Credit Line (FCL) and Precautionary Liquidity Line (PLL)

3. (c)

Statement 1 is correct: The Eastern Economic Forum (EEF) is an initiative launched by Russia in 2015 to promote the economic development of its Far East region. The forum seeks to attract investment, particularly from countries in the Asia-Pacific region, and foster international cooperation in sectors such as energy, transportation, natural resources, and infrastructure.

Statement 2 is correct: India has been an active participant in the EEF. India's involvement focuses on enhancing cooperation in critical areas like energy (particularly oil and gas), infrastructure, and natural resource development. India and Russia have been working together to explore opportunities for Indian companies to invest in Russia's Far East, aligning with the forum's objectives of economic collaboration.

4. (d)

In News: The Union Minister of Commerce & Industry stated that the India-Middle East-Europe Economic Corridor (IMEC) can add to India's maritime security and faster movement of goods between Europe and Asia.

Statement 1 is correct: IMEC was announced on the sidelines of the G20 summit, for integration of Asia, Europe and the Middle East.

Statement 2 is correct: IMEC includes railroad, ship-to-rail, and road transport networks.

Statement 3 is correct: The corridor has an East Corridor (India-Gulf) and Northern Corridor (Gulf-Europe).

Statement 4 is not correct: China is not a member; instead, members include India, European Union, France, Germany, Italy, Saudi Arabia, UAE, and the US.

5. c

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

- **Egypt, Ethiopia, Iran, and the United Arab Emirates** have joined BRICS as new full members this year.
- The term was originally coined by economist **Jim O'Neill in 2001.**
- **Origin:** As a formal grouping, BRIC started after the meeting of the Leaders of Russia, India and China in St. Petersburg on the margins of the **G8 Outreach Summit in 2006.**

6. (b)

Context: The Indian External Affairs Minister held a series of bilateral meetings with foreign ministers from Gulf Cooperation Council (GCC) countries and Brazil on the sidelines of the inaugural India-GCC Foreign Ministers' meeting in Riyadh (Saudi Arabia).

Gulf Cooperation Council (GCC)

- The GCC is a political, economic, social, and regional organisation according to its charter.
- The GCC was established on 4 February 1981 and held its first summit meeting on 25 May 1981 in Abu Dhabi, United Arab Emirates.
- **Member States:** Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates.

7. (c)

Context

- Nepal has become the latest (101st) country to join the International Solar Alliance (ISA) as a full member.

International Solar Alliance (ISA)

- It was jointly launched by **India and France** during the 21st Conference of Parties (COP21) to the UNFCCC which was held in Paris in 2015. It is **Headquartered** in Gurugram (Haryana).
- **The ISA aims** to contribute to the implementation of the Paris Climate Agreement through the rapid and massive deployment of solar energy.
- **Members:** At present, **119 countries** are signatories to the ISA Framework Agreement, of which **101 countries** have submitted the necessary instruments of ratification to become full members of the ISA.
 - **Paraguay** has joined as the **100th** full member of the International Solar Alliance.

8. (d)

In News : FATF is considering enhanced disclosure norms for online wire transactions, particularly cross-border transactions, including those involving credit cards.

Statement 1 is not correct : The Financial Action Task Force (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.

Statements 2 and 3 are correct : The FATF was given responsibility to examine money laundering techniques and trends, review the action already taken at a national or international level, and to set out measures needed to **combat money laundering**. In 2001, the FATF expanded its mandate to also **combat terrorist financing**.

- Since 2019, the FATF has had an open-ended mandate, after originally operating under fixed-term
- **India became a member of FATF in 2010.**

9. (a)

International Civil Aviation Organization (ICAO)

- **Established:** 1947, by the Chicago Convention (1944).
- **Headquarters:** Montreal, Canada.
- **Functions:**
 - Ensures safe and efficient international air transport.
 - Promotes regional and international agreements to liberalize aviation markets.
 - Facilitates cooperation and discussions among its 193 member states.
 - Develops legal frameworks for aviation law and standards.
 - ICAO is **not responsible for regulating military aviation**.

10. (c)

India has launched Operation Sadbhav to provide **humanitarian assistance and disaster relief (HADR) to Laos, Myanmar and Vietnam**.

- **Laos, Myanmar and Vietnam** have been hit by **severe flooding caused by Typhoon Yagi**.
- Operation Sadbhav is part of India's broader effort to contribute to HADR within the ASEAN (Association of Southeast Asian Nations) region, in line with its longstanding '**Act East Policy**'.
- **Typhoon Yagi** has been termed the **strongest tropical cyclone** that has hit Asia in 2024.

11. (a)

Statement 1 is correct: It governs the **management and use of the Indus River system**.

- **Water Allocation:** The treaty allocates the waters of the **three eastern rivers (Beas, Ravi, and Sutlej) to India** and the **three western rivers (Indus, Chenab, and Jhelum) to Pakistan**.

- The treaty gave India about **30% of the water** carried out by the Indus Rivers System while **Pakistan got 70%** of the waters.

Statement 2 is not correct: Dispute Resolution: Provisions are included for addressing disputes, primarily through consultation and negotiation.

- According to the treaty, there is a **sequential, three-level mechanism** where disputes are **first decided at the level of the Indus Commissioners** of the two countries, then escalated to the **Neutral Expert** who is appointed by the **World Bank**, and only then escalated to the Hague-based Permanent Court of Arbitration (PCA).

12. (a)

key Initiatives of QUAD 2024

- **Quad Cancer Moonshot**, a groundbreaking partnership to save lives in the Indo-Pacific region.
- **Coast Guard Cooperation:** The First-ever “**Quad-at-Sea Ship Observer Mission**” in **2025** to improve interoperability and advance maritime safety between our Coast Guards across the Indo-Pacific.
- The “**Quad Ports of the Future Partnership**” will harness the Quad’s collective expertise to support sustainable and resilient port infrastructure development across the Indo-Pacific.
- The **Maritime Initiative for Training in the Indo-Pacific**” (**MAITRI**) to enable regional partners to monitor and secure their waters, enforce their laws, and deter unlawful behavior.
 - India will host the first MAITRI workshop in **2025**.

Important outcomes of 2023 QUAD summits

- **Open Radio Access Network (RAN) and 5G:** In 2023, Quad partners announced the first-ever Open RAN deployment in the Pacific, to support a secure, resilient, and interconnected telecommunications ecosystem.
- The **Quad Investors Network (QUIN)** a nonprofit initiative launched at the 2023 Quad Leaders’ Summit aims to accelerate investments in critical and emerging technologies across the Indo-Pacific region.

13. (d)

Indo-Pacific Economic Framework for Prosperity (IPEF)

- **IPEF was launched in 2022 at Tokyo, Japan**, comprising **14 countries** – Australia, Brunei, Fiji, India, Indonesia, Japan, Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, Vietnam and USA.
- **The IPEF seeks** to strengthen economic engagement and cooperation among partner countries with the goal of advancing growth, economic stability and prosperity in the region.
- The IPEF block together, accounts for **40 percent** of the world’s economic output and **28 percent** of trade.

14. (c)

key Initiatives of QUAD 2024

- The **Maritime Initiative for Training in the Indo-Pacific**” (**MAITRI**) to enable regional partners to monitor and secure their waters, enforce their laws, and deter unlawful behavior.
 - India will host the first MAITRI workshop in **2025**.
- **Quad Cancer Moonshot**, a groundbreaking partnership to save lives in the Indo-Pacific region.
- **Coast Guard Cooperation:** The First-ever “**Quad-at-Sea Ship Observer Mission**” in **2025** to improve interoperability and advance maritime safety between our Coast Guards across the Indo-Pacific.

- The “Quad Ports of the Future Partnership” will harness the Quad’s collective expertise to support sustainable and resilient port infrastructure development across the Indo-Pacific.

15. (d)

Both the statements are not correct:

Coalition for Disaster Resilient Infrastructure (CDRI)

- The Coalition for Disaster Resilient Infrastructure (CDRI) is a global initiative **launched by India in 2019** at the UN Climate Action Summit.
- Its primary goal is to promote the resilience of infrastructure systems to the increasing risks posed by climate change and natural disasters.
- The initiative involves a partnership between nations, UN agencies, multilateral development banks, and the private sector.
- Its **secretariat is located in New Delhi, India.**

16. (b)

United Nations Security Council (UNSC)

- It is one of the **UN’s six main organs** and is aimed at maintaining international peace and security.
- **Membership:** The Council is composed of 15 Members.
 - **Five Permanent members with veto power:** China, France, Russia, the United Kingdom and the United States.
 - Ten Non Permanent members
- Each year the **General Assembly elects five non-permanent members** (out of 10 in total) for a **two-year term.**

17. (d)

Mineral Security Partnership (MSP)

- **It is a US-led collaboration that** would focus on the supply chains of minerals such as Cobalt, Nickel, Lithium, and also the 17 ‘rare earth’ minerals.
- **Members:** Australia, Canada, Estonia, Finland, France, Germany, India, Italy, Japan, the Republic of Korea, Norway, Sweden, the UK, U.S., and the EU.
 - **India** was inducted to the MSP in **2023.**
- **Mandate:** To catalyze public and private investment in critical mineral supply chains globally. It directly addresses four major critical minerals challenges:
 - Diversifying and stabilizing global supply chains;
 - Investment in those supply chains;
 - Promoting high environmental, social, and governance standards in the mining, processing, and recycling sectors; and
 - Increasing recycling of critical minerals.

18. (b)

Asian Infrastructure Investment Bank (AIIB)

- **Establishment:** The AIIB is a multilateral development bank that was established in 2016.
- **Mission:** The AIIB aims to finance infrastructure for tomorrow, focusing on sustainable development in Asia and beyond.

- **Headquarters:** Beijing, China.
- **Membership:** As of now, the AIIB has 110 members, 96 full members and 14 prospective members.
- **Key Shareholders:**
 - China holds the largest voting share, accounting for 26.6%, and has veto power.
 - India follows with 7.6% of the voting share.
 - Russia holds 6% of the voting share.
- **Recognition by the UN:** In 2018, AIIB was granted Permanent Observer status in the deliberations of the United Nations General Assembly and the UN Economic and Social Council.

19. (c)

Both the statements are correct.

- The Group of Twenty (G20) was founded in 1999 after the **Asian financial crisis** as a forum for the Finance Ministers and Central Bank Governors to discuss global economic and financial issues.
- The group **does not** have a permanent secretariat and is supported by the previous, current, and future holders of the presidency, known as the **troika**.

20. (b)

In News: Recently, the Foreign Ministers of the '**Group of Four**' countries—India, Brazil, Germany, and Japan met on the margins of the 79th Session of the UNGA to assess the state of play and discuss prospects for a reform of the United Nations Security Council (UNSC).

- The G4 Ministers emphasise the **need to expand both permanent and non-permanent categories** of UNSC membership. By doing so, they aim to enhance the participation of developing countries and those significantly contributing to international peace and security. This expansion would make the Council more representative and legitimate.
- G4 countries highlight the importance of better representation for various regions. **Africa, Asia-Pacific, and Latin America** and the **Caribbean** deserve stronger voices in the UNSC.
 - The G4 reaffirms its support for the **Common African Position (CAP) based on the Ezulwini Consensus and the Sirte Declaration**.

21. (c)

Context

- The International Monetary Fund's board (IMF) approved a **\$7 billion Extended Fund Facility (EFF)** for Pakistan, providing a critical boost to the country's struggling economy.

International Monetary Fund (IMF)

- The IMF was established in **1944** in the aftermath of the Great Depression of the 1930s.
- The organization is currently composed of **190 member** countries.
 - Each member has representation on the IMF's executive board in proportion to its financial importance.
- The primary goal of the IMF back then was to bring about international economic coordination to **prevent competing currency devaluation** by countries trying to promote their own exports.
- Eventually, the IMF evolved to be a **lender of last resort** to governments of countries that had to deal with severe currency crises.

22. (d)

Context

- The International Monetary Fund's board (IMF) approved a **\$7 billion Extended Fund Facility (EFF)** for Pakistan, providing a critical boost to the country's struggling economy.

IMF Lending Mechanisms

- **Stand-By Arrangements (SBA):** This is intended to address short-term balance of payments problems.
 - Typically lasts **12 to 24 months** and involves conditions such as fiscal consolidation, monetary tightening, and structural reforms.
- **Extended Fund Facility (EFF):** This is used for countries with prolonged structural imbalances or deeper economic problems, as in the case of Pakistan.
 - It typically covers a **longer time horizon (up to four years)** and focuses on medium- to long-term reforms.
 - The conditions focus on structural reforms, fiscal policies, and debt sustainability.
- **Rapid Financing Instrument (RFI):** It is used for urgent balance of payments needs due to economic shocks, natural disasters, or conflict without the need for a fully-fledged economic program.
- **Poverty Reduction and Growth Trust (PRGT):** Concessional lending aimed at low-income countries to support poverty reduction and growth programs.
- **Flexible Credit Line (FCL) and Precautionary Liquidity Line (PLL):** These are aimed at countries with relatively strong economic fundamentals but in need of precautionary funding to guard against external shocks.

23. (b)

Option b is correct: The GloBE Network was launched under the G20 framework to combat transnational corruption and is supported by the UNODC, not the World Bank. It has 121 member countries.

SCIENCE & TECHNOLOGY

1. Consider the following statements with reference to the Poliomyelitis (polio):
1. It is a highly infectious bacterial disease that largely affects children under 5 years of age.
 2. The disease does not spread from person to person.
- 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. With reference to the Parkinson's Disease, consider the following statements:
1. It is a neurodegenerative disorder that disrupts the brain's ability to produce dopamine.
 2. The disease affects the older people only.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
3. Which of the following statements regarding mitochondria is/are correct?
1. Mitochondria are membrane-bound organelles found in eukaryotic cells.
 2. They are responsible for generating most of the cell's supply of adenosine triphosphate (ATP), which is used as a source of chemical energy.
 3. Mitochondria have their own DNA, separate from the nuclear DNA.
 4. The number of mitochondria in a cell can vary depending on the cell's energy needs.
- Select the correct answer using the code given below.
- (a) 1 and 2 only (b) 2 and 3 only
(c) 1, 2, and 4 only (d) 1, 2, 3, and 4
4. With reference to the micronutrients, consider the following statements:
1. Vitamins A, D, E, and K are the Fat-Soluble Vitamins.
 2. Calcium, potassium, and magnesium are the trace minerals.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
5. With reference to the Green Hydrogen, consider the following statements:
1. It refers to hydrogen that is produced using renewable energy sources through electrolysis.
 2. Electrolysis involves splitting water (H_2O) into hydrogen (H_2) and oxygen (O_2) using an electric current.
- 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 Aditya-L1 mission, consider the following statements:
1. The mission is placed at the Lagrangian point L1, allowing continuous observation of the Sun.
 2. All seven payloads on Aditya-L1 are designed to carry out in-situ studies of particles and fields.
 3. One of the mission's objectives is to study coronal mass ejections (CMEs) and solar flares.
- Which of the above statements is/are correct?
- (a) 1 and 2 only (b) 1 and 3 only
(c) 2 and 3 only (d) All of the above
7. Which of the following statements is correct with reference to Quantum gravity?
- (a) It states that a body immersed in a fluid is subjected to an upwards force equal to the weight of the displaced fluid
 - (b) It seeks to describe gravity according to the principles of quantum mechanics
 - (c) It clarifies that a body at rest will remain at rest unless an outside force acts on it.
 - (d) It highlights that gravitational and inertial forces are of a similar nature and often indistinguishable.
8. Alzheimer's disease is classified under which of the following categories of disorders?
- (a) Musculoskeletal diseases (b) Infectious diseases
 - (c) Neurodegenerative diseases (d) Autoimmune diseases
9. With reference to the Mercury, consider the following statements:
1. It is the hottest planet in the solar system.
 2. Mercury doesn't have any moons.
- 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. 'BepiColombo,' recently seen in the news, is a joint mission of
- (a) NASA and ESA (b) JAXA and NASA
 - (c) NASA and ISRO (d) ESA and JAXA
11. With reference to Semiconductors, consider the following statements:
1. These are materials with electrical properties that fall between those of conductors and insulators.
 2. In a process called doping, small amounts of impurities are added to these pure elements, causing large changes in the conductivity of the material.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
12. Which of the following is a key objective of the Polaris Dawn mission?
- (a) To conduct the first private spacewalk
 - (b) To launch the first commercial satellite to Mars
 - (c) To test further new lunar landing technologies
 - (d) To perform the first manned mission to the Mars

- 13.** Which among the following diseases are caused due to genetic disorder?
1. Sickle Cell Anemia
 2. Down syndrome
 3. Hemophilia
 4. Cholera
- Select the correct answer using the code given below:
- (a) 1, 2 and 3 only (b) 1 and 3 only
(c) 2, 3 and 4 only (d) 1, 2, 3 and 4
- 14.** 'Bavarian Nordic's vaccine', recently seen in the news, is related to which of the following diseases?
- (a) Chandipura virus (b) Mpox
(c) Lumpy skin disease (d) Tuberculosis
- 15.** Which of the following statements about phosphoric acid (H_3PO_4) is correct?
- (a) Phosphoric acid is primarily used as a key ingredient in urea production.
(b) India imports phosphoric acid mainly from Morocco, Senegal, Jordan, and Tunisia.
(c) Phosphoric acid is an organic acid used in the production of polishes and detergents.
(d) Phosphoric acid is manufactured from sulfuric acid and limestone.
- 16.** Consider the following statements with reference to the pager devices:
1. Pagers are small electronic devices that can receive and display numeric or text messages.
 2. Unlike cell phones, pager devices depend on radio signals to transmit information.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 17.** Which of the following statements about signal modulation is/are correct?
1. Modulation is the process of varying a carrier signal in order to transmit information.
 2. In Amplitude Modulation (AM), the frequency of the carrier wave is varied according to the message signal.
 3. Frequency Modulation (FM) is more resistant to noise compared to Amplitude Modulation (AM).
- Select the correct answer using the code given below:
- (a) 1 and 2 only (b) 1 and 3 only
(c) 2 and 3 only (d) 1, 2, and 3
- 18.** Consider the following statements with reference to Venus:
1. It is the hottest planet in our solar system.
 2. Venus Orbiter Mission will be India's first interplanetary mission.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- 19.** Consider the following statements:
1. The first module of Bharatiya Antariksh Station will be launched in 2028 and by 2035 the fully operational indigenous space station will be created.
 2. Currently, the International Space Station is the only operational space station.

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 with reference to the Square Kilometer Array (SKA) project:

1. It is not a single telescope but an array of thousands of antennas, to be installed in remote radio-quiet locations.
2. Organisations from 5 countries are members of the SKA project, including 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

21. Consider the following statements regarding Infrasound:

1. Infrasound refers to sound waves with frequencies below 20 Hz, which are generally not detectable by the human ear.
2. Infrasound can be used to detect natural phenomena like earthquakes and volcanic explosions, as well as man-made events like nuclear explosions.

Which of the above statements is/are correct?

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

22. Which of the following statements is correct regarding Dengue?

- (a) It is also known as break-bone fever.
- (b) It is more common in tropical and subtropical climates.
- (c) Dengue is treated with pain medicine as there is no specific treatment currently.
- (d) All of the above.

23. Consider the following statements with reference to the Body Roundness Index (BRI):

1. BRI was developed by Diana Thomas in 2013.
2. BRI mathematically quantifies body fat levels by looking at height and weight.

Which of the statements given above is/are correct?

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

24. With reference to the Noncommunicable Diseases (NCDs), consider the following statements:

1. These are the result of a combination of genetic, physiological, environmental and behavioural factors.
2. Ageing, rapid unplanned urbanization and globalization are among the factors contributing to the rise of NCDs.

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. Consider the following statements

1. Plages are bright regions in the chromosphere.
2. Network cells are slightly larger than sunspots and have weaker magnetic fields.

Which of the statements given above is/are correct?

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

26. Meta recently unveiled Orion, a prototype of Augmented Reality (AR) glasses. Which of the following statements regarding Augmented Reality (AR) and Virtual Reality (VR) is/are correct?

1. Augmented Reality (AR) integrates digital information into the physical world in real time, whereas Virtual Reality (VR) creates a completely simulated environment.
2. AR devices are typically equipped with cameras, sensors, and displays to capture and overlay digital content onto real-world surroundings.
3. In both AR and VR, the physical world is completely shut out during user interaction.

Select the correct answer using the code given below:

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

27. Consider the following statements:

1. In cadaver donation, a person donates his entire body to science instead of individual organs after death.
2. The world's first successful organ transplant was kidney transplantation, undertaken at AIIMS, New Delhi.

Which of the statements given above is/are correct?

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

28. Phobos and Deimos are the moons of which of the following planets?

- (a) Venus (b) Jupiter
(c) Mars (d) Saturn

29. Which of the following statements is not correct regarding Marburg Viral Disease?

- (a) It is a severe, highly infectious hemorrhagic fever similar to Ebola that belongs to the filovirus family.
- (b) The natural host of the Marburg virus are the African Green Monkeys.
- (c) The virus was first identified in 1967 in Germany.
- (d) There are currently no approved vaccines or antiviral treatments.

EXPLANATIONS

1. (d)

Context: In West Asia, UN agencies in the Gaza Strip have launched an ambitious campaign to vaccinate 640,000 children against polio.

Poliomyelitis (polio)

- It is a highly infectious **viral disease** that largely affects children under 5 years of age.
- The virus is transmitted by **person-to-person** spread mainly through the faecal-oral route or, less frequently, by a common vehicle (e.g. contaminated water or food) and multiplies in the intestine, from where it can invade the nervous system and cause paralysis.

2. (a)

Statement 1 is correct: Parkinson's Disease (PD) is a **neurodegenerative disorder** that disrupts the brain's ability to produce **dopamine**, a vital neurotransmitter responsible for movement control.

- PD gets worse over time. There is no cure, but therapies and medicines can reduce symptoms.

Statement 2 is not correct: The disease usually occurs in older people, but younger people can also be affected. Men are affected more often than women.

3. (d)

Statement 1 is correct: Mitochondria are indeed membrane-bound organelles present in the cytoplasm of almost all eukaryotic cells.

Statement 2 is correct: Mitochondria are often referred to as the “powerhouses of the cell” because they are the primary site of cellular respiration, a process that breaks down nutrients to produce ATP, the main energy currency of cells.

Statement 3 is correct: Mitochondria possess their own DNA, distinct from the nuclear DNA. This mitochondrial DNA is maternally inherited.

Statement 4 is correct: The number of mitochondria within a cell can vary significantly depending on the cell’s energy requirements. Cells with high energy demands, such as muscle cells, tend to have more mitochondria.

4. (a)

Statement 1 is correct: Micronutrients are vitamins and minerals needed by the body in very small amounts.

- **Vitamins** are organic compounds that are often categorized into two groups:
 - **Water-Soluble Vitamins:** These include Vitamin C and the B vitamins (like B12, B6, folate). They dissolve in water and are typically not stored in the body, so regular intake through diet is necessary.
 - **Fat-Soluble Vitamins:** These include **Vitamins A, D, E, and K**. They are absorbed along with dietary fat and can be stored in the body’s fatty tissues and liver.

Statement 2 is not correct: Minerals are inorganic elements that are also classified into:

- **Major Minerals:** Such as **calcium, potassium, and magnesium**, which are needed in larger amounts.
- **Trace Minerals:** Such as **iron, zinc, copper, and selenium**, which are needed in smaller amounts but are still vital for health.

5. (c)

Both the statements are correct: Green hydrogen refers to hydrogen that is produced **using renewable energy sources**, such as wind, solar, or hydropower, through a process called **electrolysis**.

- **Electrolysis involves** splitting water (H₂O) into hydrogen (H₂) and oxygen (O₂) using an electric current.
- When this electricity comes from renewable sources, the hydrogen produced is considered “green” because the overall process has a **minimal environmental impact**.
- **Benefit:** It is a clean burning element that can decarbonise a range of sectors including iron and steel, chemicals, and transportation.
 - Hydrogen can be stored for long periods of time which can be used to produce electricity using fuel cells.

6. (b)

Statement 1 is correct: Aditya-L1 is positioned at the Lagrangian point L1, which is about 1.5 million kilometers from Earth. The significance of this point is that it allows the spacecraft to have an uninterrupted view of the Sun without any eclipses or occultations. This positioning minimizes

fuel consumption, as the gravitational forces between the Earth and the Sun balance each other, allowing the spacecraft to remain stable with minimal adjustments.

Statement 2 is not correct: While Aditya-L1 has 7 payloads, only 3 payloads are designed for in-situ studies of particles and fields at the L1 point. These payloads study the solar wind and interplanetary magnetic fields. The remaining 4 payloads are designed to directly observe the Sun and study its outer layers, including the corona and chromosphere. Hence, this statement is incorrect because not all payloads are focused on in-situ studies.

Statement 3 is correct: One of the primary objectives of the Aditya-L1 mission is to study solar phenomena like coronal mass ejections (CMEs) and solar flares. CMEs are massive bursts of solar wind and magnetic fields that can have significant effects on Earth's space weather. Understanding these processes helps in predicting solar activity and mitigating its effects on space-based technology and Earth's atmosphere.

7. (b)

In News : Researchers are investigating quantum gravity, aiming to unify classical gravitation and quantum mechanics.

- Quantum gravity (QG) is a field of theoretical physics that seeks to **describe gravity according to the principles of quantum mechanics** particularly in environments where both gravitational and quantum effects are significant, like near black holes or neutron stars.

8. (c)

Context

- The researchers have found that Excessive exposure to light pollution at night may raise the risk of developing Alzheimer's disease.

Alzheimer's disease

- Alzheimer's is the most common **type of dementia**, an umbrella term for a range of conditions that involve the loss of cognitive functioning.
- **Cause:** It involves the **formation of plaques and tangles in the brain**, and the accelerated aging of certain **neurons** concerned with storage and processing of memory.
- **Early symptoms** include forgetfulness and as the illness progresses, patients become more confused, lose their way around familiar places, and have difficulties with planning and completing simple tasks.

9. (b)

Statement 1 is not correct: Mercury is the **closest planet** to the Sun, and the smallest planet in the solar system - only slightly larger than Earth's Moon.

- Despite its proximity to the Sun, **Mercury is not the hottest planet** in the solar system – it is Venus.

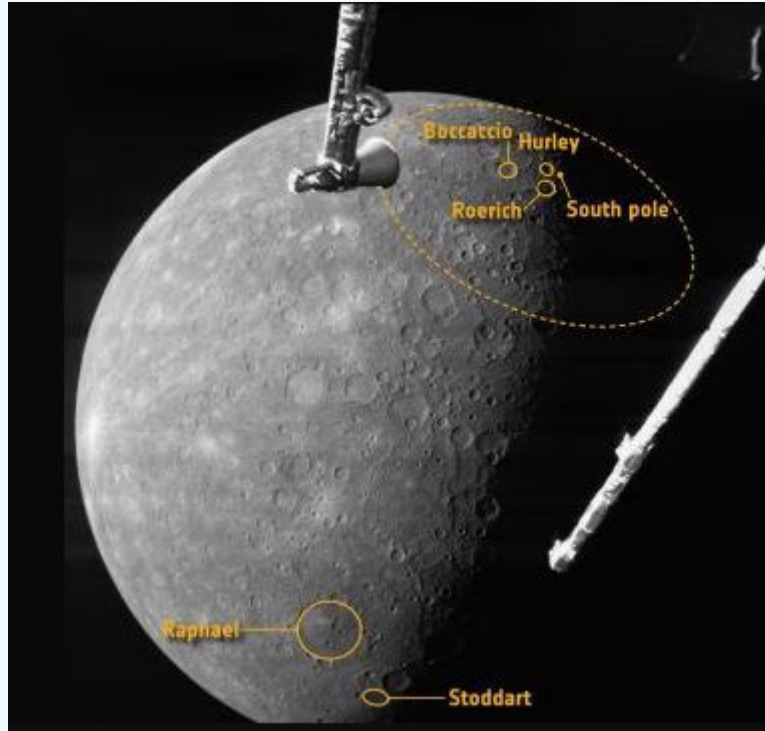
Statement 2 is correct: Mercury's exosphere is composed **mostly of oxygen, sodium, hydrogen, helium, and potassium.**

- Mercury **doesn't have any moons.**

10. (d)

Context

- The spacecraft, BepiColombo, gave scientists their first **clear view of Mercury's south pole.**
 - It also captured several of the **planet's craters**, including those with unusual rings of peaks within the basin's rim.



BepiColombo

- It is a joint mission of the **European Space Agency (ESA)** and the **Japan Aerospace Exploration Agency (JAXA)**, launched in **2018**.
- It will go into orbit around Mercury in **2026**, about a year after its original arrival time.
 - The delay was prompted by efforts to overcome problems with the spacecraft’s thrusters.
- It has **two orbiters**, one more focused on Mercury’s landscape and the other collecting data about its surrounding space environment.
 - Scientists hope to use the BepiColombo mission to learn about the **planet’s origins and evolution** by studying its composition, geology and magnetic field.

11. (c)

- **Both the statements are correct:** Semiconductors are **materials with electrical properties** that fall between those of conductors (like metals) and insulators (like rubber).
 - They have a unique ability **to conduct electricity** under certain conditions while acting as insulators under others.
- In a process called **doping**, small amounts of impurities are added to these pure elements, causing large changes in the **conductivity** of the material.
- **Applications:** Semiconductors are used in a vast range of **electronic devices**.
 - **Transistors**, which are fundamental components of modern electronic circuits, rely on semiconductor materials.
 - They act as **switches or amplifiers** in everything from computers to cell phones.
 - Semiconductors are also used in **solar cells, LEDs, and integrated circuits**.

12. (a)

In News: The Polaris Dawn mission, led by Jared Isaacman and SpaceX, is making history by attempting the first private spacewalk.

About

- Spacewalks, also called extravehicular activities (EVAs), involve astronauts leaving their spacecraft to conduct experiments, repairs, or tests.

- The first spacewalk was done by Soviet cosmonaut Alexei Leonov in 1965. Today, spacewalks are crucial for advancing space science and technology.
- The Polaris Dawn mission will test new spacesuits designed by SpaceX to protect astronauts from high radiation levels encountered in the **Van Allen Belts**.

Van Allen Belts

- The Van Allen Belts are two regions of charged particles that encircle Earth, held in place by the planet's magnetic field. These belts were first discovered in 1958 by American physicist James Van Allen.
- They form part of the magnetosphere, a protective shield around Earth that deflects harmful solar radiation and cosmic rays.

13. (a)

- **Sickle cell disease** is a hereditary disease caused by mutations in one of the genes that encode the hemoglobin protein.
 - If both parents carry the sickle cell trait, the child has significant chances of being born with the disease.
- **Down Syndrome:** Caused by an extra copy of chromosome 21 (trisomy 21), leading to developmental delays.
- **Hemophilia:** A blood clotting disorder caused by mutations on the chromosome.
- **Cholera** is an acute diarrheal illness caused by infection of the intestines with the **bacterium Vibrio cholerae**.

14. (b)

Context: The World Health Organisation has recently cleared Bavarian Nordic's vaccine as the first shot against Mpox.

About

- Mpox is a rare zoonotic (disease that spreads from animals to humans) caused by the monkeypox virus which belongs to the Orthopoxvirus genus in the Poxviridae family.
- Other diseases caused by viruses from this family include smallpox, cowpox, and more.
- Mpox virus is transmitted to humans through physical contact with someone infectious – it can happen through direct contact with infected blood, fluids, or skin or mucus lesions (damaged or broken areas).
- The virus enters the body through broken skin, mucosal surfaces (oral, pharyngeal, ocular, genital, or anorectal), or the respiratory tract.
- Mpox can also spread through contact with contaminated materials, or infected animals from bites or scratches, or through activities like hunting, skinning, trapping, cooking, playing with carcasses, or eating animals.

15. (b)

About Phosphoric Acid

- Phosphoric acid (H_3PO_4) is a weak acid commonly used in various industrial and consumer applications. It is manufactured from rock phosphate ore.
- It is used in food additives, fertilizers, and metal treatment. It can remove rust and protect metals from corrosion.
- It's the key ingredient in di-ammonium phosphate (DAP). DAP is India's second most consumed fertilizer after urea.

- India primarily imports phosphoric acid from **Jordan, Morocco, Senegal, and Tunisia.**

16. (c)

Context: Nearly 3,000 people were injured after pagers used by Hezbollah — the Shiite Islamic militant group based in Lebanon — exploded across the country simultaneously in an apparently coordinated attack.

What are pager devices?

- Pagers are small electronic devices that can receive and display **numeric or text messages.**
- Unlike cell phones, pager devices depend on **radio signals** to transmit information.
- They were popular before cell phones took over, and were being used by Hezbollah **to evade** Israeli tracking of their movements.

17. (b)

Statement 1 is correct: Modulation is indeed the process of varying a carrier signal (such as its amplitude, frequency, or phase) to transmit information.

Statement 2 is not correct: In Amplitude Modulation (AM), the amplitude of the carrier wave is varied according to the message signal, not the frequency.

Statement 3 is correct: Frequency Modulation (FM) is more resistant to noise than Amplitude Modulation (AM), making it preferable for high-quality signal transmission.

18. (a)

Context: The union cabinet has approved the development of **Venus Orbiter Mission (VOM)**, which will be **India's second interplanetary mission** after the Mars Orbiter Mission, launched in 2013.

About

- Venus is the second planet from the Sun, and the sixth largest planet. It's the **hottest planet** in our solar system.
- Venus is often called "**Earth's twin**" because they're similar in size and structure.

19. (a)

Context: The union cabinet chaired by Prime Minister Narendra Modi has approved the building of the first unit of the Bharatiya Antariksh Station (BAS).

About

- The first module of BAS will be **launched in 2028** and by 2035 the fully operational indigenous space station will be created.
- The BAS will be placed in **low earth orbit**, at 400 km above the earth's surface.
- The **52-tonne space station** will serve as a research platform for Indian astronauts and scientists to conduct experiments in microgravity, astronomy and Earth observation, and will allow astronauts to stay in orbit for **15-20 days.**

Do you know?

- Currently, there are only **two** operational space stations – the **International Space Station (ISS)**, developed in cooperation by the United States, Russia, Japan, Europe and Canada; and China's **Tiangong Space Station (TSS).**

20. (a)

Context: Square Kilometer Array (SKA), the world's largest radio telescope in the making, has carried out its first observations, signalling that at least a part of the yet-to-be-completed facility has become functional.

About

- It is **not a single telescope** but an array of thousands of antennas, to be installed in remote **radio-quiet locations** in South Africa and Australia.
- The array in South Africa is named **SKA-Mid** while the one in Australia is called **SKA-Low**, the names reflecting the frequency ranges they operate in.
- **Headquarters:** United Kingdom
- Organisations from **14 countries are members** of the SKA project– Australia, Canada, China, France, Germany, **India**, Italy, New Zealand, Spain, South Africa, Sweden, Switzerland, The Netherlands and the United Kingdom.

21. (c)

In News: The Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) is conducting a workshop for scientists on the application of infrasound in monitoring nuclear tests in collaboration with the industry.

Statement 1 is correct: Infrasound has a frequency range below 20 Hz, making it inaudible to the human ear.

Statement 2 is correct: Infrasound is used to detect both natural phenomena like earthquakes and volcanic explosions, as well as man-made events such as nuclear explosions.

22. (d)

Context: As cities across India report a surge in dengue cases, a record number of cases have been reported around the world this year with Brazil and other South American countries worst affected.

About

- Dengue (**break-bone fever**) is a viral infection that spreads from mosquitoes to people. It is more common in **tropical and subtropical climates**.
- Most people who get dengue will not have symptoms. But for those who do, the most **common symptoms** are high fever, headache, body aches, nausea, and rash.
- Dengue is treated with pain medicine as there is **no specific treatment** currently.

23. (a)

Context: The body mass index has long been criticized as a flawed indicator of health and a replacement has been gaining support: the **body roundness index**.

What is Body Roundness Index (BRI)?

- BRI was developed by **Diana Thomas** in 2013.
- Instead of looking at height and weight, BRI mathematically quantifies body fat levels by looking at **height and waist** circumference.
- The scores usually range from **1 to 15**, with those having very high scores or very low scores (of over 6.9 or under 3.41) considered at the most risk for illnesses.

24. (c)

Both the statements are correct:

- NCDs, also known as chronic diseases, tend to be of long duration and are the result of a combination of **genetic, physiological, environmental and behavioural factors**.
- The main types of NCD are **cardiovascular diseases** (such as heart attacks and stroke), **cancers, chronic respiratory diseases** (such as chronic obstructive pulmonary disease and asthma) and diabetes.

- The major NCDs share **four behavioral risk factors**- unhealthy diet, lack of physical activity, and use of tobacco and alcohol.
- **Factors contributing to the rise of NCDs** also include **ageing, rapid unplanned urbanization and globalization**.
- NCDs including heart disease, stroke, cancer, diabetes and chronic lung disease, are collectively responsible for **74% of all deaths worldwide**.

25. (c)

Statements 1 and 2 are correct: Astronomers mapped the variation in the Sun's chromosphere rotation speed from the equator to the poles using 100 years of data from the Kodaikanal Solar Observatory.

- The Sun rotates at different speeds at different latitudes: the equator rotates faster (25 days) than the poles (35 days).
- This differential rotation is key to understanding the solar dynamo, the 11-year solar cycle, and solar magnetic storms.
- **Discovery:** Differential rotation was first discovered in the 19th century by Carrington, but earlier methods were limited in studying latitudes above 35 degrees.
- **Findings on Rotation Rates:** The rotation rate was faster at the equator (13.98 degrees/day) and slower towards the poles (10.5 degrees/day at 80 degrees latitude).
 - Both plages and network features showed similar rotation rates, suggesting a common origin possibly rooted deep inside the Sun.
- Plages are bright regions in the chromosphere, larger than sunspots, with weaker magnetic fields.
- Network cells are slightly larger than sunspots and have weaker magnetic fields, present continuously across the Sun's surface.

26. (b)

Statement 1 is correct: AR integrates digital elements into the physical world, whereas VR creates a fully immersive simulated environment, excluding the real world.

Statement 2 is correct: AR devices use cameras, sensors, and displays to capture and overlay digital information onto real-world surroundings.

Statement 3 is not correct: In AR, the physical world is not shut out; digital content is overlaid on the real world, unlike VR, where the real world is entirely replaced by a simulated environment.

27. (a)

Context: CPI (M) leader Sitaram Yechury, who died recently, donated his body to the All India Institute of Medical Sciences (AIIMS).

What are cadavers used for?

- In cadaver donation, a person donates his entire body to science instead of individual organs after death.
- Generally, cadavers are used to train doctors by helping them better understand human anatomy and practice surgery.
- Although dummies can be used for training, cadavers provide the most realistic experience of performing surgery on a human being.

Organ transplantation:

- The world's first successful organ transplant was kidney transplantation which was undertaken at the Peter Brigham Hospital in Boston in 1954.

- The **first kidney transplant in India** was performed in 1971 at the Christian Medical College, Vellore (Tamil Nadu).

28. (c)

Context: The recent study published in 'Science Advances' journal suggests that Mars' water may have vanished around 3.5 billion years ago when its carbon dioxide-rich atmosphere thinned out.

About: Mars

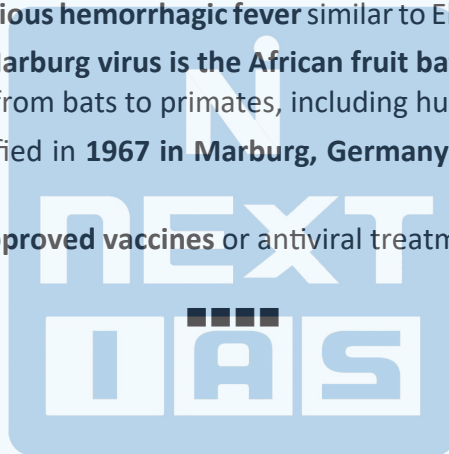
- Mars – the fourth planet from the Sun – is a dusty, cold, desert world with a very thin atmosphere.
- It is one of the most explored bodies in our solar system, and it's the only planet where humans have sent rovers to roam the alien landscape.
- It is frequently called the "Red Planet" because iron minerals in the Martian dirt oxidize, or rust, causing the surface to look red.
- Mars has two moons, **Phobos and Deimos**. Both are thought to be captured asteroids, or debris from early in the formation of our solar system. Phobos is the larger of Mars' two moons.

29. (b)

News: Many people have died in Rwanda following an outbreak of the **Marburg Viral Disease**.

About Marburg Viral Disease

- It is a severe, **highly infectious hemorrhagic fever** similar to Ebola belongs to the filovirus family.
- The natural host of the **Marburg virus is the African fruit bat**, which carries the pathogen. The virus can be transmitted from bats to primates, including humans.
- The virus was first identified in **1967 in Marburg, Germany**, after workers contracted it from infected green monkeys.
- There are currently **no approved vaccines** or antiviral treatments.



ENVIRONMENT & ECOLOGY

- Which one of the following 'alarmingly off-track' from Paris Agreement's 1.5°C goal emission targets?
 - China
 - European Union
 - United States of America
 - India
- Which of the following is a primary function of IndOBIS, the Indian regional node of the global Ocean Biodiversity Information System (OBIS)?
 - Monitoring pollution levels in Indian coastal waters
 - Providing free and open access to biodiversity and biogeographic data on marine life
 - Conducting marine archaeology in Indian Ocean territories
 - Regulating fishing activities in Indian Exclusive Economic Zone (EEZ)
- With reference to the Green Turtles, consider the following statements:
 - They are found mainly in tropical and subtropical waters.
 - They are listed as vulnerable on the IUCN Red List of Threatened Species.Which of the statements given above is/are correct?
 - 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
- Consider the following statements:
 - Teal carbon refers to carbon stored in non-tidal freshwater wetlands, including vegetation, microbial biomass, and dissolved organic matter.
 - India's first study on teal carbon is conducted at Keoladeo National Park (KNP) in Rajasthan.Which of the statements given above is/are correct?
 - Only 1
 - Only 2
 - Both 1 and 2
 - Neither 1 nor 2
- With reference to the Elongated Tortoise, which of the following statements is/are correct?
 - The species is endemic to the Western Ghats of India.
 - The IUCN Status of the species is critically endangered.Select the correct answer using the code given below:
 - 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
- With reference to the Salt Pans in India, consider the following statements:
 - They comprise parcels of low-lying lands where seawater flows in at certain times, and leaves behind salt and other minerals.
 - They are significant only for the salt extraction and natural gas exploration.
 - Maharashtra has the largest area of land as Salt Pans in India.

How many of the statements given above are correct?

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

7. With reference to Myristica Swamp Forests in India, consider the following statements:

1. Myristica swamp forests are found in the evergreen forests of the Western Ghats.
2. Myristica magnifica, an endangered species found in these forests, is native to the states of Tamil Nadu and Andhra Pradesh.
3. These forests play a significant role in ecosystem services like groundwater recharge, carbon sequestration, and flood control.

Which of the statements given above is/are correct?

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

8. Which of the following statements is incorrect with reference to Ozone?

- (a) Ozone is produced in the upper stratosphere by the action of UV rays on oxygen.
- (b) Ozone, with the chemical formula O_2 , is similar to breathable oxygen.
- (c) Naturally occurring ozone near the surface helps remove pollutants.
- (d) Ozone can oxidise sulphur dioxide present in the atmosphere to sulphur trioxide.

9. With reference to the Assam Cascade Frog, consider the following statements:

1. The Assam Cascade Frog is endemic to the Himalayan regions of India, Bangladesh, Bhutan, and Nepal.
2. It is considered an indicator species, meaning it reflects the environmental conditions of its habitat.
3. The Assam Cascade Frog is found exclusively in the plains of northern India.

Which of the statements given above is/are correct?

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

10. With reference to the Commons, consider the following statements:

1. It refers to resources that are not owned by any individual or group or the government, but belong to, and are shared by, the community as a whole.
2. Language, folk art or dance, local customs, and traditional knowledge are also termed as commons.
3. There are no international agreements for the governance of the commons currently.

How many of the statements given above are correct?

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

11. With reference to India's Renewable Energy Targets, consider the following statements:

1. India has a vision to achieve Net Zero Emissions by 2070.
2. Increasing renewable energy capacity to 500 GW by 2025.

3. Reducing emissions intensity of India's gross domestic product (GDP) by 35% by 2030 from 2005 levels.

How many of the statements given above are correct?

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

12. Which of the following statements about India's role and commitments under global environmental agreements is/are correct?

1. India became a party to the Vienna Convention and Montreal Protocol in 1992.
2. The Kigali Amendment, adopted in 2016, aims to phase down Hydrofluorocarbons (HFCs).
3. India launched the Cooling Action Plan in 2019 to address refrigerants and energy efficiency but has not yet phased out any ozone-depleting substances (ODS).

Select the correct answer using the code given below:

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

13. Kuno National Park is located in which of the following hills in India?

- (a) Khasi Hills (b) Vindhyan Hills
(c) Palani Hills (d) Maikal Hills

14. Which of the following statements regarding the Greater One-Horned Rhino is/are correct?

1. The Greater One-Horned Rhino is listed as "Critically Endangered" on the IUCN Red List.
2. The primary habitat of the Greater One-Horned Rhino in India is found in Assam.
3. The population of the Greater One-Horned Rhino has declined 20% in the last decade.

Select the correct answer using the code given below:

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

15. Which of the following is a primary function of pheromones in insects?

- (a) To regulate body temperature
(b) To trigger behavioral responses such as attracting mates, warning about predators, and finding food
(c) To aid in photosynthesis
(d) To help in digestion

16. Consider the following statements

1. India aims to generate 50% of its electric power through non-fossil fuels by 2030, reducing emission intensity of GDP by 45% from 2005 levels.
2. National Clean Air Programme's Target has been revised to achieve reduction in PM10 level up to 40% by 2025-26.
3. India's Long-Term Low Emission Development Strategy (LT-LEDS) declares the goal of becoming net-zero by 2070.

How many of the above statements are correct?

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

EXPLANATIONS

1. (b)

In News: Recently, Non-profit groups in Europe have taken legal action against the European Commission, arguing that the European Union's (EU) 2030 emission targets are falling short of the ambitious goals set by the Paris Agreement.

- **Inadequate Targets:** CAN-Europe and GLAN contend that the EU's emission reduction goals are insufficient to meet the Paris Agreement's objective of limiting global warming to 1.5°C.
 - It marks the first time the EU courts will scrutinise the adequacy of the bloc's climate targets.

2. (b)

IndOBIS (Indian Ocean Biodiversity Information System) is a regional node of the global Ocean Biodiversity Information System (OBIS). It serves as a centralized platform for collecting, managing, and disseminating data on marine biodiversity in the Indian Ocean region. It is being run by Centre for Marine Living Resources and Ecology (CMLRE), Kochi.

Functions:

- It aggregates biodiversity data from various sources, including research institutions, government agencies, and citizen scientists.
- The platform enables spatial analysis of marine biodiversity patterns, helping identify areas of high biodiversity and ecological significance.

3. (a)

Green Turtles

- The green turtle is one of the largest sea turtles and the only herbivore among the different species. Green turtles are in fact named for the greenish color of their cartilage and fat, not their shells.
- In the Eastern Pacific, a group of green turtles that have darker shells are called black turtles by the local community. Green turtles are found mainly in **tropical and subtropical waters**.
- Like other sea turtles, they migrate long distances between feeding grounds and the beaches from where they hatched.
- Listed as **endangered**, green turtles are threatened by overharvesting of their eggs, hunting of adults, being caught in fishing gear and loss of nesting beach sites.

4. (c)

Statement 1 is correct: Teal carbon is indeed stored in non-tidal freshwater wetlands, and it includes various forms such as vegetation, microbial biomass, and organic matter.

Statement 2 is correct: India's first study on teal carbon, conducted at Keoladeo National Park (KNP) in Rajasthan, highlights the importance of wetland conservation in addressing climate change. Keoladeo National Park was designated as a UNESCO World Heritage Site in 1985. Keoladeo National Park was placed on the Montreux Record under the Ramsar Convention due to concerns about water shortages and unbalanced grazing.

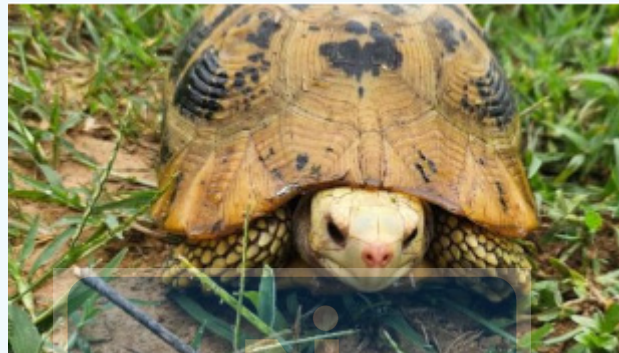
5. (b)

Context

- The elongated tortoise was spotted in Haryana's **Damdama area** during a research survey in the **Aravallis**.

About

- **Characteristics:** The tortoise is medium-sized with a **yellowish brown or olive shell** and distinct **black blotches** at the center of each scute.
 - The tortoise has on its nostril a **pink ring**, which appears in the breeding season.
- **Distribution:** The species is widely distributed across **northeast India, Bangladesh, Nepal, Bhutan, Thailand, Vietnam, Cambodia, Laos, and Malaysia**.
 - A disjunct tortoise population exists in the **Chota Nagpur plateau** in eastern India.
- **Habitat:** The species, also referred to as the **Sal Forest Tortoise**, inhabits open deciduous forest patches, including Sal and evergreen forest habitats, dry thorn forests, and savannah grasslands.
- **IUCN Status:** Critically Endangered



6. (a)

Statement 1 is correct: Salt Pans comprise **parcels of low-lying lands** where seawater flows in at certain times, and leaves behind **salt and other minerals**.

Statement 2 and 3 are not correct: Along with mangroves, this ecosystem is **instrumental in protecting the city from flooding**.

- According to the Coastal Regulation Zone (CRZ), the ecologically sensitive salt pans fall under **CRZ-1B category**, where no economic activity is allowed with the exception of salt extraction and natural gas exploration.
- **Andhra Pradesh** boasts the largest expanse of such land, followed by Tamil Nadu and Maharashtra.

7. (a)

In News: A group of researchers have discovered a sacred grove— a Myristica swamp forest in Kumbral, which is protected by the local community.

Statement 1 is correct: Myristica swamp forests are found in the Western Ghats, Andaman and Nicobar Islands, and Meghalaya.

Statement 2 is not correct: Myristica magnifica is native to Karnataka and Kerala, not Tamil Nadu and Andhra Pradesh.

Statement 3 is correct: These forests provide essential ecosystem services such as groundwater recharge, carbon sequestration, and acting as natural flood barriers.

8. (b)

In News : The Ministry of Environment, Forest and Climate Change held an event in New Delhi to celebrate the 30th World Ozone Day.

- **Ozone, with the chemical formula O₃, differs from the breathable oxygen (O₂) essential for life.**

- Although it makes up a small part of the atmosphere, ozone is crucial for human well-being.
- Most ozone is found in the **stratosphere**, 10 to 40 km above Earth's surface, where it absorbs harmful ultraviolet radiation from the Sun, making it "good" ozone.
- In contrast, excess ozone at Earth's surface, formed from pollutants, is "bad" ozone and can be harmful.
- Ozone can oxidise sulphur dioxide present in the atmosphere to sulphur trioxide.
- Naturally occurring ozone near the surface also helps remove pollutants from the atmosphere.

9. (a)

About Assam Cascade Frog (Hill Stream Frog)

- **Endemic to Himalayan regions** in India, Bangladesh, Bhutan, and Nepal.
- **Found in hilly streams**, especially in the Churdhar Wildlife Sanctuary in Himachal Pradesh.
- It is studied to understand the correlation of **water parameters with the abundance and density of its population**.
- **Serves as an indicator species** for monitoring the long-term health of hilly streams.

10. (b)

Statement 1 and 2 are correct: Commons is a term used to refer to resources that are **not owned by any individual or group or the government**, but belong to, and are shared by, the **community as a whole**.

- Forests, local ponds, grazing lands, rivers, and sacred sites are all Commons. In the urban setting, parks and lakes are Commons.
- They provide a variety of **ecological and other services** that are beneficial for the entire community.
- **Intangible Commons:** Language, folk art or dance, local customs, and traditional knowledge are all shared resources, and thus are Commons.
- **At the international level**, the polar regions, the Arctic and Antarctica, are considered global Commons.
- Outer space, the Moon, and other planetary bodies are also **global Commons**.

Statement 3 is not correct: There are **international agreements**, for the use and management of **polar regions, outer space, and high seas**.

- **The Paris Agreement on climate change**, which seeks to maintain a liveable planet for everyone, is an example.

11. (a)

Statement 1 is correct: India has a vision is to achieve **Net Zero Emissions by 2070**.

Statement 2 and 3 are not correct: Increasing renewables capacity to **500 GW by 2030**,

- Meeting **50% of energy requirements** from renewables,
- Reducing cumulative emissions by **one billion tonnes by 2030**, and
- Reducing emissions intensity of India's gross domestic product (GDP) by **45% by 2030 from 2005 levels**.

12. (a)

Statement 1 is correct: India became a party to the Vienna Convention and Montreal Protocol in 1992.

Statement 2 is correct: The Kigali Amendment, adopted in 2016, aims to phase down HFCs.

Statement 3 is not correct: India has phased out several ODS, including Chlorofluorocarbons, Carbon tetrachloride, Halons, Methyl Bromide, and Methyl Chloroform.

13. (b)

Kuno National Park

- The park is located in the **Vindhyan Hills** of Central India in **Madhya Pradesh**.
- It was established in **1981** as a wildlife sanctuary. In 2018, it was given the status of a national park.
- The **Kuno river** flows through the national park.

14. (b)

Statement 1 is not correct: The Greater One-Horned Rhino is listed as Vulnerable on the IUCN Red List, not Critically Endangered.

Statement 2 is correct: More than 90% of the Greater One-Horned Rhino population in India is concentrated in Kaziranga National Park, Assam.

Statement 3 is not correct: The population of the Greater One-Horned Rhino in India was recorded at 3,262 in 2021. The population has **increased by 20% over the past decade**, now exceeding 4,000 rhinos.

15. (b)

Pheromones are chemical signals that elicit behavioral responses in members of the same species. Pheromones can be found in body fluids such as urine, sweat, exocrine glands, and genital secretions.

16. (c)

In News : Indian Coast Guard (ICG) signed a Memorandum of Understanding (MoU) with 'The Habitats Trust' and 'HCL Foundation' to strengthen efforts in marine conservation .

All the Statements are correct

- NCAP envisages reduction by 20-30% in PM concentration over baseline in year 2017 by 2024. Target has been revised to achieve reduction in PM10 level up to 40% or achievement of national standards (60 µg/m³) by 2025-26.
- India aims to generate 50% of its electric power through non-fossil fuels by 2030, reduce emission intensity of GDP by 45% from 2005 levels, and create a carbon sink of 2.5-3 billion tons by 2030.
- **Net-Zero Goal (2070):** India's Long-Term Low Emission Development Strategy (LT-LEDS) declares the goal of becoming net-zero by 2070.

17. (d)

Hemis National Park

- Hemis high altitude national park or the Hemis national park is a wildlife park located in **Ladakh** of Jammu and Kashmir.
- This is the only park in the country, which is located in the northern region of Himalayas and it is the largest national park in the country.

Khangchendzonga National Park

- Located in the **State of Sikkim**, the Khangchendzonga National Park includes a unique diversity of plains, valleys, lakes, glaciers and spectacular, snow-capped mountains covered with ancient forests, including the world's third highest peak, Mount Khangchendzonga.

Mathikettan Shola National Park

- It is situated in the Idukki district of **Kerala** state.

- The important mammals found in the Park are elephant, gaur, wild boar, sambar, common langur, wild dog and jungle cat.

18. (a)

Statement 1 is correct: IBCA was launched in 2023 to strengthen cooperation for conserving seven big cat species, including puma and jaguar.

Statement 2 is not correct: Although India is the headquarters of IBCA, India does not inhabit puma and jaguar; it houses the other five big cats (tiger, lion, leopard, snow leopard, and cheetah).

19. (a)

Statement 1 is correct: Biomass can be converted directly into **liquid fuels**, called biofuels.

- The two **most common types of biofuels** in use today are **ethanol and biodiesel**, both of which represent the first generation of biofuel technology.

Statement 2 is not correct: **Ethanol** (CH₃CH₂OH) is a renewable fuel that can be made from various **plant materials**, collectively known as “biomass.”

- **Biodiesel:** It is a liquid fuel produced from renewable sources, such as **new and used vegetable oils and animal fats** and is a cleaner-burning replacement for petroleum-based diesel fuel.

20. (b)

Context: Manipur’s Tamenglong district has imposed a ban on the hunting of Amur Falcons.

About Amur Falcons

- They are **small raptors** of the **falcon family** with the scientific name **Falco amurensis**.
- They are the **world’s longest travelling raptors** and start their travelling routine with the onset of winters, the longest amongst all avian species.
- They are named after the **Amur River** that forms the border between Russia and China.
- **Conservation Status:**
 - **IUCN:** Least Concerned
 - **Indian Wildlife Protection Act, 1972:** Protected
 - **The Convention on Migratory Species (CMS):** Protected

21. (a)

In News: A rare polar bear spotted in a remote Icelandic village was shot by police after being deemed a threat to public safety.

Statement 1 is correct: Polar bear (*Ursus maritimus*) is the largest and heaviest land carnivore in the world. Specially adapted to living in the Arctic.

Statements 2 and 3 are not correct : Polar bears can swim at six miles per hour, using their front paws to paddle and their hind legs as rudders.

- They have a thick layer of fat and a water-repellent coat that insulates them from cold air and water.
- The species is found in Canada, Greenland/Denmark, Norway , Russia, and the United States.
- **IUCN Red List Status : Vulnerable**

22. (d)

The National Green Tribunal (NGT) has ordered a stay on construction of a road inside the **Barak Bhuban Wildlife Sanctuary** in **Assam’s Cachar district**.

- It was declared a wildlife sanctuary in 2022.
- The Barak Bhuban encompasses a sprawling 320 square kilometres nestled between the **Barak and Sonai rivers**.



MISCELLANEOUS

1. 'Operation Bhediya' recently seen in the news, is launched by which of the following states?
(a) Maharashtra (b) Karnataka
(c) Gujarat (d) Uttar Pradesh
2. Justice Biplab Kumar Sarma committee, recently seen in the news, is related to which of the following?
(a) Monetary policy (b) Implementation of Assam Accord
(c) Tax reforms in India (d) Banking Reforms
3. The Global Innovation Index (GII) 2024 is published by;
(a) World Bank
(b) United Nations Development Programme (UNDP)
(c) World Intellectual Property Organization (WIPO)
(d) World Economic Forum (WEF)
4. The term '*Na Anka Durbhikshya*', sometimes appeared in the news, is related to:
(a) Great Bengal Famine (1770) (b) Chalisa Famine (1782-84)
(c) Doji Bara Famine (1788-92) (d) Great Orissa Famine (1866)
5. Consider the following statements:
 1. The Travel and Tourism Development Index (TTDI) is an annual report published by the World Economic Forum (WEF).
 2. The theme for World Tourism Day 2024 is "Tourism and Peace".Which of the statements given above is/are correct?
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
6. Consider the following statements with reference to the Asia Power Index:
 1. It is an annual Index, launched by the Lowy Institute in 2018.
 2. The 2024 Index was topped by China followed by 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. With reference to the Euthanasia, consider the following statements:
 1. It is the act of deliberately ending a person's life to eliminate pain or suffering.
 2. Passive euthanasia is the intentional act of killing a terminally ill patient on voluntary request, for the purpose of the good of the patient.
 3. The Supreme Court had in 2018 legalised passive euthanasia, depending upon the fact that the person is having a living will.

How many of the statements given above are correct?

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

8. 'Santhanam Committee' is related to which of the following?

- (a) Prevention of Corruption
- (b) Women Safety at Workplace
- (c) Tax reforms in India
- (d) Banking Reforms

9. The term 'Project Strawberry', recently seen in the news, is related to

- (a) Safeguarding India's digital landscape
- (b) OpenAI's upcoming AI model
- (c) Preventing famine and deadly disease outbreaks in Gaza
- (d) Exploring possibility of strawberry cultivation in Rajasthan

10. Which of the following Indian states is also known as the 'Soya bean State'?

- (a) Rajasthan
- (b) Uttar Pradesh
- (c) Bihar
- (d) Madhya Pradesh

11. Consider the following statements with reference to the National Florence Nightingale Awards:

1. This Award was instituted by the Ministry of Health and Family Welfare in the year 2020.
2. It is given as a mark of recognition for the meritorious services rendered by the nurses and nursing professionals to society.

Which of the statements given above is/are correct?

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

12. With reference to the National Instructional Media Institute (NIMI), consider the following statements:

1. NIMI was initially established in 1986 as the Central Instructional Media Institute.
2. It operates under the Ministry of Skill Development & Entrepreneurship (MSDE) and functions as an autonomous body.
3. The primary objective of NIMI is to develop instructional materials, e-content, and question banks, as well as provide skill training in media production.

Which of the statements given above is/are correct?

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

13. The Standing Committee on Statistics (SCoS), recently seen in the news, was headed by which of the following?

- (a) Bishwanath Goldar
- (b) Pronab Sen
- (c) Sonalde Desai
- (d) K. Radhakrishnan

14. Operation CHAKRA III, recently conducted by the Central Bureau of Investigation (CBI), is related to:

- (a) Combating drug trafficking
- (b) Addressing Real estate scams
- (c) Dismantling a cyber-enabled financial crime network
- (d) Curbing human trafficking

15. Exercise AIKYA, recently seen in the news, aims to
- Foster military cooperation between India and Kenya
 - Enhance disaster preparedness among key stakeholders
 - Promote public-private cooperation to combat cybercrime
 - Protect ship movement in the Persian Gulf
16. Which among the following has become the first country in the world to eliminate leprosy?
- Sweden
 - Jordan
 - Finland
 - China
17. Consider the following statements:
- Chess Olympiad is an annual event and India has been participating in it since 1956.
 - The history of chess in India can be traced back to 1600 years ago during the Gupta dynasty.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
18. Which among the following are the factors contributing to the increasing work-life imbalance in India?
- Technological Advancements
 - Cultural Expectations
 - Job Insecurity
- Select the correct answer using the code given below:
- 1 and 2 only
 - 2 and 3 only
 - 1 and 3 only
 - 1, 2 and 3
19. What is a retraction in the context of academic publishing?
- A process to update scientific findings
 - A method for peer review
 - A mechanism to remove a flawed scientific paper from literature
 - A way to enhance the visibility of a paper
20. The phrase '*Working Mechanism for Consultation & Coordination (WMCC)*' was sometimes appeared in the news, is in context of:
- Nuclear Disarmament
 - Border Disputes
 - Sustainable Development
 - Climate Change

EXPLANATIONS

1. (d)

The Uttar Pradesh government has launched **Operation Bhediya** to capture a pack of wolves in Bahraich district.

- The recently swelling Ghaghara river surging jungles have **disrupted their original habitat**.
- Indian wolves have been known to act as **scavengers**, preying on dead livestocks.
 - However, they are known to feed on livestock when natural prey is scarce. The animals also have a history of preying on children.

- The exact numbers of the Indian wolf are not known, though estimates suggest there are between 2,000 and 3,000 individuals across Rajasthan, Gujarat, Maharashtra and Karnataka.

2. (b)

The Assam Accord was a Memorandum of Settlement between the Union government and the leadership of the All Assam Students' Union (AASU), which was signed in **1985**.

- In 2019, the Union Home Ministry constituted a committee chaired by retired **Assam High Court Justice Biplab Kumar Sarma**, to suggest ways to implement the clause.
 - Among the key questions before the committee was a definition of the Assamese people eligible for the safeguards under **Clause 6**.

3. (c)

Context

- India has risen to **39th position** among 133 global economies in the Global Innovation Index 2024.

About

- The Global Innovation Index (GII) is published by the **World Intellectual Property Organization (WIPO)**, a specialized agency of the **United Nations**.
- It **measures innovation based on criteria** that include institutions, human capital and research, infrastructure, credit, investment, linkages; the creation, absorption and diffusion of knowledge; and creative outputs.

Global Innovation Index 2024

- **Top performer:** Switzerland, Sweden, the United States, Singapore and the United Kingdom
- **Fastest 10-year climbers:** China, Turkiye, India, Viet Nam and the Philippines.

4. (d)

In News: Recently, the Union Education Minister proposed changing the name of Ravenshaw University as it believes **Na Anka Famine** occurred during Ravenshaw's tenure.

- Odisha was ravaged by a catastrophic famine—the **Na Anka Durbhikshya (1866) (aka Great Odisha Famine)**, just two years before the **Ravenshaw University's establishment**.
 - Ravenshaw University, nestled in the ancient city of Cuttack in Odisha was founded in 1868.
- **Severity:** The famine was so severe that approximately **one-third of Odisha's population** perished during this tragic period.

5. (b)

Context: World Tourism Day is celebrated on **27th of September** every year.

About

- **Background:** The United Nations World Tourism Organization (UNWTO) established World Tourism Day in **1980**, marking the adoption of the UNWTO Statutes on September 27, 1970.
- **Objectives:** The day is celebrated with the aim of using tourism as a major means for sustainable development and poverty alleviation
- **Theme for 2024:** 'Tourism and Peace.'

Travel and Tourism Development Index (TTDI)

- It is a **biennial report** published by the World Economic Forum (WEF).
- In the 2024 report, India is ranked 39th among 119 countries.

6. (a)

Context: In a major shift, India surpassed Japan to become the third-largest power in the Asia Power Index 2024, reflecting its increasing geopolitical stature.

Asia Power Index

- The **annual** Asia Power Index, launched by **Lowy Institute** in 2018, consists of eight measures of power, 30 thematic sub-measures and 131 indicators.
- It evaluates **27 countries across the Asia-Pacific**, and focuses on both the material capabilities of states and the influence they exert on the international stage.
- The 2024 Index was topped by the **United States** followed by **China**.

7. (b)

Statement 1 is correct: Euthanasia is the **act of deliberately ending a person's life** to eliminate pain or suffering

- Ethicists differentiate between **active and passive euthanasia**.

Statement 2 is not correct: **Passive euthanasia** entails the deliberate **decision to withhold or withdraw medical interventions**, like life support, with the aim of permitting a person's natural death.

- **Active Euthanasia** is the intentional act of killing a terminally ill patient on voluntary request, by the direct intervention of a doctor for the purpose of the good of the patient. It is illegal in India.

Statement 3 is correct: The Supreme Court had in **2018 legalised passive euthanasia**, contingent upon the person having a "living will".

- SC held that the '**right to die with dignity**' forms a part of the **right to life under Article 21** of the Constitution of India.
- A **living will is a written document** that specifies the **actions to be taken if the person is unable** to make their own medical decisions in the future.

8. (a)

Central Vigilance Commission (CVC) was set up by the Government of India (Ministry of Home Affairs) vide Resolution in **1964** on the recommendation of the **Santhanam Committee**.

- It aims to promote integrity, transparency, and accountability in the public sector.
- **Mandate:** The CVC is tasked with overseeing and ensuring the proper functioning of various government departments and public sector enterprises.
 - It investigates allegations of **corruption** and malpractices against public servants.

9. (b)

Context: OpenAI is reportedly planning to release its most powerful AI model (codenamed Project Strawberry), and could integrate it into **ChatGPT-5**.

About

- Earlier known as **Project Q*** (Q-star), it has been billed as OpenAI's push to create **Artificial General Intelligence** with capabilities similar to that of the human brain.
- It will be able to solve math problems **even if it has never been trained on them**, perform high-level tasks like designing market strategies and solving complex word puzzles and do "deep research."
- It will also help the AI firm develop their next large language model (LLM) called **Orion**.

10. (d)

Context: The Madhya Pradesh government has approved a proposal to increase the Minimum Support Price (MSP) for soya bean to ₹4,800 per quintal from the current price of close to ₹4,000.

About

- Madhya Pradesh is the largest soya bean producing State in the country with over 50% of the nation's production and is also known as the '**Soya bean State**'.

11. (b)

Context: The President of India has conferred the National Florence Nightingale Awards 2024 to Nurses at Rashtrapati Bhavan, New Delhi.

National Florence Nightingale Awards

- The Award was instituted by the **Ministry of Health and Family Welfare** in the year **1973**.
- This award is given as a mark of recognition for the meritorious services rendered by the **nurses and nursing professionals** to society.
- Each **award consists** of a Certificate of Merit, Cash Award of Rs.1,00,000/- and a medal.

12. (d)

Statement 1 is correct: NIMI was established in 1986 as the Central Instructional Media Institute.

Statement 2 is correct: NIMI functions under the Ministry of Skill Development & Entrepreneurship (MSDE) as an autonomous institution.

Statement 3 is correct: NIMI's objective includes developing instructional materials, e-content, and question banks, as well as providing training for media developers and trainers.

13. (b)

News: The Union Ministry of Statistics and Programme Implementation has dissolved the 14-member Standing Committee on Statistics (SCoS) headed by eminent economist and former chief statistician of the country **Pronab Sen**.

What were the key responsibilities of SCoS?

- The SCoS advised the Centre on survey methodology, including sampling frames, sampling design, survey instruments, questions, etc.
- It also played a vital role in finalising the tabulation plan of surveys, reviewing the extant framework, and addressing the issues raised from time to time on the subjects, results, methodology, etc. related to all surveys.

Steering Committee

- The Steering Committee, which replaces the SCoS, has 17 members and one non-member secretary.
- The Centre has retained at least four members from the SCoS in the Steering Committee.
- The tenure of the Steering Committee will be for two years.

14. (c)

Context

- The Central Bureau of Investigation (CBI) in its ongoing **Operation CHAKRA-III** has taken action to successfully **dismantle a sophisticated cyber-enabled financial crime network**.

About

- This operation was executed with cooperation from other international law enforcement agencies including the **FBI (USA) and INTERPOL**.

- The network has been targeting victims in foreign countries since **2022**, with their operations involving **cryptocurrencies and bullion**.

15. (b)

Context: Recently, a two-day national symposium of the National Disaster Management Authority and the Army Southern Command entitled **Exercise AIKYA** was held in Chennai.

About

- The primary aim of the exercise is to **enhance disaster preparedness** and foster robust collaboration among key stakeholders.
- The exercise will feature simulations, technology discussions and expert insights into various roles of disaster management.

16. (b)

The World Health Organization (WHO) has declared **Jordan as the first country in the world to eliminate leprosy**.

- Leprosy is also known as **Hansen's disease**, it is a chronic infectious disease caused by a type of bacteria, **Mycobacterium leprae**.
- It is known to occur at **all ages** ranging from early childhood to old age.
- **Symptoms:** The disease predominantly affects the skin and peripheral nerves.
 - Loss of sensation in affected areas can occur, increasing the risk of injuries going unnoticed due to the decreased ability to sense touch and pain.
 - Left untreated, the disease may cause progressive and permanent disabilities.
- **Transmission:** The disease is transmitted through droplets from the nose and mouth.

17. (b)

Context: India has bagged its **first ever gold medal** in both the men's and the women's team categories at the **45th Chess Olympiad** in Budapest.

Chess Olympiad

- It is the world's most prestigious team event for chess and India has been participating in the **biennial event** since 1956 and has played in every Olympiad since 1980.
- Now with this win, India also became the **third country** to win gold in both men's and women's categories in the **same edition** of Chess Olympiad after Soviet Union and China.

Origin of Chess

- The history of chess in India can be traced back to **1600 years** ago during the **Gupta dynasty**.
- It was called 'chaturanga' in earlier times.
- Chess, via India, reached many countries of the world and became very popular.
- Today, chess is being used in schools as an **education tool** for children.

18. (d)

Work-life balance refers to the **ability to effectively manage** your professional responsibilities alongside your personal life and well-being.

- It involves finding a **healthy equilibrium** between work obligations, family time, personal interests, and self-care.
- According to the International Labour Organization (ILO) the **average work week** in some of the first-world countries is **less than in India**.

Reasons for Work-Life Imbalance in India

- **Technological Advancements:** The rise of remote work and constant connectivity through smartphones makes it difficult for employees to disconnect from work.
- **Cultural Expectations:** In India it is a cultural expectation to prioritize work, leading employees to sacrifice personal time for job commitments.
- **Job Insecurity:** Economic fluctuations and a competitive job market cause individuals to work longer hours to demonstrate commitment and job security.
- **Workplace Hierarchies:** Traditional hierarchies in many organizations lead to a culture of overwork, where employees feel pressured to adhere to long hours.

19. (c)**Context**

- According to the 'Retraction Watch' database, Paper retractions are becoming more common worldwide even as the research misconduct problem is worsening in India.

What are retractions?

- A retraction is a mechanism that kicks in when a **scientific paper published in an academic journal is found to be so flawed** as to merit being removed from scientific literature.
- Between 2020 and 2022, **2.5 times** more papers were retracted than they were between 2017 and 2019.
- The reasons for retraction include **plagiarism, editorial conflicts, image manipulation, and the use of paper mills.**

20. (b)**Working Mechanism for Consultation & Coordination (WMCC)**

- It is an institutional framework established to facilitate communication, coordination, and management of border-related issues **between India and China.**
- It emerged as a response to the need for improved institutionalised information exchange regarding border matters.

