

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

**AUGUST 2024**

**NEXT IAS**

# *Table of Contents*

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❖	History, Art & Culture .....	3
❖	Economy .....	13
❖	Indian Polity & Constitution .....	22
❖	Geography .....	29
❖	Government Schemes/Initiatives .....	43
❖	Defense/ Internal Security.....	55
❖	International Relations.....	59
❖	Science & Technology.....	65
❖	Environment & Ecology .....	75
❖	Miscellaneous .....	87

# HISTORY, ART & CULTURE

1. With reference to Bal Gangadhar Tilak, consider the following statements:

1. He was a proponent of the 'Swaraj is my birthright' slogan.
2. Tilak's interpretation of the Indian scriptures was influenced by Western thought.
3. He was a strong critic of the British educational system in India.

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

2. With reference to Pingali Venkayya, consider the following statements:

1. He designed the Indian National Flag on the request of Mahatma Gandhi.
2. Venkayya served as a soldier in the British Army in South Africa during the Anglo-Boer War.
3. His literary work 'Bharatha Deshaniki Oka Jatiya Patakam' (National Flag of India) was published in 1916.

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 Bharatanatyam, which of the following statements is/are correct?

1. It is an Indian classical dance form that originated in Kerala.
2. The dance is known to be ekaharya, where one dancer takes on many roles in a single performance.

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. He was a freedom fighter, educationist, and writer besides being a nationalist and true patriot. He is the man behind the design of the Tricolour, India's national flag.

Which of the following personalities has been described above?

- (a) Dr. B.R. Ambedkar (b) Mahatma Gandhi  
(c) Pingali Venkayya (d) Subhas Chandra Bose

5. Consider the following statements regarding World Craft Cities in India:

1. Jaipur has been recognized for its traditional craft of blue pottery.
2. Varanasi is primarily known for its intricate wood carvings.
3. Mysuru is known for its silk weaving tradition.

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

6. Which of the following statements about Rabindranath Tagore is/are correct?
1. He was the first non-European to win the Nobel Prize in Literature.
  2. He founded Visva-Bharati University, a center for cultural exchange and learning.
  3. He was a prominent figure in the Indian nationalist movement, actively participating in protests and advocating for social reform.

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

7. He started the Rakhi Utsav where people from Hindu and Muslim communities tied colourful threads on each other's wrists. He renounced his Knighthood in protest against the horrifying Jallianwala Bagh massacre.

Which of the following personalities has been described above?

- (a) Pherozeshah Mehta (b) Rabindranath Tagore  
(c) Dadabhai Naoroji (d) Dinshaw Eduljee Wacha

8. In the context of modern Indian history, at which one of the following places, Mahatma Gandhi issued his famous call to 'Do or Die'?

- (a) Dandi, Gujarat (b) Aga Khan Palace, Pune  
(c) Gwalior Tank Maidan in Mumbai (d) Sabarmati Ashram, Ahmedabad

9. With reference to the history of India, consider the following:

1. Ram Prasad Bismil
2. Ashfaqullah Khan
3. Rajendra Lahiri

How many of the above personalities are associated with the *Kakori Train Action of 1925*?

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

10. He was one of the greatest scientists of India. He is widely regarded as the father of the Indian space programme. He was also Chairman of the Atomic Energy Commission

He received the Shanti Swarup Bhatnagar Medal in 1962. The nation honoured him by awarding Padma Bhushan in 1966 and Padma Vibhushan (posthumously) in 1972.

Who among the following personalities described above?

- (a) C. V. Raman (b) Satyendra Nath Bose  
(c) Vikram Sarabhai (d) Homi Jehangir Bhabha

11. Gotipua dance, recently seen in news, belongs to which of the following regions of India?

- (a) Gujarat (b) Maharashtra  
(c) Andhra Pradesh (d) Odisha

12. He was the first president to be elected as an independent candidate. He is known for his contributions to the labor movement and his strong advocacy for worker's rights. He is also the recipient of the Bharat Ratna.

Which of the following personalities has been described above?

- (a) Dr. Rajendra Prasad (b) Varahagiri Venkata Giri  
(c) Neelam Sanjiva Reddy (d) Dr. APJ Abdul Kalam

13. With reference to traditional dance forms, Consider the following pairs :

<b>Dance form</b>	<b>:</b>	<b>State</b>
-------------------	----------	--------------

- |                   |   |                |
|-------------------|---|----------------|
| 1. Kolattam Dance | : | Andhra Pradesh |
| 2. Gotipua dance  | : | Gujarat        |
| 3. Seethakali     | : | Kerala         |

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 |

14. He joined a group named ‘Anushilan Samiti’, became a volunteer at the age of 15, and was arrested for distributing pamphlets against British rule in India. He is most remembered for his attempt to assassinate the British judge, Magistrate Douglas Kingsford, which ultimately led him to be sentenced to death at the young age of 18.

Which of the following personalities has been described above?

- |                       |                      |
|-----------------------|----------------------|
| (a) Ram Prasad Bismil | (b) Khudiram Bose    |
| (c) Prafulla Chaki    | (d) Ashfaqullah Khan |

15. With reference to Madame Bhikaji Cama, consider the following statements:

1. She is credited with hoisting the first Indian flag on foreign soil.
2. She co-founded the Paris Indian Society.
3. She launched the London edition of the revolutionary newspaper “Bande Mataram.”

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   |

16. With reference to Famous Places in India, Consider the following pairs :

<b>Famous Places</b>	<b>:</b>	<b>River</b>
----------------------	----------	--------------

- |             |   |             |
|-------------|---|-------------|
| 1. Hampi    | : | Tungabhadra |
| 2. Varanasi | : | Ganga       |
| 3. Madurai  | : | Vaigai      |

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 |

17. Which among the following are the Literary works of Sri Aurobindo?

- |                      |                                 |
|----------------------|---------------------------------|
| 1. The Life Divine   | 2. The Arctic Home in the Vedas |
| 3. Synthesis of Yoga | 4. Srimad Bhagavadgita Rahasya  |

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. Consider the following statements regarding Gallantry Awards in India:

1. The Ashoka Chakra is the highest military decoration awarded for acts of exceptional courage and bravery displayed in the presence of the enemy.
2. The Kirti Chakra and Shaurya Chakra are peacetime gallantry awards.
3. Gallantry Awards are announced only once a year, on the occasion of Republic Day.

Which of the statements given above is/are correct?

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

19. *Sadbhavana Diwas* or *Harmony Day* is observed every year on the birth anniversary of which of the following personalities?
- (a) Rajiv Gandhi (b) Dr. A.P.J Abdul Kalam  
(c) Mahatma Gandhi (d) Dr. B.R. Ambedkar
20. *Dhangars community*, sometimes appeared in the news, belong to which of the following Indian States?
- (a) Rajasthan (b) Maharashtra  
(c) Odisha (d) Jharkhand
21. He took part in revolutionary activities in Britain for the cause of Indian independence. In 1909, he was hanged to death for killing British official Curzon Wylie.  
Which of the following personalities has been described above?
- (a) Madan Lal Dhingra (b) Prafulla Chaki  
(c) Baji Rout (d) Khudiram Bose
22. He was a member of Hindustan Socialist Republican Association (HSRA), a revolutionary organization and was given the death sentence in the Lahore conspiracy case.  
Which of the following personalities has been described above?
- (a) Ashfaqulla Khan (b) Ram Prasad Bismil  
(c) Chandra Shekhar Azad (d) Shivaram Hari Rajguru
23. With reference to the Classical Languages in India, consider the following statements:
- India has five classical languages including Sanskrit and Odia.
  - All the Classical Languages are listed in the Eighth Schedule of the Constitution.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
24. With reference to the Eighth Schedule of the Indian Constitution, consider the following statements:
- It recognizes the 22 languages including Urdu and Nepali.
  - Konkani, Manipuri and Nepali were added by the 92nd Amendment Act of 2003.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
25. The term 'jiu-jitsu and aikido', recently seen in the news, are related to
- (a) Programming Languages (b) Forms of Martial Arts  
(c) AI Chatbots (d) Uninhabited Islands

### EXPLANATIONS

1. (c)

**Statement 1 is correct:** Bal Gangadhar Tilak is famously associated with the slogan "Swaraj is my birthright, and I shall have it," which he used to inspire the Indian independence movement.

**Statement 2 is not correct:** He was deeply rooted in Indian tradition and culture. While he may have been exposed to Western thought, his interpretations of Indian scriptures, like his commentary on the Bhagavad Gita, were primarily based on traditional Indian philosophies and his desire to awaken national consciousness.

**Statement 3 is correct:** Bal Gangadhar Tilak criticized the British educational system for its failure to promote Indian culture and values and for creating a class of people who were disconnected from their own heritage.

2. (d)

**Statement 1 is correct:** Pingali Venkayya was born in the Krishna district of Andhra Pradesh. He was credited with designing the Indian National Flag, and he did so on the encouragement and approval of Mahatma Gandhi.

**Statement 2 is correct:** Venkayya enrolled in the British Indian Army and bravely fought the Boer War in South Africa. In this foreign country Venkayya got acquainted with Mahatma Gandhi for the first time.

**Statement 3 is correct:** His book 'Bharatha Deshaniki Oka Jatiya Patakam' (National flag of India) was published in 1916.

3. (b)

**Bharatanatyam**

- Bharatanatyam is an Indian classical dance form that originated in **Tamil Nadu**. It is considered to be over 2000 years old.
  - Several texts beginning with **Bharata Muni's Natya Shastra** provide information about it.
- In the early 19th century, the famous **Tanjore Quartette**, under the patronage of **Raja Serfoji**, is said to have been responsible for the repertoire of Bharatanatyam dance as we see it today.
- The style was kept alive by the **devadasis**, who were young girls 'gifted' by their parents to the temples and who were married to the gods.
- The dance is known to be **ekaharya**, where one dancer takes on many roles in a single performance.
- The accompanying orchestra consists of a vocalist, a **mridangam** player, violinist or **veena** player, a flutist and a **cymbal** player.
  - The person who conducts the dance recitation is the **Nattuvanar**.

4. (c)

**News:** Prime Minister Narendra Modi paid homage to the designer of the Indian national flag, Pingali Venkayya on his birth anniversary.

**About**

- Pingali Venkayya was born on 2 August 1876 in Bhatlapenumarru, near Machilipatnam, Andhra Pradesh.
- He was an avid flag enthusiast who came up with a booklet titled '**A National Flag for India**' in 1916, wherein he had presented twenty-four flag designs.

**Flag Design**

- Pingali Venkayya had designed a flag, known as the **Swaraj Flag**, that now forms the basis of India's present-day national flag.
- It consisted of red and green bands to symbolize the two major communities in the country- Hindus and Muslims.
- On the advice of Mahatma Gandhi, he added a white colour band to represent peace and harmony between communities along with a spinning wheel to represent progress of the country.

5. (c)

**Statement 1 is correct:** Jaipur has been recognized for its traditional craft of blue pottery.

**Statement 2 is not correct:** While Varanasi is a city rich in crafts and traditions, it's primarily known for its silk weaving, banaras sarees, and brassware. Wood carvings are not its primary craft identity.

**Statement 3 is correct:** Mysuru silk sarees are world-renowned for their quality and elegance.

6. (b)

**Statement 1 is correct:** Tagore was awarded the Nobel Prize in Literature in 1913 for his collection of poems, Gitanjali, making him the first non-European to receive this honor.

**Statement 2 is correct:** He founded Visva-Bharati University in Santiniketan, West Bengal, with a vision to foster intercultural understanding and education.

**Statement 3 is not correct:** While Tagore was a vocal critic of colonialism and an advocate for social reform, his involvement in the nationalist movement was more intellectual and cultural than actively participating in protests.

7. (b)

**Context:** Recently, Rabindranath Tagore's death anniversary was observed.

#### Rabindranath Tagore

- He passed away at the age of 80 on August 7 in 1941.
- He was the first non-European poet to win the Nobel Prize for literature. He won it for the English translation of "**Gitanjali**", a collection of poems in 1913.
- Tagore has the rare honour to write a national anthem for the two countries — India's 'Jana Gana Mana' and Bangladesh's 'Amar Shonar Bangla'.
- He led a protest against the decision of British viceroy Curzon to divide Bengal on religious grounds and urged Hindus and Muslims to tie rakhis on each other's wrists to express harmony and solidarity among each other.
- He renounced his Knighthood in protest against the horrifying Jallianwala Bagh massacre.

8. (c)

On August 8, 1942, at the Gwalior Tank Maidan in Mumbai, Gandhi issued his famous call to "Do or Die."

#### How the Quit India Movement unfolded?

- **August Offer:** In August 1942, the Viceroy issued an "August Offer" in an attempt to pacify Indians. However, both the Congress and the Muslim League rejected it. The dissatisfaction with British rule intensified.
- **Gandhi's Call:** At a Congress Working Committee meeting in Wardha, Gandhi revealed his plan for **Individual Civil Disobedience**.
  - **Satyagraha**—the weapon of truth and nonviolent resistance—once again gained popularity as the means to challenge British authority.
- **Do or Die:** On August 8, 1942, at the Gwalior Tank Maidan in Mumbai, Gandhi issued his famous call to "Do or Die."
  - The All-India Congress Committee demanded an "orderly British withdrawal" from India. The Quit India Movement was born.

9. (c)

**In News:** Recently, the Uttar Pradesh government has inaugurated the '**Kakori Train Action Centenary Festival**' in Lucknow marking the **100th anniversary of the Kakori Train Action** and to educate youths and schoolchildren.



- The train robbery at **Kakori, near Lucknow** was the **Hindustan Republican Association (HRA's)** first major action, in **August 1925**.
- The **Number 8 Down Train**, chugging between **Shahjahanpur and Lucknow**, carried more than just passengers. It bore **treasury bags, laden with taxes collected from Indians**, destined for the British government's coffers.
- It was led by **Ram Prasad Bismil and Ashfaqullah Khan**, who decided to intercept this moving symbol of colonial exploitation.
- As the train approached Kakori, one of the revolutionaries, **Rajendra Lahiri**, pulled the emergency chain, halting the locomotive, and looted only what they believed rightfully belonged to their compatriots—about ₹8000.

#### 10. (c)

**In News:** The birth anniversary of Dr Vikram Sarabhai is celebrated every year on August 12.

- Vikram Sarabhai was born on August 12, 1919 at Ahmedabad in an affluent family of progressive industrialists.
- Known as the Father of the Indian Space Program.
  - Initiated the **Indian Space Programme in 1960** with a vision of leveraging space technology for national development.
  - Indian Space Research Organisation (ISRO) was formally established on August 15, 1969.
  - **Worked with Dr. Homi Jehangir Bhabha**, the father of India's nuclear science program, set up the first rocket launching station in India.
- **Awards and Honours:** Shanti Swarup Bhatnagar Award (1962).
  - Padma Bhushan (1966).
  - Padma Vibhushan (posthumous, 1972).
  - The Vikram Sarabhai Space Centre (VSSC) in Thiruvananthapuram is named in his memory.
  - The Dr. Sarabhai Crater on the Moon was named in his honour in 1974.
- Chairman of the Atomic Energy Commission (1966).

#### 11. (d)

**Context:** Gotipua child artistes, who experience the world as their stage, face an uncertain future when they hit puberty.

##### Gotipua dance

- It is a traditional dance form in the state of **Odisha**, and the precursor of Odissi classical dance.
- The dance is **executed by a group of boys** who perform acrobatic figures inspired by the life of Radha and Krishna.
  - They **dress as women** to praise Lord Jagannath and Lord Krishna.

#### 12. (b)

**Context:** President Droupadi Murmu paid floral tributes to V.V. Giri (former President of India) on his birth anniversary.

##### Varahagiri Venkata Giri

- He was born on August 10, 1894, in Berhampur, Odisha.
- He served as the fourth President of India, holding the office from August 24, 1969, to August 24, 1974. He was the **first president** to be elected as an independent candidate.
- He is **known for his contributions** to the labor movement and his strong advocacy for worker's rights.
- Recipient of the Bharat Ratna 1975.

## 13. (b)

**Kolattam Dance**

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

**Seethakali**

- Seethakali is believed to have originated at Perinad in Kollam district of **Kerala**.
- It is a centuries-old **Dravidian dance form** which is a blend of songs, storytelling and fast movements.
- This art form was first performed some 150 years back by the people of **Vedar** and **Pulayar** communities. The folk art form was a part of **Onam festivities** in the past.

**Gotipua dance**

- It is a traditional dance form in the state of **Odisha**, and the precursor of Odissi classical dance.
- The dance is **executed by a group of boys** who perform acrobatic figures inspired by the life of Radha and Krishna.
  - They **dress as women** to praise Lord Jagannath and Lord Krishna.

## 14. (b)

**Context:** Recently, Khudiram Bose's death anniversary was observed.

**Khudiram Bose (3 December 1889 – 11 August 1908)**

- He was one of the youngest revolutionaries of India.
- He joined a group named 'Anushilan Samiti', became a volunteer at the age of 15, and was arrested for distributing pamphlets against British rule in India.
- In 1905, when Bengal was partitioned, he actively participated in protests against the British.
- He is most remembered for his attempt to assassinate the British judge, Magistrate Douglas Kingsford, which ultimately led him to be sentenced to death at the young age of 18.

## 15. (a)

**In News:** Freedom fighter Madame Bhikaji Cama was remembered on her death anniversary (13th August).

**Statement 1 is correct:** She is recognized as the first person to hoist an early version of the Indian flag in Stuttgart, Germany, in 1907.

**Statement 2 is correct:** She co-founded the Paris Indian Society (also known as Bharat Mandal) in 1905.

**Statement 3 is not correct:** She launched the Paris edition of "Bande Mataram," not the London edition.

## 16. (c)

**Hampi**

- **Hampi**, the capital of the Vijayanagara Empire and a UNESCO World Heritage Site is located on the bank of **Tungabhadra river**.
- **Varanasi** is located on the bank of river Ganga.
- **Madurai**, famous for the Meenakshi temple, is located on the bank of **river Vaigai**.

17. (b)

**Context:**

- PM Modi paid homage to the revered philosopher, thinker, and spiritual leader Sri Aurobindo, on his **152nd birth anniversary**.

**Literary works of Sri Aurobindo**

- **The Life Divine**, which deals with the philosophical aspect of Integral Yoga.
- **Synthesis of Yoga**, which deals with the principles and methods of Integral Yoga.
- **Savitri: A Legend and a Symbol**, an epic poem.

**Literary Work of Lokmanya Tilak**

- He published **The Orion or Researches into the Antiquity of the Vedas (1893)** and **The Arctic Home in the Vedas (1903)**.
- In the **Mandalay jail**, he wrote the **Srimad Bhagavadgita Rahasya (Secret of the Bhagavadgita)**, an original exposition of the most sacred book of the Hindus.

18. (b)

**Statement 1 is not correct:** The Param Vir Chakra is the highest military decoration awarded for acts of exceptional courage and bravery displayed in the presence of the enemy. The Ashoka Chakra is the highest peacetime military decoration.

**Statement 2 is correct:** The Kirti Chakra and Shaurya Chakra are indeed peacetime gallantry awards.

**Statement 3 is not correct:** Gallantry Awards are announced twice a year - on Republic Day and Independence Day.

19. (a)

**News:** The birth anniversary of India's **sixth prime minister Rajiv Gandhi** is observed as **Sadbhavana Diwas or Harmony Day** every year on August 20 in the country.

**About:**

- '**Sadbhavana**' in English means **goodwill**.
- It is dedicated to the cause of encouraging peace, national integration, and communal harmony among all religions in the country.
- The day was first observed in **1992**, more than a year after Rajiv Gandhi was assassinated in a suicide bomb attack in Tamil Nadu.
- Rajiv Gandhi became the **youngest Prime Minister of India** when he assumed the post at the **age of 40**.
- He was posthumously awarded country's highest civilian honour, **Bharat Ratna in 1991**.

20. (b)

**In News:** Recently, a large group of **Dhangars** demanded a '**grazing corridor**' for their sheep and goats in **Maharashtra's** Buldhana district.

- The Dhangars are a community of shepherds with a rich cultural heritage.
- They reside not only in **Maharashtra** but also in other states like **Gujarat, Karnataka, and Andhra Pradesh**.
- The Dhangars are currently listed under **Maharashtra's Vimukta Jati and Nomadic Tribes (VJNT) category**.

21. (a)

**Context:** Recently, Madan Lal Dhingra's death anniversary (August 17) was observed.

**Madan Lal Dhingra**

- He was born on 18 September 1887 in Amritsar.
- He went to Britain for higher studies, where he came in contact with Shyamji Krishnavarma and Veer Savarkar.
- He took part in revolutionary activities in Britain for the cause of Indian independence.
- He was hanged to death on August 17, 1909 for killing British official Curzon Wylie.

**22. (d)**

**Context:** Shivaram Hari Rajguru's birth anniversary (August 24) was observed.

**Shivaram Hari Rajguru**

- He was born on 24th August 1908 in Pune (Maharashtra).
- He was a member of the Hindustan Socialist Republican Association (HSRA), a revolutionary organization that believed in armed struggle against British colonial rule in India.
- On 23rd March, 1931, Bhagat Singh, **Rajguru** and Sukhdev were hanged to death. They were given the death sentence in the **Lahore conspiracy case**.

**23. (b)**

**Statement 1 is not correct: India has six classical languages** — Tamil, Sanskrit, Telugu, Kannada, Malayalam, and Odia.

- Tamil was declared a classical language in 2004, Sanskrit in 2005, Kannada in 2008, Telugu in 2008, Malayalam in 2013, and Odia in 2014.

**Statement 2 is correct:** All the Classical Languages are listed in the Eighth Schedule of the Constitution.

**24. (a)**

**Statement 1 is correct.** The Eighth Schedule recognizes the following **22 languages**:

- Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, **Nepali**, Odia, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, **Urdu**, Bodo, Santhali, Maithili and Dogri are the 22 languages presently in the Eighth Schedule to the Constitution.

**Statement 2 is not correct:** Of these languages, 14 were initially included in the Constitution. Subsequently, Sindhi was added in 1967; **Konkani, Manipuri and Nepali were added in 1992**; and Bodo, Dogri, Maithili and Santali were added by the 92nd Amendment Act of 2003.

**25. (b)****Jujutsu: the 'gentle art'**

- A family of **martial arts** originating in Japan, jujutsu translates to "gentle art" — "ju" means "soft/supple/gentle" and "jutsu" means "art/technique". Jiu-jitsu is a somewhat inaccurate (in terms of pronunciation), albeit popular Romanisation of the Japanese word.
- It is believed that samurai warriors developed various grappling and self-defence techniques for situations in which they lost their weapons (the legendary katana swords) during battle.
- **Aikido is an offshoot of jujutsu.** It was developed by **martial artist** Morihei Ueshiba in the early 20th century, which makes it among the youngest of Japan's many martial arts. Aikido literally means the "way of harmonising energy", and is different from most other martial arts.



# ECONOMY

1. Which one of the following organisations proposed the '3i Strategy' to escape the middle-income trap?
  - (a) World Bank
  - (b) International Monetary Fund (IMF)
  - (c) World Economic Forum (WEF)
  - (d) Organisation for Economic Co-operation and Development (OECD)
2. Consider the following statements:
  1. Aluminum is the most abundant metallic element in the Earth's crust.
  2. India is the 2nd Largest Aluminium Producer in 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
3. With reference to India's aquaculture sector, which of the following statements is/are correct?
  1. India is the largest fish and aquaculture-producing country in the World.
  2. Frozen shrimp is the largest exported marine product from India.Select the correct answer using the code given below:
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
4. Which of the following is correct regarding the Cooperative Banks?
  - (a) They belong to their members who are both the owners and customers of the bank.
  - (b) It operates on the principle of "one person, one vote" in decision-making.
  - (c) Along with lending, these banks also accept deposits.
  - (d) All of the above.
5. Consider the following statements:
  1. India is the largest producer of Fox nuts in the world.
  2. Maharashtra is the largest producer of foxnut 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
6. Which of the following statements about geothermal energy in India is/are correct?
  1. India has a large potential for geothermal energy due to its location on a tectonic plate boundary.
  2. The Puga Valley in Ladakh is the most promising geothermal site in India.
  3. Geothermal energy is a baseload source of energy, meaning it can provide a continuous supply of electricity.

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

7. With reference to Infrastructure Investment Trusts (InvITs), consider the following statements:

1. InvITs are regulated by the Securities and Exchange Board of India (SEBI).
2. Income from InvITs is tax-free in the hands of investors.
3. InvITs can be classified as borrowers under the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act (SARFAESI) Act.

Which of the above statements is/are correct?

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

8. 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 Prime Minister of India 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

9. With reference to the Bad Banks, which of the following statements is/are correct?

1. Bad banks are Asset Reconstruction Companies that buy bad loans from commercial banks.
2. Bad banks do not undertake deposits, lending or other usual banking operations.

Select the correct answer using the code given below:

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

10. With reference to the Coffee Production in India, consider the following statements:

1. India became the world's sixth largest coffee grower during 2022-2023.
2. Karnataka is the largest coffee producing state 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

11. Consider the following statements:

1. Repo rate is the rate of interest at which commercial banks in India borrow money from the Reserve Bank of India.
2. When faced with high levels of inflation, the Reserve Bank of India increases the reverse repo rate.

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 Cotton Cultivation in India, consider the following statements:

1. India is the only country which grows all four species of cotton.
2. India is the 3rd largest consumer of cotton in the world.
3. Cotton is grown in the Punjab, Haryana and Rajasthan in India.

How many of the statements given above are correct?

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

13. Which of the following is the chief characteristic of 'mixed farming'?

- (a) Cultivation of both cash crops and food crops  
(b) Cultivation of two or more crops in the same field  
(c) Rearing of animals and cultivation of crops together  
(d) None of the above

14. Which of the following statements correctly describes the relationship between bond yield and bond price?

- (a) Bond yield and bond price move independently of each other.  
(b) Bond yield is directly proportional to bond price.  
(c) Bond yield and bond price are inversely related.  
(d) Bond yield is unaffected by changes in bond price.

15. The Geographical Indication (GI) tagged Purandar Figs, recently seen in the news, belong to which of the following Indian States?

- (a) Madhya Pradesh (b) Karnataka  
(c) Chhattisgarh (d) Maharashtra

16. With respect to the establishment and functioning of Regional Rural Banks (RRBs) in India, which of the following statements is/are correct?

1. The Narasimham Working Group (1975) recommended the establishment of RRBs.
2. RRBs are jointly owned by the Central Government, State Governments, and Public Sector Banks.
3. RRBs are regulated by the National Bank for Agriculture and Rural Development (NABARD) and supervised by the Reserve Bank of India (RBI).

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

17. With reference to the Eri silk, which of the following statements is/are correct?

1. It is known as the world's only vegan silk as the moth inside the cocoon is not killed.
2. It is a Geographical Indication (GI) product of Tamil Nadu.

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 the Foreign portfolio investment (FPI), which of the following statements is/are correct?

1. It provides the investor with direct ownership of a company's assets.
2. FPI holdings exclude Mutual funds, and Exchange-traded funds (ETFs).

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. With reference to the Pharmaceutical Industry of India, which of the following statements is/are correct?
1. The industry in India is the third largest in the world in terms of value.
  2. The industry contributes to around 7.5% of India's Gross domestic product (GDP).
- Select the correct answer using the code given below:
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
20. With reference to the 'Payment Passkey Service', consider the following statements:
1. It was launched by the National Payments Corporation of India (NPCI).
  2. It replaces traditional passwords by leveraging biometric authentication methods.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
21. Which of the following statements is correct about the Vadhvan Port?
- (a) It will be Maharashtra's first major port.
  - (b) It will be developed under the Indian Port Act, of 1908.
  - (c) Jawaharlal Nehru Port Authority (JNPA) holds a 26% share in the project.
  - (d) Vadhvan Port will be developed based on the landlord port model.
22. Which among the following are the Growth Drivers of the Fintech Sector in India?
1. Demography
  2. Increasing internet & smartphone penetration
  3. Digital Infrastructure
  4. Financial Inclusion Initiatives by the Government
- Select the correct answer using the code given below:
- (a) 1, 2 and 3 only (b) 2 and 3 only  
(c) 2, 3 and 4 only (d) 1, 2, 3 and 4

## EXPLANATIONS

### 1. (a)

**In News:** According to the **World Bank**, more than 100 countries — including China, India, Brazil, and South Africa — face serious obstacles that could hinder their efforts to become high-income countries in the next few decades.

### 3i Strategy

- To escape the middle-income trap, the World Bank proposes a pragmatic '**3i Strategy**':
- **Investment (1i):** Low-income countries should focus primarily on policies that encourage investment. Building infrastructure, improving education, and attracting foreign direct investment are crucial steps.
- **Infusion (2i):** As countries attain lower-middle-income status, they need to diversify their strategies. This phase involves adopting technologies from abroad and spreading them across the economy. Innovation becomes essential.
- **Innovation (3i):** At the upper-middle-income level, countries must embrace innovation. This means fostering research and development, promoting entrepreneurship, and creating an ecosystem that encourages creativity.



2. (b)

**News:** India is the **2nd largest Aluminium producer**, 3rd largest lime producer and 4th largest iron ore producer in the world.

**Aluminum (Al)**

- Its atomic number is 13 and is the **second most abundant metallic element** in the Earth's crust after silicon.
- It weighs about one-third as much as steel or copper; is malleable, ductile, and has excellent corrosion resistance and durability.
- It is widely used in transportation, packaging, construction, and electrical transmission lines.

3. (b)

**In News:** India's seafood exports have increased from Rs. 46,662.85 Crore in 2019-20 to Rs. 61043.68 Crore in 2023-24 registering a growth of 30.81%.

**About:**

- India is the **third-largest** fish and aquaculture-producing country. It accounts for **7.96%** of the total global fish production. The industry employs more than **28 million** people in India.
- India mainly exports frozen shrimps, fish, cuttlefish, squids, dried items, and live and chilled items.
  - Out of these, **frozen shrimp is the largest exported marine product** contributing to more than **40%** of the total quantity and about **67.22%** of the total export value.

4. (d)

**In News:** RBI revises NPAs provision norms for co-op banks to ensure uniformity.

**What are Cooperative Banks?**

- Cooperative Banks refer to those financial institutions under the Banking System in India that operate on the **principles of cooperation and mutual benefit** for their members.
- They belong to their members who are **both the owners and customers** of the bank.
- They operate on the principle of **"one person, one vote"** in decision-making. **Along with lending**, these banks also accept deposits.

5. (a)

**Statement 1 is correct:** Makhana (in Hindi) Fox nut & Gorgon Nut ( in English) & Euryale ferox (Biological name), is a high in demand **aquatic crop**, belonging to the Family of **'Nymphaeaceae'**.

- Although the crop is cultivated in **different parts of the world**, **India** is home to nearly **70-80%** of the global produce.

**Statement 2 is not correct:** Bihar boasts of over **80% of the Makhana production of the country**.

- Districts and cities including Darbhanga, Madhubani, Saharsa, Katihar, Purnea, Supaul, Kishanganj, Araria and Sitamari are major producers of Makhana.

6. (d)

**In News:** India has identified approximately 10,600 MW of geothermal power potential, according to the Geological Survey of India (GSI).

**Statement 1 is correct:** India's location on the Indian tectonic plate, which is constantly moving and colliding with the Eurasian plate, creates conditions favorable for geothermal activity.

**Statement 2 is correct:** The Puga Valley in Ladakh has been identified as a high-potential geothermal site with hot springs and geysers.

**Statement 3 is correct:** Geothermal energy is a reliable base load source, providing electricity 24/7 regardless of weather conditions. Geothermal energy is renewable and produces minimal greenhouse gas emissions compared to fossil fuels.

7. (a)

**Statement 1 is correct:** InvITs are a type of investment vehicle that pool money from various investors (individuals and institutions) to invest in infrastructure projects. They operate similarly to mutual funds. InvITs are regulated by the Securities and Exchange Board of India (SEBI), which sets rules and regulations governing the formation and operation of InvITs.

**Statement 2 is not correct:** The income earned from InvITs is treated as regular income and is taxable according to the investor's income tax slab.

**Statement 3 is correct:** InvITs are considered borrowers under the SARFAESI Act, which means that in case of default, lenders can initiate recovery proceedings against the trust's assets.

8. (a)

#### 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
- **Dispute resolution:** The Council also serves as a platform to resolve disputes between the Centre and the States or among the States themselves on GST-related matters.
- The Centre has one-third of the total voting power, while the States collectively have two-thirds.

9. (c)

#### What are Bad banks?

- Bad banks are **Asset Reconstruction Companies** that buy bad loans from commercial banks, manage them, sell them in the market and recover the money to liquidate the transferred assets.
- Unlike commercial banks, bad banks **do not undertake deposits, lending** or other usual banking operations.

10. (b)

**Statement 1 is not correct:** India became the **world's eighth largest coffee** grower during 2022-2023.

- Indian coffee is **one of the best coffees** in the world owing to its high quality and pertains to being premium in the international markets. India produces two **types of coffee: Arabica and Robusta**.

**Statement 2 is correct:** **Karnataka accounts for 70%** of the country's total coffee production, while Kerala is the second-largest producer with a contribution of 23%.

- Tamil Nadu is the third-largest producer with 5% of India's total coffee production.

**11. (c)**

**Context:** In its first meeting after the Union Budget, the Reserve Bank of India's Monetary Policy Committee (MPC) decided to keep the policy repo rate unchanged at 6.50% for the ninth consecutive time.

**What is the repo rate?**

- Repo rate is the rate of interest at which commercial banks in India borrow money from the Reserve Bank of India (RBI).
- Commercial banks are required to deposit securities such as government bonds or treasury bills as collateral to avail these loans from the central bank of the country.

**What is the reverse repo rate?**

- Reverse repo rate is the rate at which the central bank, the RBI in our case, borrows money from the commercial banks when there is excess liquidity in the market.
- This aims to absorb the liquidity in the market, which helps restrict the borrowing power of the investors.
- When faced with high levels of inflation, the RBI increases the reverse repo rate, thus encouraging banks to park more funds with the RBI.

**12. (b)**

**Statement 1 is correct:** India is the only country which grows all four species of cotton G. Arboreum & G. Herbaceum (Asian cotton), G. Barbadense (Egyptian cotton) and G. Hirsutum (American Upland cotton).

**Statement 2 is not correct:** India is having 2nd place in the world with estimated production of 5.84 Million Metric Tonnes during cotton season 2022-23 i.e. 23.83% of world cotton production.

- India is also the 2nd largest consumer of cotton in the world with estimated consumption of 22.24% of world cotton consumption.

**Statement 3 is correct:** Majority of cotton production comes from 9 major cotton growing states, which are grouped into three diverse agro-ecological zones, as under:

- *Northern Zone* - Punjab, Haryana and Rajasthan
- *Central Zone* - Gujarat, Maharashtra and Madhya Pradesh
- *Southern Zone* - Telangana, Andhra Pradesh and Karnataka.
- Apart from the above the cotton is also grown in the state of Odisha and Tamil Nadu.

**13. (c)**

Mixed farming is an agricultural system where farmers integrate both crop production and livestock rearing on the same farm. This system allows for efficient utilization of resources, as animal manure can be used as fertilizer for crops, and crop residues can be used as fodder for animals.

**14. (c)**

Bond yield represents the return on the capital invested in a specific bond. It has an inverse relationship with the bond price, meaning that as the price of a bond rises, its yield falls, and vice versa. This relationship is essential in the bond market, as changes in yield affect the appeal of bonds to investors.

**15. (d)****Context:**

- The Agricultural and Processed Food Products Export Development Authority (APEDA) has facilitated the export of India's first ready-to-drink **fig juice**, made from GI-tagged Purandar Figs, to Poland.

**Purandar Figs**

- It is grown in the Purandar taluka of **Maharashtra's Pune district** and is known to be one of India's finest figs.
- It has high pulp content and a rich source of vitamins & minerals. Also, it has an excellent sweet taste and an attractive **violet colour**.
- These specialties are attributed to the climatic factors, red-black soil & salt-free well irrigation technique followed in the Region.
- In **2016**, it was given the Geographical Indication (GI) tag.

**16. (b)**

**Statement 1 is correct:** The Narasimham Working Group (1975) did recommend the establishment of RRBs to cater to the specific banking and credit needs of rural areas.

**Statement 2 is correct:** The ownership structure of RRBs involves a partnership between the Central Government, State Governments, and Sponsoring Commercial Banks (not necessarily Public Sector Banks).

**Statement 3 is not correct:** While NABARD provides supervisory guidance to RRBs, the primary regulatory authority for RRBs is the Reserve Bank of India (RBI). They function as scheduled commercial banks and are subject to RBI regulations.

**17. (a)****Eri silk**

- Eri silk is known as the **world's only vegan silk**, where, unlike other silks, the moth inside the cocoon is not killed. Instead, the **moth naturally exits the cocoon**, leaving it behind for use.
  - Hence it is also known as **Ahimsa silk**.
- The product is found mainly in **North East India** and some parts of China and Japan.
  - It is a **Geographical Indication (GI) product of Assam**.

**18. (d)****Foreign portfolio investment (FPI)**

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

**19. (d)****Pharmaceutical Sector of India**

- The pharmaceutical industry in India is currently valued at **\$50 Bn**.
- **Major segments of industry** include generic drugs, OTC medicines, bulk drugs, vaccines, contract research & manufacturing, biosimilars and biologics.
- The Pharmaceutical industry in India is the third largest in the world in terms of volume and **14th largest in terms of value**.
- The Pharma sector currently contributes to around **1.72% of the country's GDP**.

20. (b)

**Statement 1 is not correct:** Recently, **Mastercard** chose India for the global launch of **Payment Passkey Service**, recognising its tech-savvy population and vibrant e-commerce landscape.

**Statement 2 is correct:** **Passkeys** replace traditional passwords by leveraging biometric authentication methods—such as facial recognition, fingerprints, or swipe patterns—across all your devices.

- It combines the phone's biometrics (like fingerprint or face unlock) with robust encryption.
- **Key Creation:** When one signs into an account, its **device generates a pair of keys—one shared with the website and one private on your device.**
- This dynamic duo ensures secure access without the hassle of passwords.

21. (d)

**In News:** PM Modi lays foundation stone of Vadhvan Port project.

**About:**

The Vadhvan Port project, aimed at establishing **Maharashtra's third major port**, was initiated through a Memorandum of Understanding (MoU) **signed in 2015**. The project is a **joint effort between the Jawaharlal Nehru Port Authority (JNPA) and the Maharashtra Maritime Board**, with the JNPA **holding a 74% share** and the Maharashtra Maritime Board holding a 26% share. The port will be **developed based on the landlord port model**. Under it, private players take over the operational aspects, while the port authority acts as a regulator and landlord.

**Significance**

- The port will improve India's connectivity with Central Asia and Russia and will boost trade through the International North-South Transport Corridor (INSTC) and India-Middle East-Europe Economic Corridor.

22. (d)

The fintech sector in India refers to the **use of technology to enhance, innovate, and streamline financial services.**

**Growth Drivers**

- **Digital Infrastructure: Open Application Programming Interface (API) Platforms** i.e. Aadhar, UPI, Bharat Bill Payments, GSTN.
- **Technological Innovation:** Implementation of new business models driven by technologies such as Artificial Intelligence and Machine Learning
- **Increasing internet & smartphone penetration:** India already has the 2nd highest number of smartphone users globally and is the 2nd largest Internet user market.
- **Favourable Demographics:** 68% of India's population is young and 55% of its population is in the age group of 20-59 (working population) in the year 2020 and is estimated to reach 56% of the total population by 2025.
- By 2030, India will add 140 Mn middle-income and 21 Mn high-income households which will drive the demand and growth of Indian FinTech space.
- **Financial Inclusion Initiatives:** Financial inclusion programmes such as PMJDY, DAY-NRLM, Direct Benefit Transfer, Atal Pension Yojana among others have accelerated the digital revolution and brought more citizens, especially in rural areas, within the ambit of digital financial services.



# INDIAN POLITY & CONSTITUTION

1. Consider the following statements with reference to the Union Public Service Commission (UPSC):
  1. It is a constitutional body which conducts more than 10 examinations every year, including the Civil Services Examination.
  2. Members of the UPSC shall hold office for a term of five years or until they attain the age of sixty-five years, whichever is earlier.Which of the statements given above is/are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
2. Consider the following statements:
  1. The President of India is also the head of the government.
  2. Both the Supreme Court and High Courts can adjudicate disputes between States and the Center.Which of the statements given above is/are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
3. With reference to the Parliamentary Privileges to the Member of the Parliament (MP), consider the following statements:
  1. Article 105 in the Indian Constitution explicitly mentions only two kinds of privileges.
  2. The Code of Civil Procedure, 1908, grants freedom from arrest and detention of members under a civil process.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 Draft Disaster Management (Amendment) Bill, 2024 introduces a new Section 60A that empowers the central and state governments to:
  - (a) Increase budgetary allocation for disaster management.
  - (b) Direct individuals to take necessary actions for disaster mitigation (with penalties for non-compliance).
  - (c) Appoint new members to the NDMA and SDMA.
  - (d) Review the disaster preparedness plans more frequently.
5. With reference to the disaster management in India, consider the following statements:
  1. National Disaster Management Authority (NDMA) is the apex body in India which is headed by the Union Home Minister.
  2. The Disaster Management Division falls under the Union Ministry of Home Affairs.

Which of the statements given above is/are correct?

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

6. With reference to the 'Aldermen in Delhi's Municipal Corporation, consider the following statements:

1. They are individuals nominated by the Lieutenant Governor of Delhi under the Delhi Municipal Corporation Act, 1957.
2. They do not have voting rights in Municipal Corporation of Delhi (MCD) meetings.

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 Declaration of National Disaster in India, consider the following statements:

1. There is no provision, executive or legal, to declare a natural calamity as a national calamity.
2. When a calamity is declared to be of "rare severity"/"severe nature", support to the state government is provided at the national level.

Which of the statements given above is/are correct?

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

8. With reference to the Transplantation of Human Organs in India, consider the following statements:

1. The Transplantation of Human Organs and Tissues Act, 1994, allows harvesting of organs from brain-dead patients only.
2. The primary legislation governing organ donation in India is the Transplantation of Human Organs and Tissues Act (THOA), 1994.

Which of the statements given above is/are correct?

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

9. With reference to the India's Policy on Refugees, consider the following statements:

1. India is a signatory to the 1967 Protocol relating to the Status of Refugee.
2. Recently, India has established a national refugee policy.

Which of the statements given above is/are correct?

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

10. Consider the following statements with reference to the Joint Parliamentary Committee (JPC):

1. It has members from both the Houses and from both the ruling parties and the opposition.
2. Its recommendations are binding on the government.

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. Indra Sawhney case is related to which of the following?
- (a) Reservation in India (b) Basic Structure Doctrine  
(c) Legality of Fundamental Rights (d) None of the above
12. Which of the following statements is correct regarding Article 67 of the Indian Constitution?
- (a) It provides certain rights and immunities to members of Parliament.  
(b) It details the composition and representation of the Rajya Sabha.  
(c) It outlines the procedure for the removal of the Vice President of India.  
(d) It mentions Special procedure in respect of Money Bills.
13. With reference to the Senior Advocates, consider the following statements:
1. Section 16 of the Advocates Act, 1961 prescribes two different classes of advocates: senior advocates and other advocates.
  2. The minimum age to apply for the 'senior advocate' designation is 45 years without any relaxation.
- 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 the Cabinet Secretary of India is **not** correct?
- (a) The Cabinet Secretary is appointed by the Appointments Committee of the Cabinet (ACC) based on seniority and merit.  
(b) The Cabinet Secretary is responsible for the administration of the Government of India (Allocation of Business) Rules, 1961 and the Government of India (Transaction of Business) Rules, 1961.  
(c) The Cabinet Secretary exercises direct authority over the working departments of the Union Government.  
(d) The Cabinet Secretary is the ex-officio Chairman of the Civil Services Board (CSB).
15. With reference to the Model Code of Conduct (MCC), consider the following statements:
1. These are a set of statutory norms laid under the Representation of the People Act, 1951.
  2. The MCC is operational from the date the election schedule is announced until the last day of polling.
  3. Certain provisions of MCC can be enforced by invoking certain corresponding provisions in other statutes.
- Which of the statements given above is/are correct?
- (a) 1 and 2 only (b) 3 only  
(c) 2 and 3 only (d) 1, 2 and 3
16. With reference to the Plea Bargaining in India, consider the following statements:
1. It is a practice whereby the accused forgoes his right to plead not guilty and demand a full trial and instead uses a right to bargain for a benefit.
  2. It is applicable to all criminal offences under Code of Criminal Procedure (CrPC).
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2



## EXPLANATIONS

1. (a)

**Context:** Former Union Health Secretary Preeti Sudan was appointed as the chairperson of the Union Public Service Commission (UPSC).

**About:**

- She is only the second woman to head the UPSC since R.M Bathew served as the chairperson from 1992 to 1996.

**UPSC**

- The UPSC is a **constitutional body**, mandated under Article 315-323, Part XIV of the Constitution of India.
- It was established in 1926 under the Government of India Act, 1919.
- It conducts more than **10 examinations every year**, including the Civil Services Examination.
- It is headed by a Chairman and it can have a maximum of 10 members.

**Appointment**

- As per Article 316, the Chairman and other members of the UPSC shall be **appointed by the President**.
- Members of the UPSC shall hold office for a term of **six years** or until they attain the age of sixty-five years, whichever is earlier.

2. (d)

**Both the statements are not correct: Executive Branch:** The President of India is the **ceremonial head of state**. The President's role is largely symbolic, but has important functions such as **appointing the Prime Minister and giving assent to bills passed by Parliament**.

- **Head of Government: The Prime Minister of India** is the real head of government and exercises executive power. The Prime Minister leads the **Council of Ministers**, who are responsible for the administration of various government departments and implementing policies.
- **Judicial Branch: Supreme Court:** The highest court in India, with the authority to interpret the Constitution, **adjudicate disputes between states and the center, and oversee the legality of laws and government actions**.
  - Each state or group of states has a High Court, which handles appeals from lower courts and issues related to state-level legal matters.
  - District Courts handle civil and criminal cases at the district level, and various specialized courts such as family courts, consumer courts, and labor courts.

3. (c)

**Both the statements are correct:** India lacks a law that defines what is a parliamentary privilege.

- **Article 105** in the Indian Constitution explicitly mentions **only two kinds of privileges, freedom of speech in the Parliament and the right to publish the house proceedings**.
- **The Code of Civil Procedure, 1908**, grants freedom from arrest and detention of members under a civil process during house proceedings or during the functioning of any of its committees.

4. (b)

**In News:** The Disaster Management (Amendment) Bill, 2024 is introduced in the Lok Sabha.

**Key Features of the Bill**

The Bill seeks to empower the National Disaster Management Authority (NDMA) and the State Disaster Management Authority (SDMA) to independently prepare disaster plans at their

respective levels, replacing the earlier framework that relied on plans made by the National Executive Committee and State Executive Committees. The Bill will grant statutory recognition to existing bodies like the National Crisis Management Committee and the High-Level Committee. The Bill proposes the establishment of a “State Disaster Response Force” by state governments. A new Section 60A will be added to empower both the Central and State Governments to direct individuals to take necessary actions or refrain from them to mitigate disaster impacts, with penalties for non-compliance not exceeding ₹10,000.

5. (b)

**In News:** Recently, Kerala has requested the Centre to declare Wayanad landslide a ‘National Disaster’ underscores the urgency of addressing natural calamities and their impact on vulnerable populations.

**Statement 1 is not correct**

- **National Disaster Management Authority (NDMA)** is the **apex body** in India, **headed by the Prime Minister**, for disaster management. It was established in **2005** under the **Disaster Management Act**, and the further establishment of the **National Disaster Response Force (NDRF)**.
- Its **primary role** is to formulate policies, plans, and guidelines related to disaster risk reduction and management.

**Statement 2 is correct**

- The **Disaster Management Division** of the **Ministry of Home Affairs** will provide support and monitor the utilisation of funds.
  - A **Calamity Relief Fund (CRF)** is set up, with the corpus **shared 3:1 between Centre and State**.
  - When resources in the CRF are inadequate, additional assistance is considered from the **National Calamity Contingency Fund (NCCF)**, funded **100% by the Centre**.

6. (c)

**In News:** Recently, the Supreme Court of India upheld the Delhi Lieutenant Governor (L-G)’s power to nominate aldermen.

**Statement 1 is correct**

- **Aldermen** are individuals nominated by the L-G under **Section 3 of the Delhi Municipal Corporation Act, 1957 (DMC Act)**.
- They must be above 25 years of age and possess special knowledge or experience in municipal administration.

**Statement 2 is correct**

- Although aldermen do not have voting rights in Municipal Corporation of Delhi (MCD) meetings, they serve on the Wards Committee within their respective zones, and play a crucial role in the MCD’s functioning.

7. (c)

**Both the statements are correct:** There is **no provision, executive or legal, to declare a natural calamity as a national calamity**.

- The existing guidelines of the **State Disaster Response Fund (SDRF)/ National Disaster Response Fund (NDRF)**, do not contemplate declaring a disaster as a ‘National Calamity.’
- When a calamity is declared to be of **“rare severity”/“severe nature”**, support to the **state government is provided at the national level**.

8. (b)

**Statement 1 is not correct: The Transplantation of Human Organs and Tissues Act, 1994,** allows harvesting of **organs from living donors or brain-dead patients** with the consent of family members.

**Statement 2 is correct:** The primary legislation governing organ donation in India is the **Transplantation of Human Organs and Tissues Act (THOA), 1994.**

- This act regulates the removal, storage, and transplantation of human organs and tissues for therapeutic purposes.
- It also aims to prevent commercial dealings in human organs.

9. (d)

**Both the statements are not correct: India is not a signatory to the 1951 UN Refugee Convention or the 1967 Protocol relating to the Status of Refugee.**

- India doesn't have a refugee policy or a refugee law.
- All foreign undocumented nationals are governed as per the provisions of The Foreigners Act, 1946, The Registration of Foreigners Act, 1939, The Passport (Entry into India) Act, 1920 and The Citizenship Act, 1955.
- As per the MHA foreign nationals who enter into the country **without valid travel documents are treated as illegal immigrants.**

10. (a)

News: The Waqf (Amendment) Bill, 2024 which seeks to amend the 1995 Waqf Act has been referred to a joint parliamentary committee (JPC) after facing strong objections from the Opposition parties.

**What is a Joint Parliamentary Committee (JPC)?**

- It is set up by the Parliament for a special purpose, like for the detailed scrutiny of a subject or Bill.
- It has members from both the Houses and from both the ruling parties and the opposition. It is dissolved after its term ends or its task has been completed.
- While the recommendations of a JPC have persuasive value, they are not binding on the government.

**How is a JPC set up?**

- A JPC is set up after one House of Parliament has passed a motion and the other has agreed to it.
- Members of the JPC are decided by the Parliament. The number of members can vary – there is no fixed number.

11. (a)

Mandal Commission Case: In 1992, SC in the Indra Sawhney case had ruled that reservation should not exceed 50%, barring certain extraordinary situations.

- Such as to provide reservations to communities which hail from far flung areas of the country and have been kept out of the mainstream of the society. This is not a geographical test but a social one.

12. (c)

**In News :** 50 Opposition MPs have signed a resolution for a no-confidence motion against Vice-President Jagdeep Dhankhar

- The Opposition accuses the Chairman of making personal remarks against members, violating Rule 238(2) of the Rajya Sabha, which prohibits personal charges against members.

- The resolution is being pursued under **Article 67(b) of the Indian Constitution**.
  - **Article 67(b)** of the Indian Constitution allows the removal of the Vice-President by a Rajya Sabha resolution passed by an effective majority, and agreed upon by the Lok Sabha with a simple majority.

**13. (a)**

**Statement 1 is correct: Section 16 of the Advocates Act, 1961** prescribes two different classes of advocates: senior advocates and other advocates.

- The designation of senior advocate is a **mark of excellence to advocates** who have distinguished themselves and have made a significant contribution to the **development of the legal profession**.

**Statement 2 is not correct:** The new guidelines prescribe the **minimum age as 45 years** to apply for the 'senior advocate' designation.

- This **age limit may, however, be relaxed** by the Committee for Designation of Senior Advocates, the CJI, or a Supreme Court judge, if they have recommended an advocate's name.

**14. (c)**

**In News:** The Appointments Committee of the Union Cabinet appointed TV Somanathan as the Cabinet Secretary of India for a tenure of two years, starting Aug 30, 2024.

**Statement c is not correct:** While the Cabinet Secretary plays a crucial role in ensuring inter-ministerial coordination and resolving differences among ministries, they do not have direct authority over the working departments. The Cabinet Secretary is considered 'primus inter pares' or 'first among equals' among the secretaries of the Union Government.

**15. (b)**

**Statement 1 is not correct:** The model code refers to a set of norms laid down by the Election Commission of India, with the consensus of political parties. It is not statutory. The purpose of these guidelines is to regulate political parties and candidates prior to elections, to ensure free and fair elections.

**Statement 2 is not correct:** The MCC is operational from the date that the election schedule is announced till the date that results are announced.

**Statement 3 is correct:** The MCC is not enforceable by law. However, certain provisions of the MCC may be enforced through invoking corresponding provisions in other statutes such as the Indian Penal Code, 1860, Code of Criminal Procedure, 1973, and Representation of the People Act, 1951.

**16. (a)**

**Statement 1 is correct: A "plea bargain"** is a practice whereby the accused forgoes his right to plead not guilty and demand a full trial and **instead uses a right to bargain for a benefit**.

- Plea bargaining was incorporated into the **Code of Criminal Procedure (CrPC) in 2005** with the expectation that it would streamline the judicial process by allowing accused persons to **admit guilt in exchange for leniency in sentencing**.

**Statement 2 is not correct:** It applies only to offences **punishable by up to seven years of imprisonment**, with further restrictions **excluding cases involving** crimes against women, children, or socio-economic offences.



# GEOGRAPHY

1. Which one of the following will comprise the Lithium Triangle?
- (a) Argentina, Brazil and Chile                      (b) Ecuador, Brazil and Argentina  
(c) Argentina, Bolivia and Chile                      (d) Ecuador, Bolivia and Colombia
2. Recently, the Vietnamese Prime Minister arrived in India for a three-day state visit. In context of the above statement, which of the following countries shares borders with Vietnam?
1. Myanmar    2. China  
3. Cambodia    4. Laos
- Select the correct answer using the codes given below.
- (a) 1 and 2 only    (b) 2, 3 and 4 only  
(c) 2 and 3 only    (d) 1, 2, 3 and 4
3. With reference to the Andaman and Nicobar Islands, which of the following statements is/are correct?
1. Eight Degree Channel separates the Andaman Islands from the Nicobar Islands.  
2. Port Blair, the capital city, is located in the North 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
4. The angle of repose is a crucial factor in landslide occurrence. Which of the following statements about the angle of repose is correct?
- (a) It is the steepest angle at which loose material remains stable.  
(b) It is always constant for all types of soil and rock.  
(c) It increases with the increase in water content.  
(d) It is not influenced by the size and shape of the particles.
5. Which among the following states are part of the Western Ghats?
1. Gujarat    2. Maharashtra  
3. Goa    4. Karnataka
- 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
6. Consider the following statements:
1. Lightning is a rapid and massive discharge of electricity in the atmosphere some of which is directed towards earth.  
2. The pre - monsoon season atmospheric conditions are quite conducive for formation of severe thunderstorms.  
3. Lightning was declared a state-specific disaster in Odisha in 2015.

How many of the statements given above are correct?

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

7. Which of the following states of India shares a border with Bangladesh?

1. Assam 2. Meghalaya  
3. Tripura 4. Manipur

Select the correct answer using the code given below:

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

8. Republic of Fiji, recently seen in the news, is made up of about 330 islands. It is located in

- (a) Northern Pacific Ocean (b) Southern Pacific Ocean  
(c) Northern Atlantic Ocean (d) Southern Atlantic Ocean

9. With reference to river Teesta, consider the following statements:

1. The source of river Teesta is the same as that of Brahmaputra.  
2. River Rangeet originates in Sikkim and it is a tributary of river Teesta.  
3. River Teesta flows into Bay of Bengal on the border of India and Bangladesh.

Which of the statements given above is/are correct?

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

10. Palk Strait, recently seen in news, is between which of the following countries?

- (a) India and Pakistan (b) India and maldives  
(c) India and Myanmar (d) India and Sri Lanka

11. Which of the following best describes isostasy?

- (a) A geological process that causes earthquakes.  
(b) A state of gravitational equilibrium between the Earth's crust and mantle.  
(c) A force that drives plate tectonics.  
(d) A type of volcanic eruption.

12. Which of the following statements about pyrocumulonimbus clouds is **NOT** true?

- (a) They can generate their own weather systems.  
(b) They are associated with intense fire events.  
(c) They always lead to heavy rainfall.  
(d) They can reach heights of 50,000 feet or more.

13. The 'Nankai Trough' sometimes appeared in the news, is located at:

- (a) United State of America (b) Japan  
(c) Australia (d) Maldives

14. Consider the following statements:

1. Antarctica contains about 90 percent of the world's ice.  
2. The Ross Ice Shelf and the Filchner-Ronne Ice Shelf are both part of Antarctica.

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 about Arecanut cultivation in India:
1. Karnataka is the largest producer of arecanut in India.
  2. Arecanut prefers a temperate climate with temperatures between 4°C and 40°C.
  3. Laterite and red loam soils are well-suited for arecanut cultivation.
- Which of the statements given above are correct?
- (a) 1 and 2 only (b) 1 and 3 only  
(c) 2 and 3 only (d) 1, 2 and 3
16. 'Gobekli Tepe', recently seen in the news, is an ancient site in
- (a) Turkey (b) Bangladesh  
(c) Mongolia (d) Timor Leste
17. With reference to the *St Martin's Island*, sometimes appeared in the news, consider the following statements:
1. It is located in the Bay of Bengal, close to the border between Bangladesh and Myanmar.
  2. The Arab merchants were among the first ones to settle on the island in the 18th Century.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
18. With reference to the Tungabhadra River, which of the following statements is/are correct?
1. The river forms the boundary between Karnataka and Andhra Pradesh.
  2. It joins the river Kaveri in Tamil Nadu.
- 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. With reference to the Solar Cycle, consider the following statements:
1. The solar cycle is the cycle that the Sun's magnetic field goes through approximately every 5 years.
  2. The beginning of a solar cycle is a solar minimum, or when the Sun has the least sunspots.
- 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 countries:
1. Ukraine
  2. Germany
  3. Italy
  4. Sweden
- Nord Stream Pipeline passes through the Exclusive Economic Zone (EEZ) of how many countries mentioned above?
- (a) Only one (b) Only two  
(c) Only three (d) All four
21. With reference to the Aravali range, consider the following statements:
1. Rajasthan occupies 30% of the range while other States Haryana, Delhi, and Gujarat have 70% share in the terrain.
  2. Guru Shikhar in Mount Abu is the highest peak of the range.

Which of the statements given above is/are correct?

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

22. Guam Island, recently seen in news, is a territory of which of the following nations?

- (a) China (b) United States of America  
(c) France (d) United Kingdom

23. With reference to the Waterspout, consider the following statements:

1. It is a large column of air and mist rotating over a water body with a speed of upto 500 km/hour.
2. It is a kind of tornado that typically lasts for around five minutes.

Which of the statements given above is/are correct?

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

24. Which of the following statements about the Kamchatka Peninsula is/are correct?

1. It is located in the easternmost part of Russia.
2. It is known for its active volcanoes and geysers, and is a UNESCO World Heritage Site.
3. The peninsula is bordered by the Sea of Okhotsk to the west and the Bering Sea to the east.

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

25. With reference to the South China Sea, which of the following statements is/are correct?

1. It is a crucial maritime gateway between the Pacific ocean and Indian Ocean.
2. Malacca Strait, the Choke point in the South China Sea, lies between Taiwan and Philippines.

Select the correct answer using the code given below:

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

26. Recently, Prime Minister (PM) Narendra Modi visited Poland which was the first visit of an Indian PM to the country in the past 45 years.

In context of the above statement, which of the following countries shares borders with Poland?

1. Ukraine
2. Russia
3. Germany
4. Belarus

Select the correct answer using the codes given below.

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

27. Consider the following statements regarding the Gumti River:

1. The Gumti River originates in the Longtharai Hills of Tripura and flows into Bangladesh, where it merges with the Brahmaputra River.
2. The Dumbur Dam on the Gumti River is used for irrigation and flood control in the Tripura region.

Which of the statements given above is/are correct?

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



28. With reference to the Marsyangdi River, consider the following statements:

1. It originates near the Annapurna massif in Nepal.
2. It is part of the Gandaki River system.

Which of the statements given above is/are correct?

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

29. Which of the following countries shares borders with Botswana?

1. Zambia
2. Angola
3. Namibia
4. South Africa
5. Egypt

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) 3, 4 and 5 only

30. Consider the following statements with reference to the Philadelphi (Salaheddin) Corridor.

1. It is situated along Gaza's border with Egypt.
2. It was built by the Israeli military when Gaza was under its direct occupation.

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 regarding Wular Lake:

1. Wular Lake is the largest freshwater lake in India.
2. The main source of water for Wular Lake is the Chenab River.
3. Wular Lake is a designated Ramsar Site.

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

32. Recently, the Arbaat Dam in eastern Sudan has collapsed following heavy rainfall, causing severe flooding that has devastated nearby villages.

In context of the above statement, which of the following countries shares borders with Sudan?

1. Somalia
2. Chad
3. Eritrea
4. Libya

Select the correct answer using the codes given below.

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

33. Which among the following are the conditions under which a cyclone is formed?

1. Warm Ocean Waters
2. Formation of High- Pressure System
3. Coriolis Effect

Select the correct answer using the code given below:

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

## EXPLANATIONS

1. (c)

**Context:**

- The Ministry of Mines scrapped the auction for the lithium block in Jammu and Kashmir's (J&K's) Reasi district for the second time, following weak investor response.
- **Chile, Australia, Argentina, Bolivia and China** contain most of the reserves discovered so far globally.
- **Argentina, Bolivia and Chile** are known as the 'Lithium Triangle' and contain **54%** of the world's Lithium reserves.

2. (b)

**News:** Recently, the Vietnamese Prime Minister arrived in India for a three-day state visit.

**About Vietnam**

- It is located on the Indochina peninsula in Southeast Asia.
- It has a long land border of 4,550 km, bordering **China** to the North, **Laos** and **Cambodia** to the West, and the Eastern Sea (South China Sea) of Pacific Ocean to the East.



3. (d)

**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**.

4. (a)

The angle of repose is essentially the maximum angle at which a pile of loose material can maintain its shape without sliding down. Factors like particle size, shape, and water content influence this angle, but the core concept remains the same. The small amount of moisture can increase cohesion and the angle of repose, excessive water content typically decreases the angle of repose by reducing friction and causing instability.

5. (d)

**Context:**

- The Central government issued the sixth iteration of a draft notification, declaring 56,825.7 sq km of the Western Ghats an ecologically sensitive area.

**Western Ghat**

- The Western Ghats are a **1,600-km** long mountain chain along the west coast of India running from the river Tapi in the north to Kanyakumari in the south.
- It covers **six states** — Gujarat, Maharashtra, Goa, Tamil Nadu, Karnataka and Kerala. About 60 percent of the mountain range is in Karnataka.

6. (c)

**All the statements are correct:** Scientifically, lightning is a **rapid and massive discharge of electricity** in the atmosphere, some of which is directed towards earth.

- It is a **giant spark of electricity** in the atmosphere **between clouds, the air, or the ground**.
- The atmospheric conditions are quite conducive for formation of severe thunderstorms **in the pre - monsoon season**.
- Lightning was declared a **state-specific disaster in Odisha in 2015**.
- Odisha is an eastern coastal state situated in the tropical zone, with its hot, dry climate presenting the perfect blend of conditions for lightning strikes.

7. (a)

**Context:** Sheikh Hasina has resigned as Bangladesh's Prime Minister and arrived in India following mounting protests.

**Indo-Bangladesh Border**

- India has a 4097 km border with Bangladesh.
- The Indo-Bangladesh border passes through West Bengal (2216.7 km), **Assam** (263 km), **Meghalaya** (443 km), **Tripura** (856 km) and Mizoram (318 km).
- The entire stretch consists of plain, riverine belts, hills and jungles, with hardly any natural obstacles.

8. (b)

**News:** President Droupadi Murmu arrived in Nadi, the Republic of Fiji, on a two-day official visit, marking the first ever trip by the President of India to Fiji.

**About:**

- The Republic of the Fiji Islands, in the southern Pacific Ocean, is located approximately 3 100 km northeast of Sydney, Australia, and approximately 5 000 km southwest of Honolulu, Hawaii.
- It is made up of about 330 islands and about 500 more tiny atolls, islets, and reefs.



9. (b)

**Statement 1 is not correct:** The Brahmaputra originates from the Angsi Glacier in Tibet, while the Teesta originates from the Pahunri Glacier in Sikkim.

**Statement 2 is correct:** The Rangit River indeed originates in Sikkim and is a major tributary of the Teesta.

**Statement 3 is not correct:** The Teesta river flows into the Bay of Bengal through Bangladesh, not on the border.

10. (d)

#### Palk Strait

- The Palk Strait is a strait between the Tamil Nadu state of **India** and the Jaffna District of the Northern Province of the island nation of **Sri Lanka**.



11. (b)

Isostasy refers to the balance between the Earth's crust and the underlying mantle, ensuring that the weight of land above sea level is compensated by an equivalent mass of crust below sea level. Processes like waning of ice sheets erosion, sedimentation, volcanism, etc. may disturb isostasy.

12. (c)

Pyrocumulonimbus clouds are actually notorious for producing very little rainfall, despite their ability to generate thunderstorms and lightning. This lack of precipitation can worsen fire conditions.

13. (b)

**In News:** Recently, Japan issued its first-ever 'megaquake advisory' of strong shaking and large tsunamis on the Nankai Trough, a subduction zone.

- **Nankai Trough** is an **underwater subduction zone**, is characterised by subduction of multiple geological units of the **Philippine Sea Plate** (the Kyushu-Palau Ridge, the Shikoku Basin, the Kinan Seamount Chain, and the Izu-Bonin Arc) **beneath the Eurasian Plate** in the southwest of Japan.
  - It accumulates tectonic stress which can cause a megaquake — an earthquake with a magnitude larger than 8.
- It sits between **Suruga Bay, in central Japan**, and the Hyuganada Sea in Kyushu to the south.
- Nankai Trough has a **history of producing such megaquakes** roughly every 100 to 150 years. They **often come in pairs**.

14. (c)

**Both the statements are correct:** Antarctica, the **world's southernmost and fifth largest continent**. Its landmass is almost wholly covered by a vast ice sheet.

- The continental contains about **90 percent** of the world's ice and **80 percent** of its fresh water.
- **Ice shelves, or ice sheets** floating on the sea, cover many parts of the Ross and Weddell seas.
  - These shelves—the Ross Ice Shelf and the Filchner-Ronne Ice Shelf—together with other shelves around the continental margins, fringe about **45 percent of Antarctica**.

15. (b)

**In News:** The Central Plantation Crops Research Institute (CPCRI) has issued an advisory to farmers to control '**kole roga**' (**fruit rot disease**) in arecanut plantations.

Arecanut is a commercially important crop, commonly known as betel nut or supari. It is an essential ingredient in the preparation of pan masala and other tobacco products.

**Statement 1 is correct:** Karnataka is indeed the largest producer of arecanut in India.

**Statement 2 is not correct:** Arecanut prefers a warm, tropical climate, not a temperate one. The ideal temperature range is between 14°C and 36°C.

**Statement 3 is correct:** Laterite and red loam soils, with good drainage, are suitable for arecanut cultivation. Arecanut can tolerate a wide range of rainfall, with a minimum requirement of 750 mm annually, not 1000 mm.

16. (a)

**Context:** Archaeologists at Göbekli Tepe, an ancient site in Turkey, have possibly discovered the world's oldest calendar, dating back nearly 13,000 years.

**About:**

- Göbekli Tepe, often referred to as the world's first temple, features a series of large stone pillars adorned with ornate carvings.
- These carvings have long puzzled researchers, but recent studies suggest they represent an ancient timekeeping system.
- The carvings on the pillars include a series of V-shaped symbols, each representing a single day. By counting these symbols, researchers identified a calendar of 365 days, divided into 12 lunar months with an additional 11 days.
- This system aligns closely with the modern solar calendar, indicating a sophisticated understanding of astronomy by the ancient people who created it long before the development of written language.

17. (c)

**In News:** Recently, **St Martin's Island of Bangladesh** was in controversy after the resignation of Former Bangladesh Prime Minister Sheikh Hasina.

**Statement 1 is correct**

- **St. Martin's Island** is located in the **northeastern region of the Bay of Bengal**, close to the **border between Bangladesh and Myanmar**.
  - It is about nine kilometres away from the **southern tip of Bangladesh's Cox's Bazar-Teknaf peninsula**.
- It is **Bangladesh's only coral island** — there are reefs from 10-15 km to the west-northwest — and is also a **breeding ground for sea turtles**.

**Statement 2 is correct**

- The island was once part of the **Teknaf peninsula (around 5,000 years ago)** but gradually got submerged into the sea.
- Around 450 years ago, the southern suburbs of present-day St Martin's Island resurfaced.
- The **Arab merchants** were among the **first ones to settle on the island** in the 18th Century.
  - The merchants initially named the island '**Jazira**' (meaning '**the island**' or '**the peninsula**') and later **changed it to 'Narikel Jinjira' or 'Coconut Island'**.
- **In 1900**, British India annexed the island **during a land survey**. By then, the island came to be known as **St Martin's Island**, named after then Deputy Commissioner of Chittagong Martin.

**18. (a)****Context:**

- A flood alert has been sounded downstream of the Tungabhadra dam in Karnataka's Koppal district after one of the 33 crest gates of the stone masonry dam across the Tungabhadra river was washed away.

**Tungabhadra River**

- **Origin:** The river derives its name from two streams i.e., the **Tunga and the Bhadra**, which rise in the Western Ghats.
- **Course:** The river, after the confluence of the two streams near Shimoga, runs for about 531 km and joins the river **Krishna in Andhra Pradesh**.
  - The river forms the **boundary between Karnataka and Andhra Pradesh**.

**19. (b)**

**Statement 1 is not correct:** The solar cycle is the cycle that the **Sun's magnetic field goes through approximately every 11 years**.

**Statement 2 is correct:** The beginning of a solar cycle is a **solar minimum**, or when the Sun has the least sunspots.

- Over time, solar activity—and the number of sunspots—increases.
- The middle of the solar cycle is the **solar maximum**, or when the Sun has the most sunspots.

**20. (b)**

**In News:** Almost two years after bombing of the Nord Stream pipelines under the Baltic Sea, it remains unclear who sabotaged the pipes.

**Nord Stream Pipeline**

- Nord Stream is a **twin pipeline system**, a **subsea export gas pipeline** that **runs under the Baltic Sea** carrying gas from **Russia to Europe**, built and operated by **Nord Stream AG**.
- **Source:** Bovanenkovo oil and gas condensate deposit in Western Siberia, and runs **from Vyborg, Russia to Lubmin** near Greifswald, Germany.

- It crosses the **Exclusive Economic Zones (EEZs) of Russia, Finland, Sweden, Denmark and Germany**, as well as the territorial waters of Russia, Denmark, and Germany.
- Nord Stream pipeline **does not cross** the Exclusive Economic Zones (EEZs) of **Ukraine and Italy**.

21. (b)

**Statement 1 is not correct:** With a **length of 692 km** and a width variation of 10 km to 120 km, Aravali forms an **ecotone zone** between Thar desert and the Gangetic plain, in a semi-arid environment.

- Rajasthan occupies **80%** of the world's oldest hill range, while other States — **Haryana, Delhi, and Gujarat** — have **20%** share in the terrain.

**Statement 2 is correct:** The range comprises over **500 hillocks**, and the altitude of its highest peak, **Guru Shikhar in Mount Abu**, is 1,722 metres.

22. (b)

**Context:**

- INS Shivalik reached Guam, for an Operational Turnaround on successful completion of the recently concluded world's largest Multinational Maritime Exercise RIMPAC 2024.

**Guam Island**

- **Location:** It is an island territory of the **United States of America**, in the **North Pacific Ocean**.
  - The Island is the **largest, most populous, and southernmost** of the Mariana Islands.
- **Capital:** Hagåtña (Agana)
- **History:** Guam remained under Spanish possession until **1898**. However in the course of the **Spanish-American War**, the island was ceded to the United States.

23. (b)

**Statement 1 is not correct:** A waterspout is a **large column of air and mist** rotating over a **water body**.

- The average waterspout can be around **165 feet in diameter**, with wind speeds of **100 kilometres per hour**.

**Statement 2 is correct:** It is a weaker kind of tornado and typically **lasts for around five minutes** — occasionally it can last up to 10 minutes.

- They occur when there are **high levels of humidity** and relatively **warm water temperatures** compared to the overlying air.

24. (d)

**All the statements are correct:** It is indeed situated in the far eastern part of Russia. The peninsula is renowned for its volcanic activity, including numerous active volcanoes and geysers. This unique geological feature has earned it recognition as a UNESCO World Heritage Site. The Kamchatka Peninsula is geographically bordered by the Sea of Okhotsk to its west and the Bering Sea to its east.

25. (a)

**South China Sea**

- It is a marginal sea of the **Western Pacific Ocean**.
- It is located between **southern China, Taiwan, the Philippines, Indonesia, Vietnam, Thailand, Cambodia and Malaysia**.
- It is a crucial maritime gateway and junction for shipping between the **Pacific and Indian Oceans**.

**Choke Point in the South China Sea**

- While the current tensions are between **China, the Philippines and Taiwan**, the real threat to trade in the Sea comes in the **Malacca Strait**.
  - The strait is the **Choke point** in the South China Sea, which lies between **Malaysia, Indonesia and Singapore**.

26. (d)

**News:** Recently, Prime Minister (PM) Narendra Modi visited Poland which was the first visit of an Indian PM to the country in the past 45 years.

**Poland**

- It borders **Germany**, the Czech Republic, Slovakia, **Ukraine**, **Belarus**, Lithuania and **Russia** (the Kaliningrad exclave).
- Its northern border (440 km long) runs along the Baltic Sea coast.
- **Capital:** Warsaw is the capital and largest city of Poland.



27. (b)

**In News:** India strongly denied claims of Bangladesh that flooding of eastern borders of Bangladesh had been caused by the opening of Dumbur dam upstream of the Gumti river in Tripura.

**Statement 1 is not correct:** The Gumti River originates in the hills of the Atharamura range in Tripura and flows into Bangladesh, where it merges with the Meghna River, not the Brahmaputra River.

**Statement 2 is correct:** The Dumbur Dam on the Gumti River is indeed used for irrigation and flood control in the Tripura region.

28. (c)

**In News:** Recently, an Indian tourist bus, carrying around 40 passengers, veered off the highway and plunged into the fast-flowing Marsyangdi River in Nepal's Tanahun district resulting in the several loss of lives, and injuries.

**Statement 1 is correct**

- **Marshyangdi River** originates at an altitude of 3,600 metres northwest of the **Annapurna massif** in Nepal, where the **Khangsar Khola and Jharsang Khola** mountain rivers meet.
- Its tributaries are Nagdi Khola, Dordi Khola, Chepe Khola, Chundi Khola, and Daraudi etc

**Statement 2 is correct**

- It flows eastward through Manang District, then southward through Lamjung District, and **eventually joins the Trishuli River near Mugling as a tributary**.
- It is **part of the Gandaki River system**, which is also known as **Narayani**.



29. (b)

**In News :** The world's second-largest 2,492-carat diamond has been discovered in Botswana at a mine owned by Lucara Diamond, a Canadian firm.

- The largest diamond – 3,106-carat – was found in South Africa in 1905, also known as the Cullinan Diamond.

**Botswana** is situated in the Southern African region.

- It is a land-locked country dominated in geographical terms by the **Kalahari Desert**.



- It is bordered by **Zambia** and Zimbabwe to the northeast, **Namibia** to the north and west, and **South Africa** to the south and southeast.
- **Capital City:** Gaborone

30. (c)

**In News:** A narrow stretch of land along the Gaza Strip's border with Egypt has emerged as the main stumbling block in negotiations.

**Statements 1 and 2 are correct :** **Philadelphi (Salaheddin) Corridor** is a 14-km stretch along Gaza's border with Egypt, and is central to ceasefire negotiations between Israel and Hamas.

- It was built by the Israeli military when Gaza was under its direct occupation between 1967 and 2005.
  - The U.S.-brokered 1979 agreement was the first peace treaty between Israel and an Arab country.

31. (c)

**About Wular Lake**

- Located in Jammu and Kashmir's Bandipora district, it is the **largest freshwater lake in India and second largest in Asia (after Lake Baikal)**.
- It was formed by tectonic activity and **fed by the Jhelum River. Hence, Statement 2 is not correct.**
- Zaina Lank is a small island in a lake constructed by **King Zainul-Abi-Din**. Wular Lake is designated as a **Ramsar site**.
- **Threats:** Pollution, encroachment, and siltation have reduced the lake's size and ecological health.

32. (c)

**News:**

- The Arbaat Dam in eastern Sudan has collapsed following heavy rainfall, causing severe flooding that has devastated nearby villages.

### About Sudan

- Located in the north eastern part of Africa, it is Africa's **3rd largest** country by area. Before the secession of South Sudan in 2011, Sudan was the largest country in Africa.
- It is **bordered** with the Central African Republic to the southwest, **Chad** to the west, **Egypt** to the north, **Eritrea** to the east, **Ethiopia** to the southeast, **Libya** to the northwest, **South Sudan** to the south and the Red Sea.
- It is also home to the **longest river** in the world, the River Nile.
  - The White and Blue Niles meet in **Khartoum, the capital city of Sudan**, and merge to become the Nile River that flows all the way to the Mediterranean Sea via Egypt.



33. (c)

### How a Cyclone is formed?

- **Conditions:** Cyclones typically form over **warm ocean waters**, the warmth provides the necessary **heat and moisture** to fuel the cyclone.
  - Warm water causes the ocean to **evaporate**, creating warm, moist air. This moist air rises from the ocean surface, leading to a **decrease in air pressure at the surface**.
- **Formation of a Low-Pressure System:** When the air rises up and away from the ocean surface, it creates an **area of lower air pressure below**.
  - It causes the air from surrounding areas with higher pressure to move towards the low-pressure area which further leads to **warming up of the air and causes it to rise above**. **Hence, Statement 2 is not correct.**
- **Cyclonic Circulation:** **The rotation of the Earth (Coriolis effect)** causes the rising air to start spinning around the low-pressure center. This spinning motion leads to the development of cyclonic circulation.



# GOVERNMENT SCHEMES/INITIATIVES

1. Which of the following statements about the Nirbhaya Fund are correct?
  1. The Nirbhaya Fund is administered by the Ministry of Women and Child Development.
  2. The fund is primarily used for projects aimed at enhancing women's safety and security.
  3. The fund is a lapsable fund.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) 2 only
2. With reference to Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme, consider the following statements:
  1. It was launched by the government in 2015, with its 2.0 version launched in 2021.
  2. The mission was drawn to cover 100 cities and towns with a population of over one lakh.
  3. The purpose of the AMRUT mission was to ensure that every household has access to a tap with assured supply of water and a sewerage connection.How many of the statements given above are correct?
  - (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
3. Which of the following is **NOT** a key feature of the Village Defence Guards (VDGs) scheme?
  - (a) VDGs are constituted in identified vulnerable villages.
  - (b) VDG members are provided with arms and ammunition.
  - (c) The scheme is operational in all states and union territories of India.
  - (d) VDGs are headed by a retired officer.
4. 'Ladki Bahin Yojana' recently seen in the news, was announced by which of the following states?
  - (a) Bihar
  - (b) Uttar Pradesh
  - (c) Maharashtra
  - (d) West Bengal
5. Which of the following statements is correct regarding Project Pari ?
  - (a) It aims to address the issues of declining Child Sex Ratio (CSR) and enabling Girl Child Education.
  - (b) It seeks to bring forth public art that draws inspiration from millennia of artistic heritage .
  - (c) It is the Indian Army's extensive Humanitarian Assistance and Disaster Relief operation for Kerala landslide .
  - (d) It is an experimental scheme to induct women officers in all combat roles in the Armed Forces .

6. 'Pradhan Mantri JI-VAN Yojana' recently seen in the news, primarily promotes
- (a) Healthy Eating Habits (b) Care of Older People  
(c) Advanced Biofuels (d) Inclusive Insurance
7. The Clean Plant Programme (CPP) recently seen in the news, is related to which of the following?
- (a) Initiative to Combat Air Pollution  
(b) Scheme for the transition towards Renewable Energy  
(c) Scheme to Improve Horticulture Sector  
(d) None of the Above
8. With reference to the National Institutional Ranking Framework (NIRF), which of the following statements is/are correct?
1. It was launched by the Ministry of Education, to rank institutions of higher education in India.  
2. The institutions are ranked according to Five broad categories, each having the same weightage.
- Select the correct answer using the code given below:
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
9. With reference to the Pradhan Mantri Awas Yojana-Urban (PMAY-U) 2.0, consider the following statements:
1. The scheme will provide financial support to the middle class as well as impoverished urban families for building, buying, or renting reasonably priced urban homes.  
2. The eligible income criteria for Economically Weaker Section (EWS) households is ₹6-9 lakh.
- 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 'Pradhan Mantri JI-VAN Yojana', consider the following statements:
1. It is implemented through a technical body under the Union Ministry of Environment, Forest and Climate Change.  
2. Recently, its implementation period was extended till 2028-29.
- 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. Which of the following statements are correct regarding Mission Karmayogi?
1. It aims to create a future-ready civil service with the right attitude, skills, and knowledge.  
2. The program emphasizes on-site learning and traditional classroom training methods.  
3. The mission focuses exclusively on training and development of senior bureaucrats.
- Select the correct answer using the codes given below
- (a) 1 only (b) 2 only  
(c) 1 and 3 only (d) 1, 2 and 3
12. Consider the following statements with reference to the Jiyo Parsi Scheme:
1. Launched in 2013-14, it is a Central Sector Scheme.  
2. The scheme has three components, Medical Assistance, Advocacy & Health of Community.

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. Consider the following statements regarding Centrally Sponsored Schemes (CSSs) in India:

1. CSSs are schemes where the Union Government provides complete funding and the State Governments are responsible only for implementation.
2. The Baijal Committee Report of 1987 provides the definition of CSSs.

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 Indian states has recently announced the menstrual leave policy for working women?

- (a) Haryana (b) Maharashtra  
(c) Odisha (d) Karnataka

15. The RISE Accelerator program is primarily aimed at:

- (a) Large multinational corporations (b) Government agencies  
(c) Start-ups and MSMEs (d) Non-profit organizations

16. With reference to the National Mission for Clean Ganga (NMCG), which of the following statements is/are correct?

1. It was registered as a society in 2011 under the Societies Registration Act 1860.
2. It has a two tier management structure, comprising Governing Council and Executive Committee.

Select the correct answer using the code given below:

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

17. With reference to the Open Network for Digital Commerce (ONDC) in India, consider the following statements:

1. It was launched in 2022 by the Department of Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce.
2. It aims to provide equal opportunities to MSMEs to thrive in digital commerce and democratize e-commerce.

Which of the statements given above is/are correct?

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

18. With reference to the UDAN (Ude Desh Ka Aam Nagrik) initiative, consider the following statements:

1. It is an initiative to improve infrastructure and connectivity in India.
2. The first UDAN flight was inaugurated in 2017 connecting Manipur to 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

- 19.** Consider the following statements regarding the SLCR Project:
1. The SLCR Project includes a Decision Support System (DSS) for analyzing water dynamics within the Varuna River basin.
  2. The Varuna River, rejuvenated under the SLCR Project, is a minor tributary of the Ganga River, originating near Phulpur in Prayagraj.
- 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.** 'Subhadra Scheme' recently seen in the news, is launched by which of the following states?
- (a) Maharashtra (b) Gujarat  
(c) Rajasthan (d) Odisha
- 21.** 'PM-WANI Scheme' recently seen in the news, aims to
- (a) Provide financial support to integrated bioethanol projects.  
(b) Increase internet connectivity.  
(c) Bring tribal communities into the mainstream.  
(d) Empower women and promote gender parity.
- 22.** With reference to the *Lakhpati Didi Yojana*, consider the following statements:
1. It aims to uplift women in both rural and urban areas by providing them with skill development opportunities and financial support.
  2. It is jointly implemented by the Ministry of Rural Development and the Ministry of Housing and Urban Affairs.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 23.** Consider the following statements regarding the National Quantum Mission (NQM):
1. The Mission aims to establish a quantum communication network spanning 2,000 kilometers, with inter-city quantum key distribution (QKD) over 1,000 kilometers.
  2. The mission is scheduled to run from 2023 to 2031.
- 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 Pradhan Mantri Jan Dhan Yojana (PMJDY), consider the following statements:
1. It is a financial inclusion initiative launched by the Government in 2014.
  2. There is a requirement of maintaining a minimum balance of INR 500 in PMJDY accounts.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 25.** Which of the following Indian states recently raised the minimum age of marriage for girls from 18 to 21 years?
- (a) Goa (b) Himachal Pradesh  
(c) Kerala (d) Assam

26. Recently, which of the following Indian states has come up with a new social media policy encouraging influencers to promote its initiatives, schemes, and achievements with prize payments?
- (a) Maharashtra (b) West Bengal  
(c) Uttar Pradesh (d) Karnataka
27. With reference to the Agriculture Infrastructure Fund (AIF), consider the following statements:
1. The AIF provides an interest subvention of 3% per annum on loans for post-harvest management infrastructure.
  2. Loans under the AIF are covered by a credit guarantee for amounts up to ₹2 Crores under the Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE).
  3. The total corpus of the AIF is ₹1 Lakh Crore, which is provided as grants by the central government.
- 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
28. Consider the following statements regarding the RESET Programme:
1. The RESET Programme is exclusively designed for retired sports persons aged between 20 to 50 years who have participated in or received medals in international events only.
  2. The programme offers different levels of training based on the educational qualifications of the participants, and it includes both self-paced learning and on-ground training.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
29. Which of the following statements is correct regarding Project NAMAN of the Indian Army ?
- (a) It is a rescue operation in areas affected by landslides in Wayanad.  
(b) It is an operation in Gujarat's worst-affected areas as flood-like conditions persist due to continuous heavy rainfall.  
(c) It is designed to provide dedicated support and services to Defence pensioners, and their families.  
(d) It is aimed to repatriate Indian citizens from Israel and Palestine through special chartered flights.

## EXPLANATIONS

1. (d)

**Statement 1 is not correct:** The Government has set up a dedicated fund – Nirbhaya Fund – which can be utilized for projects specifically designed to improve the safety and security of women. It is a non-lapsable corpus fund, being administered by the Department of Economic Affairs, Ministry of Finance. The Ministry of Women and Child Development (MWCD) is the nodal Ministry to appraise/recommend proposals and schemes to be funded under Nirbhaya Fund.

**Statement 2 is correct:** The primary objective of the Nirbhaya Fund is to support initiatives aimed at improving the safety and security of women.

**Statement 3 is not correct:** The Nirbhaya Fund is a non-lapsable corpus fund, meaning that the unspent balance does not lapse at the end of the financial year.

## 2. (b)

**Statement 1 is correct:** The AMRUT scheme was launched by the government in 2015, with its 2.0 version launched in 2021.

**Statement 2 is not correct:** The mission was drawn to cover 500 cities and towns with a population of over one lakh with notified municipalities.

**Statement 3 is correct:** The purpose of the AMRUT mission was to:

- ensure that **every household has access to a tap with assured supply of water and a sewerage connection;**
- increase the value of cities by developing greenery and well-maintained open spaces such as parks and;
- reduce pollution by switching to public transport or constructing facilities for non-motorised transport.

## 3. (c)

**In News:** The Village Defence Guards (VDGs) will be provided with sophisticated weapons to deal with rising incidents of terror in the Jammu region.

The Village Defence Committees (VDCs) scheme to arm the civilians was first started in 1995 in ten districts of the Jammu region, when members of the Hindu community were targeted and killed by terrorists. VDGs or Village Defence Committees (VDCs) are being revived in the region since 2022 after a gap of more than 20 years. VDGs shall be headed by a retired officer of the Army/CPMF/ J&K Police. The scheme is typically operational in specific areas, particularly in identified vulnerable villages, rather than being a nationwide scheme across all states and union territories of India.

## 4. (c)

**News:** The Bombay High Court has recently said that the Maharashtra government's 'Ladki Bahin Yojana' is a beneficiary scheme for women and cannot be said to be discriminatory.

**About:**

- Under the Mukhyamantri Majhi Ladki Bahin Yojana, which was announced in the State budget, ₹1,500 is slated to be transferred into the bank accounts of eligible women in the age group of 21 to 65 years whose family income is less than ₹2.5 lakh.

## 5. (b)

Recently, Project PARI was initiated on the occasion of the 46th Session of the World Heritage Committee Meeting,

- The Project PARI (Public Art of India) was launched by the Ministry of Culture.
- It is managed by Lalit Kala Akademi and National Gallery of Modern Art.
- **Art Forms:** Includes traditional and contemporary art such as Phad paintings, Thangka paintings, Warli art, Gond Art, Alpona art, Cheriya painting, Tanjore paintings, Kalamkari, Pithora Art, and Kerala Murals.
- **Objective:** To celebrate and enhance the public art scene by blending India's cultural heritage with contemporary themes.

## 6. (c)

**Context:** To keep pace with the latest developments in the field of biofuels and to attract more investment, the Union Cabinet, chaired by the Prime Minister Narendra Modi, has approved the modified **Pradhan Mantri JI-VAN Yojana** recently.



**About:**

- The modified scheme extends timeline for implementation of scheme by Five (5) year i.e. till 2028-29 and includes **advanced biofuels** produced from lignocellulosic feedstocks i.e. agricultural and forestry residues, industrial waste, synthesis (syn) gas, algae etc. in its scope. “Bolt on” plants & “Brownfield projects” would also now be eligible to leverage their experience and improve their viability.
- The scheme aims to provide remunerative income to farmers for their agriculture residue, address environmental pollution, create local employment opportunities, and contribute to India’s energy security and self-reliance.

**7. (c)**

CPP is designed to **address critical issues in horticulture** by providing access to high-quality, virus-free planting material.

- The programme is poised to deliver numerous benefits across various stakeholders, from farmers to consumers, and bolster India’s position in the global fruit market.

**8. (a)**

**National Institutional Ranking Framework (NIRF)**

- NIRF was launched in **2015** by the **Ministry of Education**, to rank institutions of higher education in India.
- **Five broad categories** of parameters identified in the NIRF;
  - Teaching, Learning & Resources
  - Research and Professional Practice
  - Graduation Outcome
  - Outreach and Inclusivity
  - Perception
- Each of these five parameters have 2 to 5 sub-parameters and a total number of 18 parameters are used for ranking of Higher Education Institutions (HEIs).
  - The overall score is computed based on the weightage allotted to each parameter and sub-parameter.

Sl. No.	Parameter	Marks	Weightage
1.	Teaching, Learning & Resources	100	0.30
2.	Research and Professional Practice	100	0.30
3.	Graduation Outcome	100	0.20
4.	Outreach and Inclusivity	100	0.10
5.	Perception	100	0.10

**9. (a)**

**Statement 1 is correct:** It aims to construct **1 crore houses**, while also focusing on equity among different segments of the populations.

- The scheme will **provide financial support** to the middle class as well as impoverished urban families for building, buying, or renting reasonably priced urban homes.

**Statement 2 is not correct: Eligibility:** It can be availed by families who belong to the **Economically Weaker Section (EWS), Low Income Group (LIG), and Middle Income Group (MIG)** segments and **do not currently own a pucca house** anywhere throughout the country.

- **The eligible income criteria are as follows:**
  - **EWS households** with an annual income up to **₹3 lakh**.
  - **LIG households** with an annual income between **₹3-6 lakh**.
  - **MIG households** with an annual income between **₹6-9 lakh**.

**10. (b)**

**In News:** Recently, the Union Cabinet approved the extended **Pradhan Mantri JI-VAN Yojana** to boost advanced biofuel projects.

**Statement 1 is not correct**

- **Pradhan Mantri JI-VAN (Jaiv Indhan- Vatavaran Anukool fasal awashesh Nivaran) Yojana** aims to provide financial support to **Integrated Bioethanol Projects** using lignocellulosic biomass and other renewable feedstock.
- **Centre for High Technology (CHT)**, a technical body under the aegis of **Ministry of Petroleum and Natural Gas (MoP&NG)**, will be the implementation Agency for the scheme.

**Statement 2 is correct**

- **Implementation Extension:** The modified scheme now **extends its implementation period by five years**, running through **2028-29**.
- **Eligibility for Existing Plants:** Under the modified scheme, both **'bolt-on' plants (which enhance existing facilities)** and **'brownfield projects' (revamping existing facilities)** are **now eligible** to participate.

**11. (a)**

**In News:** Recently, the Amrit Gyan Kosh portal (learning knowledge bank) and Faculty Development portal were launched under Mission Karmayogi.

**Statement 1 is correct:** Mission Karmayogi, also known as the National Programme for Civil Services Capacity Building (NPCSCB), aims to transform the Indian civil service into a competent, efficient, and future-ready workforce.

**Statement 2 is not correct:** The program emphasizes a shift from traditional classroom training to a more blended and online learning approach, utilizing digital platforms and tools. Mission Karmayogi aims to leverage technology to provide personalized and adaptive learning experiences, catering to the individual needs and career paths of civil servants.

**Statement 3 is not correct:** The mission is designed to cater to the training and development needs of all civil servants, from entry-level to senior positions, across various departments and ministries.

**12. (c)**

**Context:** The Minister for Minority Affairs Kiren Rijiju has launched the Jiyo Parsi Scheme portal.

**Jiyo Parsi Scheme**

- Launched in 2013-14, it is a **Central Sector Scheme**.
- The objective of the scheme is to reverse the declining trend of Parsi Population by adopting scientific protocol and structured interventions to stabilize their population in India.
- The scheme has **three components**, Medical Assistance, Advocacy & Health of Community:
  - Under **Medical Component** of the scheme, financial assistance is provided to Parsi Couples for medical treatment under standard medical protocol;
  - Under **Health of Community Component**, financial assistance is provided to Parsi Couples for child care and assistance of elderly people and
  - Under **Advocacy Component**, advocacy/outreach programmes are conducted to generate awareness among the Parsi Population.

**13. (b)**

**Statement 1 is not correct:** The Centrally Sponsored Schemes (CSSs) involve shared funding between the Centre and States, not complete funding by the Centre.

Under CSS, a certain percentage of the funding is borne by the States in the ratio of 50:50, 70:30, 75:25 or 90:10.

**Statement 2 is correct:** CSSs are formulated in subjects from the State List to encourage states to prioritise in areas that require more attention. The Bajaj Committee Report of 1987 provides the foundational definition of CSSs.

**14. (c)**

**News:** Odisha has announced one-day menstrual leave policy for working women and becoming the third state after Bihar and Kerala to do so.

**About:**

- Traditionally, menstruation has been shrouded in stigma and silence, with many women experiencing discomfort and health issues during their periods.
- In India, health is primarily governed by the states, and currently, there is no Central Law to mandate paid menstrual leave nationwide.

**Arguments in favour of paid menstrual leave**

- Women experience a wide range of health complications during their monthly cycle.
- Workplaces need to accommodate biological differences between co-workers and like Maternity leave, Menstrual leave will promote gender equality.

**Arguments against paid menstrual leave**

- Some critics have called it a discriminatory measure. It may portray women as less able than men; and question women's work efficiency.
- Even in places where such policies exist, there have not been too many takers.

**15. (c)**

The RISE Accelerator program was launched in 2023. It is specifically designed to help businesses based in India or Australia expand their operations into the other country. The program primarily supports start-ups and MSMEs (Micro, Small, and Medium Enterprises) in their internationalization efforts.

**16. (c)****National Mission for Clean Ganga (NMCG)**

- NMCG was **registered as a society in 2011** under the Societies Registration Act 1860.
- It acted as the **implementation arm of National Ganga River Basin Authority (NGRBA)** which was constituted under the provisions of the **Environment (Protection) Act (EPA), 1986**.
  - NGRBA was dissolved in 2016, consequent to the constitution of National Council for Rejuvenation, Protection and Management of River Ganga (referred as **National Ganga Council**).
- NMCG has a **two tier management structure** and comprises **Governing Council and Executive Committee**.
  - Both of them are headed by Director General, NMCG.
- Similar to the structure at national level, **State Programme Management Groups (SPMGs)** act as the implementing arm of State Ganga Committees.

17. (c)

**Both the statements are correct:** It was launched in **2022** by the Department of Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce.

- It aims to **provide equal opportunities to MSMEs** to thrive in digital commerce and democratize e-commerce.
- It **promotes open networks for all aspects** of exchange of goods and services over digital or electronic networks.
- Currently, there are partners like Paytm, Meesho, Magicpin, Mystore, Craftsvilla, and Spice Money, which act as online storefronts, allowing users to order food or any other product from a business listed on the ONDC platform.

18. (a)

**Statement 1 is correct:** The Regional Connectivity Scheme (RCS) - UDAN (Ude Desh Ka Aam Nagrik) is an initiative **to improve infrastructure and connectivity in India**, especially in remote and underserved regions.

- It is a vital component of India's **National Civil Aviation Policy (NCAP) 2016**, launched by the **Ministry of Civil Aviation (MoCA) in 2016**, with a 10-year vision.

**Statement 2 is not correct:** The first RCS-UDAN flight was inaugurated in **2017**, connecting **Shimla to Delhi**.

19. (c)

The Green Strategic Partnership between the Governments of India and Denmark has facilitated the establishment of the SLCR in Varanasi, with the objective of rejuvenating the Varuna River.

**Statement 1 is correct:** The SLCR Project includes a Decision Support System (DSS) to analyze the water dynamics within the Varuna River basin.

**Statement 2 is correct:** Varuna is a Minor tributary of Ganga originating near Phulpur, Prayagraj and merges with Ganga in Varanasi, UP.

20. (d)

Odisha Chief Minister Mohan Majhi announced **the implementation of the Subhadra scheme**.

- Under the scheme, ₹50,000 will be provided over five years to **one crore poor women aged between 21 and 60**.
- A total of **₹10,000 per annum** will be paid in **two instalments of ₹5,000** each on Rakhi Purnima Day and International Women's Day (March 8).

21. (b)

**Context:**

- Telecom Regulatory Authority of India (TRAI) has released a draft Telecommunication Tariff (70th Amendment) Order, 2024 on "Regulatory framework for PM-WANI scheme".

**What is the PM-WANI scheme?**

- **Prime Minister's WiFi Access Network Interface (PM-WANI)** was launched by the Department of Telecommunication in **2020**.
- **The scheme aims** to enhance the proliferation of **public WiFi hotspots** to create robust digital communications infrastructure in the country, especially in rural areas.
- The government aims to **increase employment for small and micro-entrepreneurs** and **provide low-cost internet** to the underserved urban poor and rural households.
- The scheme encourages local shops and establishments to provide Wi-Fi for last-mile internet delivery which does not require a license or charge a registration fee.

22. (d)

**In News:** Recently, the Prime Minister participated in 'Lakhpati Didi Sammelan' at Jalgaon, Maharashtra.

**Statement 1 is not correct**

- **Lakhpati Didi Yojana** aims to uplift women in rural areas (*not urban areas*) by providing them with skill development, training programmes, and financial support

**Statement 2 is not correct**

- It is organised under the **Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM)** scheme of the **Ministry of Rural Development (MoRD)**.
  - The Ministry of Housing and Urban Affairs is not responsible for implementation of it.

23. (c)

**Statement 1 is correct:** The National Quantum Mission aims to establish a quantum communication network spanning 2,000 kilometers, with inter-city quantum key distribution (QKD) over 2,000 kilometers. The mission aims to develop quantum computers with a processing capacity ranging from 50 to 1,000 qubits.

**Statement 2 is correct:** The mission is implemented by the Department of Science & Technology under the Ministry of Science & Technology and is scheduled to run from 2023 to 2031.

24. (a)

**Statement 1 is correct:** PMJDY being launched in 2014 is the largest financial inclusion initiative to provide support to the marginalised and economically backward sections through its financial inclusion interventions.

- PMJDY provides one basic bank account for every unbanked adult.

**Statement 2 is not correct:** Key benefits of the scheme include **no requirement** to maintain a minimum balance in PMJDY accounts.

25. (b)

**In News:** In a significant move towards gender equality and promoting higher education, the Himachal Pradesh State Assembly recently passed the '**Prohibition of Child Marriage (Himachal Pradesh Amendment) Bill, 2024**'.

- The **Prohibition of Child Marriage Act, 2006** was enacted to prevent the solemnisation of child marriages and address related matters.
- It raised the minimum age of marriage for girls **from 18 to 21 years**.
  - It aims to provide gender equality and create opportunities for girls to pursue higher education and personal development.
- Himachal Pradesh proudly claims the title of being the **first state in India** to enact legislation increasing the marriage age of girls to 21.

26. (c)

**News**

- The Uttar Pradesh government has come up with a new social media policy (The Uttar Pradesh Digital Media Policy 2024), offering up to Rs 8 lakh per month to influencers who promote its initiatives, schemes, and achievements.

**About**

- With increasing penetration of social media in this era, the move is aimed at creating employment and curbing spread of rumours on social media.

- Under the policy, the government has also been authorised to take legal action if such paid content shows any anti-national, anti-social, or derogatory references.
- However, the initiative is facing sharp criticism from the various quarters with the Opposition parties alleging that it is an attempt to silence criticism by using money power.

**27. (a)**

**Statement 1 is correct:** The AIF provides an interest subvention of 3% per annum on loans for the development of post-harvest management infrastructure.

**Statement 2 is correct:** Loans under the AIF are covered by a credit guarantee for amounts up to ₹2 Crores under CGTMSE.

**Statement 3 is not correct:** The total corpus of ₹1 Lakh Crore under the AIF is provided as loans by banks and financial institutions, not as grants by the central government.

**28. (b)**

**Statement 1 is not correct:** The RESET Programme is for retired sports persons who have participated in or received medals in both national and international events, not just international events.

**Statement 2 is correct:** The programme offers different levels based on educational qualifications and includes a hybrid mode of learning with both self-paced learning and on-ground training.

**29. (c)**

**In News :** Indian Army launched the first phase of Project NAMAN

- Project NAMAN is designed to provide dedicated **support and services to Defence Pensioners, Veterans, and their families.**
- It centers around the **SPARSH (System for Pension Administration Raksha)** digital pension system, aiming to streamline pension processes.
- **Partnership and Implementation:** The project involves a tripartite MoU between the Indian Army's Directorate of Indian Army Veterans, Common Service Centre (CSC) e-Governance India Limited, and HDFC Bank Limited.



# DEFENSE/ INTERNAL SECURITY

1. Which of the following statements is/are correct about the Exercise Tarang Shakti?
1. Inspired by the U.S.-led Red Flag exercise, it is the biggest international air exercise ever held in India.
  2. The exercise included the participants from India's neighbouring countries and major Asian Nations.

Select the correct answer using the codes given below

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

2. Consider the following statements with reference to the Exercise Pitch Black :
1. It is a biennial, multi- national exercise hosted by the Indian Air Force (IAF).
  2. The name 'Pitch Black' was derived from the emphasis on night time flying over large un-populated areas.

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. Multinational air exercise 'Tarang Shakti 2024', recently seen in the news, is being hosted by which of the following countries?

- (a) Tajikistan (b) Turkiye  
(c) USA (d) India

4. Exercise Udara Shakti, is a joint air exercise between India and which one of the following countries?

- (a) Malaysia (b) Kazakhstan  
(c) Thailand (d) Uzbekistan

5. The MITRA SHAKTI, is a Joint Military Exercise between India and which one of the following countries?

- (a) Bangladesh (b) Malaysia  
(c) Thailand (d) Sri Lanka

6. Consider the following statements

1. GAURAV is a surface-to-surface supersonic cruise missile featuring indigenous Booster and Airframe Section .
2. GAURAV uses a hybrid navigation system combining Inertial Navigation System (INS) and GPS for accurate targeting.

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. INS Arighaat and INS Arihant, recently seen in the news, are related to
- (a) Frigates (b) Aircraft Carriers  
(c) Corvettes (d) Submarines
8. With reference to the Indian Coast Guard (ICG), which of the following statements is/are correct?
1. It was established by the Coast Guard Act, 1978 of the Parliament of India.  
2. The Ministry of Defence is the parent agency of ICG
- 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)

India will host its first multinational air exercise, '**Tarang Shakti 2024**', in two phases starting on the 6th of next month in Sular, Tamil Nadu

#### About Exercise Tarang Shakti

- It is the IAF's largest multilateral exercise. It aims to showcase India's defence capabilities and enhance cooperation among the participating militaries.
- **Participants:** In this exercise, nearly 30 countries will participate, and out of 30, ten countries will join the exercise with their fighter aircraft.
  - The ten countries bringing their aircraft include Australia, Bangladesh, France, Germany, Greece, Spain, the United Arab Emirates, the United Kingdom, the USA, and Singapore. Eighteen other countries will attend as observers.
- **Features :** It will feature flying and ground training, defence exhibitions, and cultural exchange programs. Defence personnel from the participating countries will also visit Indian tech companies.
  - India will display its indigenous fighter aircraft and equipment, including the Tejas, Rafale, Mirage 2000, Jaguar, and MIG 29.

2. (b)

**Context:** Recently **Exercise Pitch Black 2024** was concluded in Darwin, Australia.

#### Exercise 'Pitch Black'

- It is a **biennial, multi-national exercise** hosted by the **Royal Australian Air Force (RAAF)**.
- The name 'Pitch Black' was derived from the emphasis on night time flying over large unpopulated areas.
- The 2024 edition is the largest in the 43 year long history of Ex Pitch Black, which includes participation by 20 countries, with over 140 aircraft and 4400 military personnel of various air forces.
- **The Indian Air Force (IAF)** also participated in the exercise.
- It has previously participated in the **2018 and 2022** editions of this exercise.

3. (d)

**News:** India is hosting its first multinational air exercise '**Tarang Shakti 2024**' in Sular, Tamil Nadu.



**About:**

- In the exercise, nearly 30 countries will participate, and out of 30, ten countries will join the exercise with their fighter aircraft.
- The exercise is being conducted in two phases, which aims to showcase India's defense prowess and provide a platform for participating militaries to foster interoperability.

## 4. (a)

**Context:** The Indian Air Force (IAF) contingent returned to India after successfully participating in the Exercise Udara Shakti 2024.

**About**

- The joint air exercise was conducted in collaboration with the Royal Malaysian Air Force (RMAF) at **Kuantan, Malaysia**.
- The primary focus of the exercise was to bolster operational efficiency and enhance the technical expertise of both air forces.
- During the exercise, IAF's Su-30MKI fighter jets engaged in air combat missions alongside the RMAF's Su-30MKM fighters, enabling the crew of both air forces to familiarize with each other's operational protocols, thereby enhancing interoperability, commonality and overall effectiveness in Su-30 aircraft operations.

## 5. (d)

**News:** The 10th edition of India- Sri Lanka Joint Military Exercise MITRA SHAKTI commenced at Army Training School, Maduru Oya, Sri Lanka.

**About:**

- Aim of the Joint Exercise is to enhance joint military capability of both sides to undertake counter insurgency operations in a Sub Conventional scenario under Chapter VII of the United Nations Mandate.
- The exercise will focus on operations in the semi-urban environment.

## 6. (b)

**Statement 1 is not correct:** The Defence Research and Development Organisation (DRDO) conducted the maiden flight test of the **Long Range Glide Bomb (LRGB), named GAURAV**.

- The test was carried out from a Su-30 MK-I aircraft of the Indian Air Force (IAF) off the coast of Odisha.
- **GAURAV is a 1,000 kg class air-launched glide bomb.**

**Statement 2 is correct :** **GAURAV** is designed for long-distance targeting.

- It uses a hybrid navigation system combining **Inertial Navigation System (INS) and GPS for accurate targeting**.

## 7. (d)

**News:** Recently, India's second nuclear-powered ballistic missile submarine, INS Arighaat was commissioned into service at Visakhapatnam.

**About:**

- It joins the first such submarine, INS Arihant, which was commissioned in 2016.
- However, the technological advancements undertaken indigenously on this submarine make it significantly more advanced than its predecessor, Arihant.
- The presence of both INS Arihant and INS Arighaat will enhance India's capability to deter potential adversaries and safeguard its national interests.

8. (c)

**Indian Coast Guard (ICG)**

- ICG is a maritime law enforcement and search and rescue agency of India with jurisdiction over its territorial waters including its contiguous zone and exclusive economic zone.
- **Established** in 1977 by the Coast Guard Act, 1978 of the Parliament of India.
- **Parent Agency:** Ministry of Defence
- **Headquarters:** New Delhi
- **Head:** Director General Indian Coast Guard (DGICG)



# INTERNATIONAL RELATIONS

1. With reference to the Indo-Pacific Economic Framework for Prosperity (IPEF), consider the following statements:
  1. Australia, USA, India and Bhutan are among the member countries of IPEF.
  2. It seeks to strengthen economic engagement and cooperation among partner countries.
  3. India has joined Pillars III to IV of IPEF while it has maintained an observer status in Pillar-II.How many of the statements given above are correct?
  - (a) Only one
  - (b) Only two
  - (c) All three
  - (d) None
2. The One Future Alliance (OFA) often seen in news, is related to which of the following?
  - (a) Digital Public infrastructure
  - (b) Food Security infrastructure
  - (c) Health care and education infrastructure
  - (d) Telecommunication and transportation infrastructure
3. With reference to Association of Southeast Asian Nations (ASEAN), consider the following statements:
  1. It was established in 1967 with the signing of the Marrakesh treaty.
  2. Its founding members are Malaysia, Philippines, Singapore and Thailand.
  3. It is an important trade partner of India with about 11% share in India's global trade.Which of the statements given above is/are correct?
  - (a) 1 only
  - (b) 1 and 2 only
  - (c) 2 and 3 only
  - (d) 1, 2 and 3
4. With reference to the International Seabed Authority (ISA), which of the following statements is/are correct?
  1. It is an international organization established in 2006 under the United Nations Convention on the Law of the Sea (UNCLOS).
  2. The headquarter of the ISA is located in Kingston, Jamaica.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. Which among the following countries are the members of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)?
  1. Bangladesh
  2. Bhutan
  3. Sri Lanka
  4. Nepal

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

6. Consider the following statements about AUKUS:

1. AUKUS is a trilateral security pact between Australia, the United Kingdom, and the United States.
2. The primary focus of AUKUS is to enhance cooperation in the Indo-Pacific region.
3. A key element of AUKUS involves assisting Australia in acquiring nuclear-powered submarines.

Which of the following statements are correct?

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

7. Which of the following statements accurately reflects the relationship between the International Criminal Court (ICC) and the United Nations (UN)?

- (a) The ICC is a subsidiary organ of the UN, established by the UN General Assembly.
- (b) The ICC is an independent judicial body, but its jurisdiction can be triggered by referrals from the UN Security Council.
- (c) The ICC is completely independent of the UN, with no legal or operational connections.
- (d) The ICC is the principal judicial organ of the UN, responsible for settling disputes between member states.

8. 'Communications Compatibility and Security Agreement (COMCASA)' a major defence agreement was signed between India and which of the following countries?

- (a) Australia (b) Russia  
(c) USA (d) France

9. Consider the following statements about the "Axis of Resistance":

1. The Axis of Resistance is an alliance primarily composed of countries and non-state actors in the Middle East that oppose Western influence and Israeli policies in the region.
2. Iran, Syria, and Hezbollah are often cited as the core members of the Axis of Resistance.
3. The Axis of Resistance is formally recognized by the United Nations as a legitimate regional alliance.

Which of the statements given above are correct?

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

10. With reference to the Pacific Islands Forum (PIF), consider the following statements:

1. It consists of 18 member states including members outside of the Pacific region.
2. The annual Forum meetings are chaired by the Head of Government of the Host 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. Consider the following countries:

1. Kazakhstan
2. Tajikistan
3. India
4. China
5. Pakistan

Which of the following are founding members of Shanghai Cooperation Organisation (SCO)?

- |                     |                     |
|---------------------|---------------------|
| (a) 1, 2 and 4 only | (b) 1 and 3 only    |
| (c) 2 and 5 only    | (d) 3, 4 and 5 only |
12. Which of the following countries held the 'Working Mechanism for Consultation & Coordination (WMCC)' meeting with India?
- |             |            |
|-------------|------------|
| (a) Ukraine | (b) China  |
| (c) Russia  | (d) Israel |
13. Consider the following statements regarding the World Gold Council (WGC) and gold as a commodity:
1. The World Gold Council (WGC) was established in 1987 by various mining companies and serves as the authority on gold, conducting research and exploring gold markets globally.
  2. India has the largest resources of gold in Karnataka, and it is the largest consumer of gold globally.
- Which of the statements given above is/are correct?
- |                  |                     |
|------------------|---------------------|
| (a) 1 only       | (b) 2 only          |
| (c) Both 1 and 2 | (d) Neither 1 nor 2 |
14. The Colombo Security Conclave was initially founded by which three countries?
- |                                     |
|-------------------------------------|
| (a) India, Sri Lanka, Bangladesh    |
| (b) India, Maldives, Mauritius      |
| (c) India, Sri Lanka, Maldives      |
| (d) Sri Lanka, Maldives, Bangladesh |

### EXPLANATIONS

1. (a)

**Statement 1 is not correct:** IPEF was launched in 2022, in Tokyo. The members are Australia, Brunei, Fiji, India, Indonesia, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, Vietnam and the U.S.

**Statement 2 is correct:** 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.

**Statement 3 is not correct:** The framework is structured around four pillars relating to **Trade** (Pillar I), **Supply Chain Resilience** (Pillar II), **Clean Economy** (Pillar III), and **Fair Economy** (Pillar IV).

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

2. (a)

**'One Future Alliance' (OFA)**

- It is a voluntary initiative proposed by the G20 India Presidency with support from **UNDP** and its knowledge partners.
- It aims to bring together governments, the private sector, academic and research institutions, donor agencies, civil society organizations and other relevant stakeholders and existing mechanisms to synergize global efforts in the **Digital Public Infrastructure (DPI) ecosystem**.

**Digital Public Infrastructure**

- DPI refers to platforms such as identification (ID), payment and data exchange systems that help countries deliver vital services to their people.

- DPI is a combination of
  - Networked open technology standards built for public interest,
  - Enabling governance, and
  - A community of innovative and competitive market players working to drive innovation, especially across public programmes.

### 3. (c)

**In News:** The 5th AITIGA Joint Committee and related meetings for review of the ASEAN-India Trade in Goods Agreement (AITIGA) were held in the ASEAN Secretariat, Jakarta.

**Statements 2 and 3 are correct: The Association of Southeast Asian Nations (ASEAN)** was established on 8 August 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (**Bangkok Declaration**) by the Founding Fathers of ASEAN: **Indonesia, Malaysia, Philippines, Singapore and Thailand.**

- Brunei Darussalam joined ASEAN on 7 January 1984, followed by Viet Nam on 28 July 1995, Lao PDR and Myanmar on 23 July 1997, and Cambodia on 30 April 1999, making up what is today the ten Member States of ASEAN.
- ASEAN is an important trade partner of India with about 11% share in India's global trade.

### 4. (b)

#### **The International Seabed Authority (ISA)**

- The International Seabed Authority (ISA) is an autonomous international organization **established in 1994** under
  - The **1982** United Nations Convention on the Law of the Sea (UNCLOS) and
  - The **1994** Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea.
- The ISA was established to codify international law regarding territorial waters, sea-lanes, and ocean resources.
- All States Parties to UNCLOS are members of ISA.
  - As of May 2023, ISA has **169 Members**, including **168 Member States and the European Union.**
- **Headquarters:** Kingston, Jamaica

### 5. (d)

#### **What is BIMSTEC?**

- BIMSTEC is a regional organization that was **established in 1997** with the signing of the **Bangkok Declaration.**
- **Permanent Secretariat:** Dhaka, Bangladesh
- **Members:** Bangladesh, Bhutan, Sri Lanka, Nepal, Thailand, Myanmar and India.
- **Significance:** The BIMSTEC countries are home to **22 percent** of the total world population and have a combined gross domestic product (GDP) of about **\$3.6 trillion.**

### 6. (d)

**Statement 1 is correct:** AUKUS is indeed a trilateral security pact between Australia, the United Kingdom, and the United States, announced in September 2021.

**Statement 2 is correct:** The pact emphasizes increased cooperation in the Indo-Pacific region, particularly in areas like defense capabilities and technology sharing.

**Statement 3 is correct:** A central component of AUKUS is the provision of assistance to Australia in developing and deploying nuclear-powered submarines. AUKUS is widely seen as a strategic response to China's growing military and economic influence in the Indo-Pacific.

7. (b)

**Option (a) is not correct:** The ICC is not a subsidiary organ of the UN. It operates independently.

**Option (b) is correct:** It highlights the key relationship. While the ICC is independent, the UN Security Council has the power to refer situations to the ICC Prosecutor, leading to potential investigations and prosecutions.

**Option (c) is not correct:** The ICC is independent, it does have connections to the UN, particularly through the Rome Statute and the Security Council referral mechanism.

**Option (d) is not correct:** The International Court of Justice (ICJ), not the ICC, is the principal judicial organ of the UN.

8. (c)

India and the US have signed a **troika of "foundational pacts"** for deep military cooperation, beginning **with the** Logistics Exchange Memorandum of Agreement (LEMOA) in 2016, followed by the **Communications Compatibility and Security Agreement (COMCASA)** after the first 2+2 dialogue in 2018, and then the **Basic Exchange and Cooperation Agreement (BECA) in 2020**.

- In 2016, the United States elevated India to a **major defense partner**, a status no other country holds.

9. (a)

**Statement 1 is correct:** The Axis of Resistance is an informal alliance of countries and non-state actors in the Middle East that are opposed to Western, particularly U.S., influence and Israeli policies. It includes entities like Iran, Hezbollah, and others.

**Statement 2 is correct:** Iran, Syria, and Hezbollah are commonly identified as the core members of this alliance.

**Statement 3 is not correct:** The Axis of Resistance is not a formal alliance recognized by the United Nations; it is more of a geopolitical term used to describe the cooperation between these entities against common adversaries.

10. (b)

**Statement 1 is not correct:** PIF is an intergovernmental organisation formed in **1971**.

- It consists of **18 member states** located in the Pacific region.
  - Australia, Cook Islands, Federated States of Micronesia, Fiji, French Polynesia, Kiribati, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.

**Statement 2 is correct:** The annual Forum meetings are **chaired by the Head of Government of the Host Country**, who remains as the Forum Chair until the next meeting.

- The organisation discusses priority issues at its annual meeting, where decisions made by the member states are reached by **consensus**.

11. (a)

**In News:** Pakistan has invited Prime Minister Narendra Modi to the Shanghai Cooperation Organisation's (SCO) Council of Heads of Government meeting, scheduled for October 2024 in Islamabad.

### Shanghai Cooperation Organisation (SCO)

- It is a permanent intergovernmental international organization established on June 15, 2001 in Shanghai (PRC).
- **Founding Members:** Kazakhstan, China, Kyrgyzstan, Russia, Tajikistan, Uzbekistan
- **Current Member States:**



- **Official Languages:** Russian and Chinese

#### 12. (b)

**In News:** Recently, the 31st meeting of the **Working Mechanism for Consultation & Coordination (WMCC) on India-China Border Affairs** was held in Beijing.

- **WMCC** is an institutional framework established **to facilitate communication, coordination, and management** of border-related issues **between India and China**.
- It was **set up through an India-China agreement in 2012**. It emerged as a response to the need for improved institutionalised information exchange regarding border matters.

#### WMCC on India-China Border Affairs

- It was activated after the face-off on the **Line of Actual Control (LAC)** began in 2020.
- The discussion was **'in-depth, constructive and forward-looking'**, and both sides agreed to maintain the momentum through established diplomatic and military channels.
- The talks come amid indications that the two countries are making efforts to resolve the stand-off along the **LAC in eastern Ladakh**.

#### 13. (a)

**Statement 1 is correct:** The WGC was indeed established in 1987 by mining companies and serves as the authority on gold, conducting research and exploring gold markets globally.

**Statement 2 is not correct:** While India is the 2nd largest consumer of gold after China, the largest gold resources in India are located in Bihar, not Karnataka.

#### 14. (c)

**In News:** The Member States of the Colombo Security Conclave signed the Charter and the MoU for the establishment of the Secretariat.

#### About Colombo Security Conclave

The Colombo Security Conclave is a regional security initiative focused on strengthening cooperation among member countries in the Indian Ocean Region (IOR). It was founded by **India, Sri Lanka, and the Maldives**, with Mauritius and Bangladesh joining later. The Conclave prioritizes maritime security, marine pollution response, and maritime search and rescue operations.





# SCIENCE & TECHNOLOGY

1. Consider the following statements:

1. A virus is an infectious microbe consisting of a segment of nucleic acid surrounded by a protein coat called capsid.
2. Viruses are considered living organisms because they carry out metabolic processes on their own.

Which of the statements given above is/are correct?

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

2. Which one of the following countries introduced the world's first nationwide program to treat peanut allergies in children?

- (a) Australia (b) New Zealand  
(c) China (d) India

3. With reference to the Nucleotides, which of the following statements is/are correct?

1. Nucleotides are the building blocks of DNA and RNA.
2. Each nucleotide in DNA has one of four nucleobases which is adenosine, thymine, guanine, and cytosine.

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 CRISPR-Cas9, which of the following statements is/are correct?

1. It is a tool to edit parts of the genome by removing, adding or altering sections of the DNA sequence.
2. Cas9 acts like a pair of molecular scissors, capable of cutting strands of DNA.

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. Term '*Kindlins*' sometimes appeared in the news, is in the context of:

- (a) Foot and Mouth Disease (FMD) (b) Encephalitis  
(c) Tuberculosis (d) Cancer

6. Consider the following statements about tantalum:

1. It is a ductile metal with a high melting point.
2. Tantalum is highly reactive with acids.
3. It is used in the manufacturing of surgical implants and electronic capacitors.

Which of the above statements is/are correct?

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

7. Which of the following statements about the triboelectric effect is/are correct?
1. It is the generation of an electric charge when two materials come into contact and are then separated.
  2. The triboelectric series ranks materials based on their tendency to gain or lose electrons during contact.
- Select the correct answer using the code given below:
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
8. Which among the following are the applications of Pressure in daily life?
1. Car Brakes
  2. Weather Prediction
  3. Vacuum Cleaners
  4. Pressure Cookers
- 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
9. With reference to the Lymphatic Filariasis, consider the following statements:
1. It is a serious debilitating disease caused by parasitic worms known as filarial worms.
  2. It is a priority disease that is targeted for elimination by 2025 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
10. Consider the following statements with reference to Mpox.
1. It is caused by a segmented single-stranded RNA virus that is part of the genus Orthobunyavirus.
  2. It can not be transmitted from person to person .
  3. It was first recognized in 1999 during an outbreak among farmers in Malaysia.
- Which of the statements given above are **not** correct?
- (a) 1 and 2 only (b) 1 and 3 only  
(c) 2 and 3 only (d) 1, 2 and 3
11. 'EOS-08 Mission' recently seen in the news is launched by
- (a) NASA (b) ISRO  
(c) JAXA (d) Roscosmos
12. Which of the following statements is correct regarding Californium?
- (a) It is a silvery-white synthetic radioactive metal.  
(b) The element is named after the state of California.  
(c) It is a very strong neutron emitter and is used in portable metal detectors for identifying gold and silver ores.  
(d) All of the above.
13. BPalm regimen, recently seen in the news, is related to which of the following diseases?
- (a) Polio (b) Chandipura virus  
(c) Tuberculosis (d) Mpox

14. With reference to the Planet Mars, which of the following statements is/are correct?
1. It is the fourth planet from the Sun and also known as the Red Planet.
  2. It has a very thin atmosphere made of carbon dioxide, nitrogen, and argon.
- 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. Which of the following statements accurately describes the Hayflick limit?
- (a) It is the maximum number of times a normal human cell population will divide before entering senescence.
  - (b) It is the theoretical maximum lifespan of a human being.
  - (c) It is the average number of cell divisions a cancer cell undergoes before becoming immortal.
  - (d) It is the point at which telomeres become critically short, leading to cell death.
16. Which of the following statements regarding Tera Hertz (THz) radiation is **not** correct?
- (a) THz radiation lies in the electromagnetic spectrum between microwaves and infrared radiation.
  - (b) THz waves are ionizing radiation, capable of removing electrons from atoms or molecules.
  - (c) THz technology finds applications in fields such as space communication, security screening, and medical imaging.
  - (d) The unique properties of THz waves, like their non-ionizing nature and ability to penetrate certain materials, contribute to their diverse applications.
17. Which of the following statements is/are correct regarding antimatter?
1. Antimatter particles have the same mass as their matter counterparts but possess opposite electric charge.
  2. A positron is the antiparticle corresponding to a proton.
  3. When matter and antimatter come into contact, they annihilate each other, producing pure energy.
- Select the correct answer using the code given below:
- (a) 1 only (b) 1 and 3 only  
(c) 2 and 3 only (d) 1, 2, and 3
18. With reference to the Kodaikanal Solar Observatory (KoSO), which of the following statements is/are correct?
1. It is known for the discovery of the Evershed Effect in 1909.
  2. It is operated by the Defence Research and Development Organisation (DRDO).
- 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. India's Biotechnology sector comprises which of the following?
1. Biopharmaceuticals
  2. Bio Agriculture
  3. Bioindustrial
  4. Bio IT & Services
- Select the correct answer using the code given below:
- (a) 1, 2 and 3 only (b) 2 and 3 only  
(c) 1, 3 and 4 only (d) 1, 2, 3 and 4

- 20.** NASA has recently launched the Tanager-1 satellite to
- Track methane emissions.
  - Study extraterrestrial gamma radiation.
  - Study heat emissions at the Earth's poles.
  - Remove debris from space.
- 21.** With reference to Sonoluminescence, consider the following statements:
- Sonoluminescence is the emission of light from a bubble in a liquid when it is subjected to powerful sound waves.
  - The exact mechanism of Sonoluminescence is well understood and fully explained by modern science.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
- 22.** ESCAPE mission, recently seen in the news, aims to
- Study heat emissions at the Earth's poles.
  - Investigate the interaction of solar wind and Mars' magnetosphere.
  - Track and measure methane emissions at a global scale.
  - Conduct a comprehensive study of Venus.
- 23.** Consider the following statements about the piezoelectric effect:
- Piezoelectric materials generate an electric voltage when subjected to mechanical stress.
  - The piezoelectric effect is reversible, meaning applying an electric field can cause a mechanical deformation in the material.
  - Piezoelectric materials are typically good conductors of electricity.
  - Piezoelectric materials are limited to natural minerals and cannot be synthetically produced.
- Which of the statements given above are correct?
- 1 and 2 only
  - 1 and 3 only
  - 3 and 4 only
  - 1, 3 and 4
- 24.** With reference to the Chandipura Virus, consider the following statements:
- It is an RNA virus belonging to the Rhabdoviridae family, which also includes the rabies virus.
  - It was first identified in 1965 in Chandipura, a village in Maharashtra.
- Which of the statements given above is/are correct?
- 1 only
  - 2 only
  - Both 1 and 2
  - Neither 1 nor 2
- 25.** Which one of the following is correct regarding listeriosis?
- It is an infectious disease caused by bacteria and is treatable.
  - Its symptoms include fever, chills, and headache and can take up to ten weeks to manifest in some individuals.
  - The infection is especially dangerous for people with weakened immune systems, pregnant women and people over 65.
  - All of the above.

## EXPLANATIONS

1. (a)

**Statement 1 is correct:** A virus is an infectious microbe consisting of a segment of nucleic acid (either DNA or RNA) surrounded by a **protein coat called capsid**.

**Statement 2 is not correct:** Viruses are **not considered living organisms** because they cannot carry out metabolic processes on their own.

- A virus cannot replicate alone; instead, it must infect cells and use components of the host cell to make copies of itself.

2. (a)

**Context:**

- Australia introduces the world's first nationwide program to treat peanut allergies in children.

**About:**

- Under medical supervision at 10 pediatric hospitals across the country, infants will gradually receive increasing doses of peanut powder for two years to reduce their sensitivity to peanuts.

**Need for the programme**

- Australia is referred to as the "**allergy capital of the world**". About one in 10 Australian children develop a food allergy in the first year of their life.
- **Nearly 3 per cent of Australians are affected by peanut allergy** by the time they turn 12 months old.

3. (c)

**What are Nucleotides?**

- Nucleotides are the **building blocks of DNA and RNA**. Each nucleotide consists of a nucleobase, a phosphate group, and a sugar.
- Each nucleotide in DNA has one of four nucleobases: **adenosine, thymine, guanine, and cytosine**.
- A single-nucleotide change is when just one nucleotide in the genome needs to be 'repaired'.

4. (c)

**CRISPR-Cas9**

- **Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR)** is a DNA sequence which is part of the bacterial defense system.
- CRISPR-Cas9 is a unique technology that enables geneticists and medical researchers to **edit parts of the genome by removing, adding or altering sections of the DNA sequence**.
- **Cas9 (CRISPR-associated)** is the name of the protein that transfers resistance.
  - **It is an enzyme** that acts like a pair of **molecular scissors**, capable of cutting strands of DNA.
  - It allows researchers to easily alter DNA sequences and modify gene function.
- CRISPR-based tools rely on the ability of the system to **recognise specific single-nucleotide changes** in the DNA.

5. (d)

**In News:** A recent study has shed light on the crucial role of Kindlins in various types of cancers.

- **Kindlins** are a **group of adapter proteins** found within the **cells of vertebrates** that act as **molecular conductors**, transferring mechanical cues from the extracellular environment to biochemical signals inside the cell.

- Their significance lies in the fact that they are **central to multiple signalling pathways**, making them **potential targets for innovative cancer therapies**.
- These are like backstage coordinators in a complex theatre production. They physically interact with structural proteins, receptors, and transcription factors, triggering a cascade of chemical signals within the cell.
- When Kindlins experience structural disruptions due to **mutations** (often induced by chemical carcinogens like nicotine or UV rays), it can disturb the delicate balance— known as **homeostasis**—required for the body to function correctly.

## 6. (b)

**In News:** The Central Government has notified a list of 24 minerals including Tantalum as Critical and Strategic minerals.

**Statement 1 is correct:** Tantalum is indeed ductile (can be drawn into wires) and has an extremely high melting point.

**Statement 2 is not correct:** Tantalum is actually known for its exceptional resistance to corrosion, including from acids.

**Statement 3 is correct:** Tantalum is widely used in surgical implants (due to its biocompatibility) and in the production of capacitors for electronics.

## 7. (c)

**Statement 1 is correct:** The triboelectric effect is the fundamental phenomenon where two dissimilar materials become electrically charged after they come into frictional contact and are then separated. Triboelectric nanogenerators (TENGs) are devices that utilize the triboelectric effect to convert mechanical energy (such as vibrations or movement) into electrical energy.

**Statement 2 is correct:** The triboelectric series is a list that ranks materials based on their polarity and tendency to gain or lose electrons.

## 8. (d)

**Context:**

- There are billions of atoms and molecules around us in the air and they hit us continuously all the time, creating what we call air pressure.

**Pressure**

- Pressure is the force applied perpendicular to the surface of an object per unit area over which that force is distributed.
  - Hence Pressure is the average force spread over any area.
- Pressure is a **scalar quantity** and the SI unit of pressure is **Pascal (Pa)**.

**Applications of Pressure in daily life**

- **Car Brakes:** Hydraulic brakes use the pressure of a fluid to stop vehicles.
- **Pressure Cookers:** Utilize steam pressure to cook food faster and more efficiently.
- **Blood Pressure Monitoring:** Measuring blood pressure helps diagnose and monitor health conditions.
- **Weather Prediction:** Barometers measure atmospheric pressure to help forecast the weather.
- **Vacuum Cleaners:** Create a low-pressure area to suck up dirt and debris from floors and surfaces.

## 9. (a)

**Statement 1 is correct:** It is commonly known as **elephantiasis** (Haatipaon), is a serious debilitating disease **caused by parasitic worms known as filarial worms**.

- It is transmitted through the **bite of a Culex mosquito** that breeds in dirty/polluted water.

**Statement 2 is not correct:** It is a priority disease that is **targeted for elimination by 2027**.

- In India, **90% of LF burden is contributed by 8 states** - Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Uttar Pradesh, and West Bengal.

10. (d)

**In News:**The World Health Organization (WHO) declared mpox a “public health emergency of international concern” (PHEIC).

**All the statements are incorrect** : The disease mpox (formerly monkeypox) is caused by the monkeypox virus (commonly abbreviated as MPXV), an enveloped **double-stranded DNA virus** of the Orthopoxvirus genus in the Poxviridae family, which includes variola, cowpox, vaccinia and other viruses. The two genetic clades of the virus are clades I and II.

- Mpox can be **transmitted to humans through physical contact** with someone who is infectious, with contaminated materials, or with infected animals.
- The **monkeypox virus was discovered in Denmark (1958)** in monkeys kept for research and the first reported human case of mpox was a nine-month-old boy in the **Democratic Republic of the Congo (DRC, 1970)**.

11. (b)

**Context:** ISRO successfully launched the Earth Observation Satellite ‘EOS-08’ from Satish Dhawan Space Centre, Sriharikota.

**About:**

- The satellite carries **three payloads** namely Electro Optical Infrared Payload (EOIR), Global Navigation Satellite System-Reflectometry payload (GNSS-R), and SiC UV Dosimeter.

**Objectives**

- The primary objectives of the **EOS-08 mission** include designing and developing a microsatellite, creating payload instruments compatible with the microsatellite bus, and incorporating new technologies required for future operational satellites.

12. (d)

**Context:** The police in Bihar’s Gopalganj seized 50 grams of the highly radioactive metal Californium.

**About:**

- Californium is a **silvery-white synthetic radioactive metal** with the atomic number 98 on the periodic table.
- It was first synthesized in **1950 at Berkeley, California**, from where it derives its name, by **bombarding curium with alpha particles**.
- Californium is a very **strong neutron emitter** and is used in portable metal detectors for identifying gold and silver ores, to help identify water and oil layers in oil wells, and detect metal fatigue and stress in aeroplanes.

13. (c)

**Context:** India is set to roll out training of healthcare professionals in administering the BPalm regimen.

**What is the BPalm regimen?**

- It is composed of bedaquiline, pretomanid, linezolid and moxifloxacin (BPalm) for treating multi-drug-resistant or rifampicin-resistant tuberculosis (MDR/RR-TB).
- Recommended by the **World Health Organisation (WHO)** in 2022, currently, TB patients in nearly 40 countries have access to this new regimen.

**Significance**

- The **BPalm protocol** is more effective, has a shorter duration of treatment (six months versus the prevailing 18-24 months), fewer side effects and, most importantly, prevents transmission, making it a pivotal tool in containing and managing TB.
- India, which accounts for around **27 per cent** of global TB cases, stands to benefit significantly. For example, this move is expected to boost the country's **National TB Elimination Programme**, which aims to eliminate the disease by **2025**.

**14. (c)****Planet Mars**

- It is the **fourth planet** from the Sun and is a **cold desert** world. It is half the size of Earth.
- It is sometimes called the **Red Planet**. It's red because of rusty iron in the ground.
- It is also a dynamic planet with **seasons, polar ice caps, canyons, extinct volcanoes**, and evidence that it was even more active in the past.
- It has a very thin atmosphere made of **carbon dioxide, nitrogen, and argon**.

**15. (a)**

The Hayflick limit is a concept in cellular biology that refers to the finite number of times a normal human cell population will divide before cell division stops. This phenomenon is associated with the shortening of telomeres, repetitive DNA sequences at the ends of chromosomes that protect them from degradation. The Hayflick limit is related to cellular aging, not the maximum lifespan of an organism. Cancer cells often bypass the Hayflick limit due to the reactivation of telomerase, an enzyme that lengthens telomeres. This allows them to divide indefinitely, contributing to their uncontrolled growth. While telomere shortening is a key factor in reaching the Hayflick limit, it doesn't necessarily lead to immediate cell death. Instead, it triggers senescence, a state of growth arrest where the cell remains alive but can no longer divide.

**16. (b)**

**Option (a) is correct:** THz radiation does occupy the spectrum between microwaves and infrared.

**Option (b) is not correct:** THz waves are non-ionizing, meaning they lack the energy to dislodge electrons from atoms. This characteristic makes them safer for biological tissues compared to ionizing radiation like X-rays.

**Option (c) is correct:** THz technology has promising applications in space communication, security, and medical imaging.

**Option (d) is correct:** The combination of non-ionizing nature and the ability to penetrate certain materials while being absorbed by others makes THz waves suitable for diverse applications.

**17. (b)**

**Statement 1 is correct:** Antimatter particles do have the same mass as their matter counterparts but with opposite electric charges. E.g. A positively charged positron is an antiparticle to a negatively charged electron

**Statement 2 is not correct:** A positron is the antiparticle of an electron, not a proton. The antiparticle of a proton is an antiproton.

**Statement 3 is correct:** When matter and antimatter come into contact, they annihilate each other, resulting in the production of pure energy.

**18. (a)**

**In News :** Researchers investigated the magnetic field at different layers of the solar atmosphere using data from the Kodaikanal Tower Tunnel Telescope.



**Statement 1 is correct :** The Kodaikanal Solar Observatory (KoSO) is known for the discovery of the Evershed Effect in 1909.

- The Kodaikanal Tower Tunnel Telescope features a sophisticated 3-mirror Coelostat system.
- This setup includes a primary mirror (M1) that tracks the sun, a secondary mirror (M2) that redirects sunlight downward, and a tertiary mirror (M3) that aligns the beam horizontally.

**Statement 2 is not correct :** The Kodaikanal Solar Observatory (KoSO) is operated by the Indian Institute of Astrophysics (IA), and it is located in Kodaikanal, Tamil Nadu.

### 19. (d)

India's Biotechnology sector is **categorised into Biopharmaceuticals, Bio agriculture, Bio IT and Bio Services.**

- **Biopharmaceuticals:** India is one of the biggest suppliers of low cost drugs and vaccines in the world. India also leads in biosimilars, with the most number of biosimilars approved in the domestic market.
- **Bio Agriculture:** With nearly 55% of Indian terrain under agriculture and allied activities, India is one of largest producers of Bt-Cotton and has the 5th Largest Area of Organic Agriculture Land globally.
  - BioAgri, consisting of Bt Cotton, pesticides, marine biotech, and animal biotech has the potential to nearly double its BioEconomy contribution from \$10.5 Bn to \$20 Bn in 2025.
- **Bioindustrial:** The application of biotechnology to industrial processes is transforming manufacturing and waste disposal across the country.
- **Bio IT & Services:** India offers a strong capability in contract manufacturing, research and clinical trials, and is home to the most US FDA approved plants globally outside of the US.

### 20. (a)

**Context:**

- NASA has recently launched the **Tanager-1** satellite to track **methane emissions.**

**How will the Tanager-1 satellite track methane emissions?**

- The satellite will use **imaging spectrometer technology** to track methane and carbon dioxide emissions.
- It will do so by measuring hundreds of **wavelengths of light** that are reflected by Earth's surface.
  - Different compounds in the planet's atmosphere — including methane and carbon dioxide — absorb different wavelengths of light, leaving spectral "**fingerprints**" that the imaging spectrometer can identify.
  - These infrared fingerprints can enable researchers to pinpoint and quantify strong greenhouse gas emissions.

### 21. (a)

**Statement 1 is correct:** Sonoluminescence refers to the phenomenon where a bubble in a liquid emits light when it is subjected to powerful sound waves, causing it to expand and collapse rapidly.

**Statement 2 is not correct:** While the phenomenon of sonoluminescence is observed and studied, the exact mechanism behind it is not fully understood, and there remain aspects that modern science has yet to completely explain.

### 22. (b)

**Context:**

- Jeff Bezos' aerospace venture **Blue Origin** is set to launch its eighth tourist mission to suborbital space using the **New Shepard rocket.**

**About:**

- The flight will carry six people for an 11-minute ride above the **Karman line** (the internationally recognised boundary of space), marking another key milestone for Blue Origin, which has already taken 37 people into space.
- Additionally, Blue Origin is also cooperating with NASA on the **ESCAPADE** (Escape and Plasma Acceleration and Dynamics Explorers) mission, which will investigate the interaction of **solar wind and Mars' magnetosphere**. This mission will launch on Blue Origin's reusable **New Glenn rocket** in October 2024.

**23. (a)**

**Statement 1 is correct:** When a piezoelectric material experiences mechanical stress (compression or stretching), an electric voltage is generated across its faces. This is the core principle of the piezoelectric effect.

**Statement 2 is correct:** The piezoelectric effect is reversible. Applying an electric field to a piezoelectric material can cause it to deform physically, making it useful for actuators.

**Statement 3 is not correct:** Piezoelectric materials are typically insulators or semiconductors, not good conductors of electricity. High conductivity would diminish the voltage generated by the piezoelectric effect.

**Statement 4 is not correct:** While some naturally occurring minerals exhibit the piezoelectric effect, many synthetic materials like ceramics and polymers have also been developed with this property.

**24. (c)**

**Both statements are correct:** Chandipura virus, aka **Chandipura vesiculovirus (CHPV)**, is an **RNA virus** belonging to the **Rhabdoviridae family**, which also includes the rabies virus.

- It was first identified in **1965 in Chandipura**, a village in **Maharashtra**.
- **Spread:** It occurs by the sting of a vector-infected species of sandflies like Phlebotomine sandflies and Phlebotomus papatasi, and some mosquito species such as Aedes aegypti (which is also the vector for dengue).
  - The virus resides in the salivary gland of these insects, and can be transmitted to humans or other vertebrates like domestic animals through bites.

**25. (d)****Context**

- The US has reported more than 50 illnesses and nine deaths in the Listeria outbreak.

**What is listeria and listeriosis?**

- Listeria or Listeria monocytogenes is a **type of bacteria** that can survive on surfaces, such as meat slicers, and in foods, even at **refrigerated temperatures**.
- Listeria-contaminated food can lead to an infection called **listeriosis**.
- The infection is especially **dangerous for people** with weakened immune systems, pregnant women and people over 65.
- Its **symptoms** include fever, chills, and headache and can take up to ten weeks to manifest in some individuals.

**Prevention and Treatment**

- Reheating foods to a sufficiently high temperature before consumption can eliminate the bacteria.
- Also, listeriosis is **treatable** and one of the most prescribed drugs is **Ampicillin**.



# ENVIRONMENT & ECOLOGY

1. With reference to Fin Whale, consider the following statements:

1. It is the second largest mammal in the world.
2. It is listed as Vulnerable on the IUCN Red List.

Which of the statements given above is/are correct?

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

2. Which of the following statements about bent-toed geckos in Northeast India is/are correct?

1. Bent-toed geckos have been discovered from Arunachal Pradesh, Nagaland, Manipur, and Mizoram.
2. They are nocturnal species.

Select the correct answer using the code given below:

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

3. Consider the following statements:

1. Grasslands and savannahs are biodiverse habitats in tropical and temperate regions throughout the world.
2. Banni grasslands are located in the Himalayas.

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 Bhoj Wetland, consider the following statements:

1. Bhoj Wetland comprises two contiguous man-made reservoirs, the Upper Lake and the Lower Lake.
2. The Lower Lake was created by Raja Bhoj in the 11th century.
3. It was designated as a Ramsar site in 2002.

How many of the statements given above are correct?

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

5. With reference to the Ramsar Convention list of wetlands of International importance, consider the following statements:

1. It is an international treaty aimed at conserving wetlands around the world adopted in Iran, in 1971.
2. India has been a party to the Convention since 1975.

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 UN Framework Convention on Climate Change (UNFCCC), consider the following statements:

1. Conference of the Parties (COP) is the supreme decision-making body of the UNFCCC.
2. Industrialized nations agree under the Convention to support climate change activities in developing countries by providing financial support.

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 statements regarding Methanotrophs:

1. Methanotrophs are bacteria that oxidize methane into carbon dioxide and water.
2. Methanotrophs can only grow in environments where methane and oxygen are both present.
3. *Methylococcus oryzae*, a novel methanotroph genus, was first isolated in India.

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

8. The formation of ground level ozone is most favored under which conditions?

- (a) Low temperature and high humidity  
(b) High temperature and low humidity  
(c) High temperature and sunlight  
(d) Low temperature and sunlight

9. With reference to seahorses, consider the following statements:

1. Seahorses are classified as mammals.
2. India is home to a significant portion of the world's seahorse species.
3. Seahorses are primary consumers in the marine ecosystem.
4. Seahorses are protected under both Indian and international laws.

Which of the above statements is/are correct?

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

10. With reference to the Greenhouse Gases, consider the following statements:

1. The gases act like the glass walls of a greenhouse – hence the name, greenhouse gases.
2. Without this greenhouse effect, temperatures would drop to as low as  $-18^{\circ}\text{C}$  ( $-0.4^{\circ}\text{F}$ ); too cold to sustain life on earth.

Which of the statements given above is/are correct?

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

- 11.** Guru Ghasidas-Tamor Pingla Tiger Reserve, recently seen in news, belongs to which of the following regions of India?
- (a) Gujarat (b) Maharashtra  
(c) Madhya Pradesh (d) Chhattisgarh
- 12.** Ground-Level Ozone (O<sub>3</sub>) consists of which of the following?
1. Oxides of nitrogen (NO<sub>x</sub>) 2. Chloro fluoro Carbons  
3. Volatile Organic Compounds (VOCs) 4. Carbon monoxide
- 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.** With reference to the Great Barrier Reef, which of the following statements is/are correct?
1. It is the world’s largest coral reef system located on the western coast of Australia.  
2. The site is home to the dugong also known as sea cow.
- Select the correct answer using the code given below:
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 14.** Which of the following statements about *Ceropegia Shivrayiana* is **NOT** true?
- (a) It is endemic to India.  
(b) It is well-adapted to survive in nutrient-poor soils.  
(c) It is a close relative of *Ceropegia lawii* but differs in certain morphological characteristics.  
(d) It is a parasitic plant that derives nutrients from other plants.
- 15.** With reference to Tiger Reserve of India, Consider the following pairs :
- | <b>Tiger Reserve</b>                        | <b>Region</b> |
|---|---------------|
| 1. Bandipur Tiger Reserve                   | : Tamil Nadu  |
| 2. Sathyamangalam Tiger Reserve             | : Assam       |
| 3. Guru Ghasidas-Tamor Pingla tiger reserve | : Rajasthan   |
- 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
- 16.** Consider the following statements about Neelakurinji:
1. Neelakurinji is a flowering plant that blooms once every 12 years.  
2. The mass flowering of Neelakurinji is known as the ‘Blue Mountains’ phenomenon.  
3. Neelakurinji is endemic to the Western Ghats mountain range in India.
- Which of the above statements are correct?
- (a) 1 and 2 only (b) 1 and 3 only  
(c) 2 and 3 only (d) All of the above
- 17.** Consider the following pairs:
- | <i>Ramsar Sites</i>          | <i>Locations</i> |
|------------------------------|------------------|
| 1. Nanjarayan Bird Sanctuary | Karnataka        |
| 2. Kazhuveli Bird Sanctuary  | Kerala           |
| 3. Tawa Reservoir            | Rajasthan        |

How many of the above *is / are* correctly matched?

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

18. With reference to the Malabar Tree Toad (MTT), which of the following statements is/are correct?

1. The species is endemic to Western Ghats of India.
2. It is listed as Least Concerned under the IUCN Red List of Threatened Species.

Select the correct answer using the code given below:

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

19. With reference to the Silent Valley National Park, which of the following statements is/are correct?

1. The park is located in the Nilgiri hills, Kerala.
2. Kunthipuzha River, a tributary of Bharathapuzha river, passes through the national park.

Select the correct answer using the code given below:

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

20. With reference to the Prokaryotes, consider the following statements:

1. Prokaryotes are single celled organisms that include both bacteria and archaea.
2. They thrive across the entire planet – on land and in water, from the tropics to the poles.

Which of the statements given above is/are correct?

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

21. With reference to the Waggle Dance, which of the following statements is/are correct?

1. It is a mode of communication between bees that plays a crucial role in pollination.
2. It indicates the distance and the direction to the location of a flower patch.

Select the correct answer using the code given below:

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

22. Which of the following statements about permafrost is **not** correct?

- (a) Permafrost is ground that remains completely frozen for at least two consecutive years.
- (b) Permafrost is primarily found in high-latitude regions like the Arctic and subarctic.
- (c) The thawing of permafrost due to climate change can release significant amounts of greenhouse gases, contributing to further warming.
- (d) Permafrost acts as a carbon sink, storing vast amounts of organic matter and preventing its decomposition.

23. Consider the following statements with reference to the orangutan:

1. There are three species of orangutan and all three are listed as critically endangered on the IUCN Red List of Threatened Species.
2. These great apes are only found in the wild on the islands of Borneo and Sumatra.

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 Ethanol Blending in India, consider the following statements:

1. Ethanol blending refers to the practice of mixing ethanol with gasoline to create a fuel mixture that can be used in internal combustion engines.
2. The National Policy on Biofuels outlines a target of 20% ethanol blending in petrol by 2030.

Which of the statements given above is/are correct?

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

25. With reference to the Mettukurinji flower (*Strobilanthes sessilis*), consider the following statements:

1. It belongs to the Acanthaceae family and is endemic to Western Ghats.
2. They flower once every 14 years.

Which of the statements given above is/are correct?

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

26. With reference to the Orangutan, which of the following statements is/are correct?

1. They are the closest living relatives of humans and share 96.4% of Human genes.
2. They are only found in the wild on the islands of Borneo and Sumatra.

Select the correct answer using the code given below:

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

27. Which of the following statements is **not** correct regarding methane?

- (a) It is an invisible but strong greenhouse gas.
- (b) It is the third largest contributor to global warming after carbon dioxide and nitrous oxide.
- (c) It is around 80 times more potent than carbon dioxide in warming the atmosphere over a 20-year period.
- (d) It contributes to the formation of ground-level ozone.

28. Hollongapar Gibbon wildlife sanctuary, recently seen in the news, is located in which of the following Indian States?

- (a) Assam (b) Manipur  
(c) Sikkim (d) West Bengal

29. With reference to the Northern Bald Ibis (*Geronticus eremita*), consider the following statements:

1. The Northern Bald Ibis is found exclusively in the semi-arid deserts of Northern Africa.
2. These birds are monogamous and depend on elder birds to guide them during migration.
3. The Northern Bald Ibis is classified as Critically Endangered by the IUCN.

Which of the statements given above is/are correct?

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

## EXPLANATIONS

1. (c)

**In News:** Japan has expanded its commercial whaling to include fin whales.

**Statements 1 and 2 are correct :** fin whales get their name from an easy-to-spot fin on its back, near its tail.

- It has sleek, streamlined bodies with V-shaped heads.
- It is the **second-largest whale species** on earth, second only to the blue whale.
- It is a fast swimmer and is often found in social groups of two to seven individuals.
- **It is** typically found in deep, offshore waters of all major oceans, primarily in temperate to polar latitudes. They are less common in the tropics.
  - They occur year-round in a wide range of locations, but the density of individuals in any one area changes seasonally.
  - Most migrate from the Arctic and Antarctic feeding areas in the summer to tropical breeding and calving areas in the winter.
- **IUCN Status :** Vulnerable

2. (c)

**In News: Scientists discover six new lineages of bent-toed geckos from the Northeast** (Arunachal Pradesh, Nagaland, Manipur, and Mizoram). The newly discovered species includes Namdapha Bent-Toed Gecko and Siang Valley Bent-Toed Gecko. They are **nocturnal creatures**. They are found along forest streams, rocks and vegetation in multiple locations. Each northeastern state has its own endemic bent-toed gecko.

3. (a)

**Statement 1 is correct:** Grasslands and savannahs are biodiverse habitats in **tropical and temperate regions throughout the world**.

- They cover **nearly 40%** of the earth's total landmass, and are home to many **endemic and at-risk species of plants and animals**.

**Statement 2 is not correct:** The Banni grassland in **Gujarat's Kachchh district** is one of the largest grasslands in the Indian subcontinent

4. (b)

**Statement 1 is correct:** Bhoj Wetland comprises two contiguous man-made reservoirs, the "**Upper Lake**" and the "**Lower Lake**".

**Statement 2 is not correct:** **The Upper Lake** was created by **Raja Bhoj in the 11th century** by the construction of an earthen dam across the Kolans river, and the **Lower Lake** was constructed **nearly 200 years ago**, largely from the overflow of water from the Upper Lake.

**Statement 3 is correct:** Bhoj Wetland was designated as a **Ramsar site in November 2002**.

5. (a)

**Statement 1 is correct: Ramsar Convention** is an international treaty aimed at conserving wetlands around the world. It was adopted in **Ramsar, Iran, in 1971** and entered into force in **1975**.

**Statement 2 is not correct: India** has been a party to the Convention since **1982**.

- Presently India has **82 sites designated as Ramsar sites**.



6. (c)

**Both the statements are correct:** UN Framework Convention on Climate Change (UNFCCC) is an international treaty that came into force in 1994.

- **Conference of the Parties (COP):** It is the **supreme decision-making body** of the UNFCCC and COP meetings are **held annually**.
- **Funds to Developing Countries:** Industrialized nations agree under the Convention to support climate change activities in developing countries by **providing financial support** for action on climate change-- **above and beyond any financial assistance** they already provide to these countries.

7. (d)

**In News:** India's first cultures of indigenous methane-mitigating agents, particularly the novel **methanotroph Methylococcus oryzae**, were reported from rice fields and wetlands in Western India.

**About**

- **Methylococcus oryzae**, discovered at Agharkar Research Institute, promotes rice plant growth and has been documented in various habitats.
- These **bacteria oxidize methane**, a potent greenhouse gas, thus helping in mitigating global warming.
- They are oval and elongated in shape, similar to that of a cucumber, and hence the name '**methane eating cucumbers**'.
- Methane is the second most important greenhouse gas, has 26 times more global warming potential compared to carbon-di-oxide.

8. (c)

Ground Level Ozone (GLO) is a secondary, short-lived pollutant formed in the atmosphere by reaction between oxides of nitrogen and volatile organic compounds (VOCs) in the presence of sunlight. Ground-level ozone formation is a photochemical process, it requires sunlight and temperature to trigger the chemical reactions between nitrogen oxides and volatile organic compounds.

9. (a)

**In News:** The Directorate of Revenue Intelligence (DRI) busted an international smuggling racket engaged in the illegal trade of dried seahorses at the Kempegowda International Airport in Bengaluru.

**Statement 1 is not correct:** Seahorses are fish, not mammals.

**Statement 2 is correct:** India hosts a significant number of seahorse species.

**Statement 3 is not correct:** Seahorses are actually secondary consumers. They feed on small crustaceans and plankton, rather than being primary consumers which typically feed on plants or algae.

**Statement 4 is correct:** Seahorses are protected under the Wildlife Protection Act in India and are also listed under CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora), providing them with international protection.

10. (c)

**[ANS] Both the statements are correct:** Gases that **trap heat in the atmosphere** are called greenhouse gases. The gases act like the glass walls of a greenhouse – hence the name, greenhouse gases.

- Without this greenhouse effect, temperatures would drop to as low as  $-18^{\circ}\text{C}$  ( $-0.4^{\circ}\text{F}$ ); too cold to sustain life on earth.

11. (d)

**Context:**

- The Chhattisgarh Government decided to declare a new tiger reserve covering areas of Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary.

**Guru Ghasidas-Tamor Pingla tiger reserve**

- This will be the **fourth tiger reserve** in the state after **Indravati tiger reserve**, **Udanti-Sitanadi tiger reserve** and **Achanakmar tiger reserve**.
- Also it will be the **country's third largest tiger reserve**.
  - **Nagarjunasagar Srisailem tiger reserve** in **Andhra Pradesh** is India's largest tiger reserve, followed by **Manas tiger reserve** in **Assam**.
- The forests of Guru Ghasidas-Tamor Pingla, located in the northern part of the state, act as a corridor between the **Bandhavgarh tiger reserves (Madhya Pradesh)** and **Palamu tiger reserves (Jharkhand)**.

12. (b)

**Ground-level ozone or the "bad" ozone** that forms closer to the Earth in the air we breathe. This ozone is not usually emitted directly, but rather forms from chemical reactions between **oxides of nitrogen (NO<sub>x</sub>)** and **volatile organic compounds (VOCs)** in sunlight.

13. (b)

**Great Barrier Reef**

- It is the **world's largest coral reef system** located on the **north-east coast of Australia**.
- It contains the world's largest collection of coral reefs, with 400 types of coral, 1,500 species of fish and 4,000 types of mollusc.
- The site is home to the **dugong ('sea cow')** and the **large green turtle**.

14. (d)

Ceropegia shivrayiana is a rare and endemic species, named in honor of Chhatrapati Shivaji Maharaj, was first found in the vicinity of the historic Vishalgad Fort in Maharashtra. This species is notable for its distinctive tubular flowers, which have a unique mechanism for trapping pollinators temporarily to facilitate pollination. It grows primarily in rocky habitats and can survive in soil with few nutrients. While bearing resemblance to its close relative, Ceropegia lawii, Ceropegia shivrayiana sets itself apart through its climbing growth pattern and the presence of fine hairs on its flower stalks (peduncles). Due to habitat destruction and over-collection, Ceropegia shivrayiana is at risk, and conservation efforts are crucial for its survival.

15. (d)

**Bandipur Tiger Reserve**

- It was established in the 1930s as a wildlife sanctuary, which became a tiger reserve in 1973 under **Project Tiger**.
- **It is located** at the tri-junction area of **Karnataka, Tamil Nadu and Kerala**.
- This area has the **River Kabini** in its north and **River Moyar** in its south.

**Sathyamangalam Tiger Reserve (STR)**

- It is located in the Erode district of **Tamil Nadu**.
- It was declared a tiger reserve in 2013.
- It serves as a crucial link between the Eastern and Western Ghats.

**Guru Ghasidas-Tamor Pingla tiger reserve**

- The **Chhattisgarh** Government decided to declare a new tiger reserve covering areas of Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary.
- This will be the **fourth tiger reserve** in the state after **Indravati tiger reserve**, **Udanti-Sitanadi tiger reserve** and **Achanakmar tiger reserve**.

16. (b)

**Statement 1 is correct:** Neelakurinji is known for its unique flowering cycle, blooming only once every 12 years.

**Statement 2 is not correct:** While the mass flowering of Neelakurinji creates a stunning visual spectacle, it is not referred to as the 'Blue Mountains' phenomenon.

**Statement 3 is correct:** Neelakurinji is indeed endemic to the Western Ghats, meaning it is found naturally only in this specific region. The Nilgiri Hills, a part of the Western Ghats, get their name ('Nilgiri' meaning 'blue mountains') from the bluish tinge imparted by the mass flowering of Neelakurinji.

17. (d)

**In News:** Recently, the **Nanjarayan Bird Sanctuary** and **Kazhuveli Bird Sanctuary** in **Tamil Nadu**; and **Tawa Reservoir** of **Madhya Pradesh** have been recognised as wetlands of international importance under the Ramsar Convention, taking the tally to 85.

- All the pairs are **incorrectly** matched.

**Nanjarayan Bird Sanctuary**

- Located in **Tiruppur district**, in Tamil Nadu this sanctuary is a haven for avian biodiversity, especially for **waterfowl habitats**.
- The sanctuary is named after Nanjarayan, a local deity associated with the well-being of birds and animals.

**Kazhuveli Bird Sanctuary**

- Found in **Villupuram, Kazhuveli in Tamil Nadu** that provides essential habitat for various bird species, including migratory visitors.
- With the addition of Nanjarayan and Kazhuveli, **Tamil Nadu now boasts 18 Ramsar sites—the highest number in India**.

**Tawa Reservoir**

- It is located in **Madhya Pradesh's Narmadapuram district**.
- Its inclusion underscores our commitment to preserving these vital ecosystems, which play a crucial role in maintaining biodiversity, **water purification, and flood control**.

18. (a)

**Context**

- According to a study, Climate change may decrease the distribution range of the Malabar Tree Toad by up to **68.7 percent** of the current estimated distribution in India's protected areas (PAs).

**About:**

- MTT is a species of toad **endemic to Western Ghats** of India.
- It is the **only species in the monotypic genus Pedostibes**, also known as **Asian tree toads**.
- It was **first discovered in 1876** and the species was not sighted for more than 100 years.
  - It was later rediscovered in **1980** at **Silent Valley National Park in Kerala**.

- **Characteristics:** It is a slender frog with a moderate-sized head. The **snout is pointed** and the lores are vertical. Females are larger than males.
- **IUCN Status: Endangered**

19. (c)

**Silent Valley National Park**

- It is located in the **Nilgiri hills, Kerala**.
- **The Bhavani River**, a tributary of the Kaveri River, and **Kunthipuzha River**, a tributary of Bharathapuzha river, originate in the vicinity of Silent Valley.
- The park is home to the birds like, Crimson-backed sunbird, Yellow-browed bulbul, Black bulbul, Indian white-eye, and Indian swiftlet.

20. (c)

**Both the statements are correct:** The world's oceans are home to microscopic organisms invisible to the human eye. The tiny creatures, known as "**prokaryotes**", comprise 30% of life in the world's oceans.

- Prokaryotes include **both bacteria and "archaea"**, another type of single-celled organism.
- These organisms are thought to be the **oldest cell-based lifeforms on Earth**. They thrive across the entire planet – on land and in water, from the tropics to the poles.

21. (c)

**Waggle Dance**

- Bees use **two kinds of dances** to communicate information: the waggle dance and the circle dance.
- The purpose of either dance is for some honey bees to **communicate to others the location of a flower patch** with more nectar or pollen.
  - One bee dances while the others watch it to figure out the directions.

**Waggle dance**

- During a waggle dance, the bees move in a figure of eight formation. The dance **indicates both the distance and the direction** to the patch.
- In this the straight line in the roughly figure of eight formation is called the waggle run.

22. (d)

Permafrost is a layer of ground that remains at or below 0°C for at least two consecutive years. It consists of a mixture of soil, rocks, sand, and organic matter, all bonded together by ice. Permafrost is commonly found in polar regions, such as parts of Alaska, Canada, Siberia, and the Arctic tundra. While permafrost does store large amounts of organic carbon, it is not a carbon sink in the traditional sense because it doesn't actively absorb carbon from the atmosphere. Instead, the organic matter trapped in permafrost is prevented from decomposing due to the frozen conditions. When permafrost thaws, this stored organic matter can decompose, releasing greenhouse gases like carbon dioxide and methane, which can contribute to further warming.

23. (c)

**Context:** Malaysia is reconsidering the plan to send its orangutans abroad.

**Orangutan**

- The name orangutan means "man of the forest" in the Malay language.
- They have a characteristic ape-like shape, shaggy reddish fur and grasping hands and feet.
- They are the largest arboreal mammal, spending most of their time in trees.

- They are the closest living relatives of humans and they share 96.4% of Human genes and are highly intelligent creatures.
- There are **three species** of Orangutan - the Bornean, Sumatran and Tapanuli - which differ a little in appearance and behaviour.
- These great apes are **only found** in the wild on the islands of Borneo and Sumatra.
- **IUCN Red List status:** All three orangutan species are critically endangered.

24. (a)

**Statement 1 is correct:** Ethanol blending refers to the **practice of mixing ethanol with gasoline** to create a fuel mixture that can be used in internal combustion engines.

- As the ethanol molecule contains oxygen, it allows the engine to more completely combust the fuel, resulting in fewer emissions and thereby reducing the occurrence of environmental pollution.

**Statement 2 is not correct:** India has set specific targets for ethanol blending. For instance, the National Policy on Biofuels (2018) outlines a target of 20% ethanol blending in **petrol by 2025**.

25. (a)

**Statement 1 is correct:** Endemic to Western Ghats, Mettukurinji (also called Topli karvy) belongs to the **Acanthaceae family**, with 450 species native to wet tropical biomes of Asia and Madagascar.

**Statement 2 is not correct:** Mettukurinji is confined to the **periphery of the northern side of the Western Ghats**, they flower **every seven years**.

- The flower is a **ravishing impression of the Neelakurinji** that blossoms **every 14 years**.

26. (c)

**Orangutan**

- **Characteristics:** Orangutans are the **largest arboreal mammal**, spending most of their time in trees.
  - They are the closest living relatives of humans and they share **96.4%** of Human genes and are highly intelligent creatures.
- **There are three species of Orangutan** – the Bornean, Sumatran and Tapanuli – which differ a little in appearance and behavior.
- **Eating habitats :** Orangutans mainly eat fruits, such as mangoes, lychees and figs, but they also feed on young leaves, flowers, insects, and even small mammals.
- **Habitat and Distribution:** They can occur up to **1,500m** above sea level, most are found in lowland areas and prefer forests in river valleys or floodplains.
  - These great apes are only found in the wild on the islands of Borneo and Sumatra.
- **IUCN status:** All three orangutan species are **critically endangered**.

27. (b)

**Context:**

- NASA has recently launched the **Tanager-1** satellite to track **methane emissions**.

**About methane**

- Methane is an invisible but **strong greenhouse gas**, and the **second largest contributor to global warming after carbon dioxide**, responsible for 30 percent of global heating since the Industrial Revolution.
- It is around 80 times more potent than carbon dioxide in warming the atmosphere over a 20-year period.

- It also contributes to the **formation of ground-level ozone** that causes around one million premature deaths annually.

**28. (a)**

Hollongapar Gibbon wildlife sanctuary is an isolated protected area of evergreen forest located in **Jorhat district of Assam**. The sanctuary was officially established and renamed in **1997**.

- It contains **India's only gibbons** – the hoolock gibbons, and Northeastern India's only nocturnal primate – the Bengal slow loris.

**29. (b)**

**Statement 1 is not correct:** The Northern Bald Ibis historically had a wider range, including the European Alps, Northern Africa, and the Middle East, not exclusively Northern Africa.

**Statement 2 is correct:** The species is monogamous and young birds rely on elder birds to learn the migration routes.

**Statement 3 is not correct:** The Northern Bald Ibis is classified as Endangered by the IUCN, not Critically Endangered.



# MISCELLANEOUS

1. 'Hema panel report' recently seen in the news is related to
  - (a) Women's representation in politics.
  - (b) Gender equality in sports.
  - (c) Representation of women in the armed forces.
  - (d) Working conditions of women in the film industry.
2. Which one of the following contexts is correct for 'Justice P. Ramachandra Raju Commission of 1996' and 'National Commission of 2007'?
  - (a) Conservation of Eco Sensitive Zones
  - (b) Sub Categorisation of Scheduled Castes
  - (c) States Rights to Tax Minerals
  - (d) Election in Local Bodies
3. With reference to the Ceramic Objects, consider the following statements:
  1. Ceramic pottery and figurines were discovered in the Indus Valley Civilization.
  2. The discovery of high-temperature superconductivity in some ceramic materials won two scientists the 1987 physics Nobel Prize.Which of the statements given above is/are correct?
  - (a) 1 only
  - (b) 2 only
  - (c) Both 1 and 2
  - (d) Neither 1 nor 2
4. Consider the following statements with reference to the National Sports Day:
  1. This day is celebrated annually to honor Major Dhyan Chand's legacy in Indian hockey.
  2. The Khelo India movement was announced on this day 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
5. He won the Nobel Peace Prize for his pioneering work in microfinance. He is also known as the 'banker to the poor'.  
Which of the following personalities has been described above?
  - (a) Amartya Sen
  - (b) Mahbub ul Haq
  - (c) Abhijit Banerjee
  - (d) Muhammad Yunus
6. With reference to the Silica Dust, which of the following statements is/are correct?
  1. It is responsible for a respiratory disease which causes a hardening of the lungs.
  2. In India the prescribed exposure limit for free silica dust is 5 mg/m<sup>3</sup>.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 about Annapurthi?
1. It is the world's first 24/7 grain ATM.
  2. It is designed and developed in India.
- Select the correct answer using the code given below:
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
8. Consider the following statements with reference to UNESCO Kalinga Prize for Popularisation of Science.
1. It is funded by the Hyderabad state government in collaboration with the World Bank.
  2. It is UNESCO's oldest prize which aims to bridge the gap between science and society.
  3. It is awarded only to individuals making significant contributions to science and technology communication.
- Which of the statements given above are **not** correct?
- (a) 1 and 2 only (b) 1 and 3 only  
(c) 2 and 3 only (d) 1, 2 and 3
9. Global Employment Trends for Youth (GET for Youth) Report, is released by which of the following organisations?
- (a) World Bank (b) International Labour Organisation  
(c) International Monetary Fund (d) World Trade Organisation
10. Which of the following statements is **not** correct regarding Ahimsa Silk?
- (a) It is produced without harming the silk moth.  
(b) It is derived from the silkworm *Philosamia ricini*.  
(c) The *Philosamia ricini* silkworm is multivoltine, allowing for multiple rearing cycles per year.  
(d) Ahimsa Silk is the only type of silk produced in India.
11. Consider the following statements with reference to the National Film Awards:
1. The awards are given in three sections: Feature Films, Non-Feature Films, and Best Writing in Cinema.
  2. Established in 1947, the awards were initially called 'State Awards'.
- 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 Foster Care in India, consider the following statements:
1. Eligible children for foster care in India are typically over the age of 10 years.
  2. Single individuals are not eligible to be foster care parents.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
13. Which of the following statements accurately describes Zoopharmacognosy?
- (a) It is the study of the medicinal properties of plants used by humans.  
(b) It is the study of the use of medicinal plants by animals for self-medication.  
(c) It is the study of the chemical composition of animal venoms and toxins.  
(d) It is the study of the traditional use of animal products in medicine.



- 14.** Consider the following statements regarding Euthanasia:
1. Active Euthanasia refers to death by not providing essential, necessary and ordinary care or food and water.
  2. The Aruna Shanbaug case upheld the Right to Die in a dignified way as a part of the Right to Life under Article 21.
- Which of the given above statement(s) is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 15.** With reference to the Rashtriya Vigyan Puraskar, consider the following statements:
1. A committee under the chairmanship of the principal scientific adviser selects the awardees.
  2. These awards do not include any cash component.
- 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 Central Banker Report Cards 2024, consider the following statements:
1. It has been published annually by Global Finance since 1994 and ranks central bank governors of nearly 100 countries.
  2. Reserve Bank of India Governor Shaktikanta Das has been ranked among the top three central bankers globally.
- Which of the statements given above is/are correct?
- (a) 1 only (b) 2 only  
(c) Both 1 and 2 (d) Neither 1 nor 2
- 17.** With reference to the National Space Day, which of the following statements is/are correct?
1. The day is observed to remember the contributions of Dr. Vikram Sarabhai.
  2. The theme for National Space Day 2024 is 'Indigenous Technologies for Viksit Bharat'.
- 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.** The term 'iron diplomacy', recently seen in the news, is coined by
- (a) Oleksandr Kamyshev (b) Jim O'Neill  
(c) Franklin D. Roosevelt (d) S. Jaishankar
- 19.** J.S. Verma Committee, recently seen in the news, is related to which of the following?
- (a) Economic Capital Framework (b) Rat hole mining  
(c) Prevention of Corruption (d) Criminal laws
- 20.** T.V. Somanathan committee, recently seen in the news, is related to
- (a) Improving India's performance at Olympics and Paralympics.  
(b) Reviewing pension system for employees.  
(c) Increasing women's representation in politics.  
(d) Ensuring the safety of healthcare professionals.
- 21.** Who among the following has recently been appointed as the new Chairman and CEO of the Railway Board?

- (a) Praveen Sood (b) Satish Kumar  
(c) Jaya Verma Sinha (d) Sivasubramanian Ramann

22. With reference to the SHe-Box, which of the following statements is/are correct?

1. It is a portal for registering complaints of sexual harassment of women at the workplace.
2. It provides real-time monitoring and assured redressal of complaints.

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. (d)

**Context:** The Kerala High Court has extended the stay on a State Information Commission (SIC) order directing the State government to disclose the **K. Hema Committee report** on the **working conditions of women in the film industry** with limited redactions.

**About:**

- The **Hema committee** constituted in the aftermath of a case of sexual assault on an actor in 2017, had submitted the report to the Chief Minister on December 31, 2019.
- Despite repeated demands over the years from various stakeholders, the report had remained shrouded in secrecy.

2. (b)

**In News:** Recently, the Supreme Court of India allowed the sub-categorisation of scheduled castes in reservations, allowing wider protection for underrepresented groups in a 6:1 landmark verdict.

**Committees for Sub Categorisation of Scheduled Castes**

- **Committee of Secretaries:** It is a five members committee comprising the **Secretaries** of the *Home Ministry, Law Ministry, Tribal Affairs Ministry, and Social Justice Ministry* and it is **chaired by the Cabinet Secretary**.

**Previous Commissions**

- Justice P. Ramachandra Raju Commission (1996)
- National Commission (2007)

3. (c)

**Both the statements are correct:** When the **nonmetallic, inorganic material** is heated to a **high temperature** ceramic is created.

- The word comes from the **Greek 'keramos' or 'potter's clay'**, speaking to a common application of ceramics in ancient times.
- Archaeologists have discovered ceramic pottery and figurines in the ruins of various ancient civilisations, including those in the **Indus Valley and in Keezhadi in Tamil Nadu**.
- The discovery of **high-temperature superconductivity** in some ceramic materials won **two scientists the 1987 physics Nobel Prize**.

4. (c)

**Context:**

- National Sports Day is celebrated annually on **29th August**, to emphasize the importance of sports and physical activities and to honor **Major Dhyan Chand's** legacy in Indian hockey.

**About:**

- First observed in **2012**, National Sports Day is also an occasion to honour India's sporting heroes with prestigious awards.
- Over the years, the government has utilised this day as a platform to launch various sports schemes, such as the **Khelo India movement** (announced in 2018).

**Major Dhyan Chand**

- Born on August 29, 1905, he played a key role in India's **three consecutive gold** hauls at the **Olympic Games** - in 1928, 1932 and 1936.
- His mastery of the game and ball control was so dazzling that it earned him the epithets '**Hockey Wizard**' and '**The Magician**'.

**5. (d)**

**Context:** Nobel laureate Muhammad Yunus was sworn in as the head of Bangladesh's interim government following the ousting of Prime Minister Sheikh Hasina.

**Who is Muhammad Yunus?**

- Born in 1940, in the pre-independence undivided Bengal presidency, Muhammad Yunus is known as the '**banker to the poor**' as he often took loans from larger banks and redistributed them as microcredit to poor people.
- In 1983, he established the **Grameen Bank** (village bank) in Bangladesh, fueled by the belief that **credit is a fundamental human right** which later became a global model for microfinance.

**Awards and recognitions**

- Muhammad Yunus won the **Nobel Peace Prize** for his efforts in micro-finance in 2006 and has also won numerous other accolades such as the **World Food Prize** in 1994 from the World Food Prize Foundation, USA, and Bangladesh's highest award, **the Independence Day Award**, in 1987.

**6. (a)****Silica Dust**

- Silica dust or silica crystals, are found in soil, sand, concrete, mortar, granite and artificial stone.
  - When the **materials are cut or drilled, crystalline silica is released** into the air as a very fine dust.
- When **respirable crystalline silica (RCS)** is breathed in, it can cause a condition known as **silicosis**.
  - **Silicosis** is a respiratory disease which causes a **hardening of the lungs**. This can be disabling or even fatal.

**Exposure limit**

- The United Kingdom's occupational limit for silica dust exposure is **0.1 mg/m<sup>3</sup>**. It is in line with most European countries, including France, Austria, and Switzerland.
  - Researchers have proposed the exposure limits to **0.05 mg/m<sup>3</sup>**, which is in-line with US standards.
- **In India** the prescribed exposure limit (PEL) for free silica dust is **0.15 mg/m<sup>3</sup>**.

**7. (b)**

**In News:** Odisha's first grain ATM 'Annapurti' inaugurated in Bhubaneswar.

**About 'Annapurti'**

It is India's first 24/7 "Grain ATM." This innovative automated machine is designed to dispense food grains to beneficiaries under the National Food Security Act (NFSA). It is a Made-in-India product, conceptualized, designed, and developed by the World Food Programme (WFP) India.

## 8. (b)

**In News:** The Ministry of Science and Technology (DST) has withdrawn its annual contribution to the UNESCO Kalinga Prize.

**Statements 1 and 3 are not correct :** the UNESCO Kalinga Prize for Popularisation of Science was established in **1951** following a donation from Mr. Bijoyanand Patnaik, Founder and President of the Kalinga Foundation Trust.

- **Eligibility:** Individuals, institutions, NGOs, or entities making significant contributions to science and technology communication.
- **Donors:** Kalinga Foundation Trust, Government of the State of Orissa, Government of India (Department of Science and Technology).

**Statement 2 is correct :** It is UNESCO's oldest prize.

- The prize winner is selected by UNESCO's Director-General on the recommendation of a five-member jury.
- The award is presented during the World Science Day celebrations in Budapest, alternating with India.

## 9. (b)

**The International Labour Organization (ILO)** has released its report titled "Global Employment Trends for Youth 2024 (GET for Youth).

- The GET for Youth looks back on what has been achieved since the dawn of the twenty-first century while also looking ahead to what may lay in store for youth employment in an era characterized by crises and uncertainties.
- ILO is an United Nations Agency established in **1919** as part of the Treaty of Versailles that ended World War I, and it became the **first specialized agency of the UN in 1946**.
- It has **187 Member states**.
- It sets labour standards, develops policies and devises programmes promoting decent work for all women and men.

## 10. (d)

**Option (a) is correct:** Ahimsa Silk is known for its ethical production process where the moth is allowed to emerge naturally from the cocoon.

**Option (b) is correct:** Ahimsa Silk is produced from the Philosamia ricini silkworm.

**Option (c) is correct:** The Philosamia ricini silkworm is multivoltine, meaning it can produce several generations in a year, contributing to the potential for increased Ahimsa Silk production.

**Option (d) is not correct:** While Ahimsa Silk is an important type of silk produced in India, it is not the only one. India produces all five major types of silk, including Mulberry, Eri, Tropical & Temperate Tasar, and Muga.

## 11. (a)

**Context:** The Ministry of Information and Broadcasting (I&B) has announced the 70th National Film Awards for the year 2022.

**About:**

- The National Film Awards are the most prestigious film awards in India and are given in **three sections:** Feature Films, Non-Feature Films, and Best Writing in Cinema.

**History**

- The National Film Awards were **established in 1954**, when the awards were given for the films of the year 1953.

- The awards were initially called '**State Awards**' and were limited to recognising the best films from a dozen regional languages.
- The first Best Actor and Best Actress awards were given in 1968.

12. (d)

**Both the statements are not correct:** Foster care involves placing a child with either **extended family members or unrelated individuals temporarily**.

- Eligible children for foster care in India are **typically over the age of six**, residing in childcare institutions, and without suitable guardians.
- **The Women and Child Development (WCD) Ministry** has released the revised model foster care guidelines.
- It has broadened the scope of foster care in India by **permitting single individuals** — regardless of their marital status — to foster children, with the **option of adoption after two years**.

13. (b)

Zoopharmacognosy specifically focuses on the self-medication behavior of animals, observing how they utilize plants and other natural substances for their own health and well-being. It sheds light on the innate ability of animals to identify and utilize natural remedies. It can potentially lead to the discovery of new medicinal compounds for humans and animals. It underscores the importance of biodiversity conservation for animal health and well-being.

14. (b)

**Statement 1 not correct:** Active euthanasia involves deliberate action to end a person's life, such as administering a lethal injection. Withholding essential care is considered passive euthanasia.

**Statement 2 is correct:** The Aruna Shanbaug case was a landmark judgment where the Supreme Court of India recognized passive euthanasia under strict guidelines. It essentially linked the right to die with dignity with the fundamental right to life (Article 21).

15. (c)

**In News:** Recently, the President of India presented the Rashtriya Vigyan Puraskar-2024 at Rashtrapati Bhavan.

**Rashtriya Vigyan Puraskar**

- It is a prestigious award that honours outstanding contributions to science and technology, and recognises exceptional scientists across various categories.
- It comprises four kinds of awards –Vigyan Ratna, Vigyan Shri, Vigyan Yuva, and Vigyan Team.
- These awards **do not include any cash component**; instead, they bestow a **certificate and a medallion** on the awardee.
- A committee (constituted annually) under the **chairmanship of the principal scientific adviser** selects the awardees.

16. (c)

**Both the statements are correct:** Central Banker Report Cards honour those bank leaders whose strategies outperformed their peers through originality, creativity and tenacity.

- It has been published annually by Global Finance **since 1994 and ranks** central bank governors of nearly 100 countries.
- **Reserve Bank of India Governor Shaktikanta Das** has been ranked among the **top three central bankers globally** for the second consecutive year **by US-based Global Finance magazine**.

17. (d)

**Both the statements are not correct.**

**News**

- On August 23, 2024 India celebrated its maiden **National Space Day** with the theme **“Touching Lives while Touching the Moon: India’s Space Saga.”**

**About:**

- On August 23, 2023, India became the **fourth** country to land on the moon and the **first** to reach its southern polar region.
- To honour this landmark achievement, the day was announced as **“National Space Day”**.

**What are ISRO’s future mission plans?**

- The space agency is in full swing to achieve another milestone in its space endeavours, with the launch of the **Gaganyaan mission**, which will demonstrate India’s indigenous capability to undertake human spaceflight missions to **Low Earth Orbit (LEO)**.
- ISRO is also aiming to set up an **Indian Space Station** by 2035 and send the **first Indian to the moon** by 2040.
- Apart from this, ISRO is developing a **new generation launch vehicle** and working towards interplanetary missions, including a space vehicle to orbit **Venus** and one that will land on **Mars**.

18. (a)

**Context:**

- India’s Prime Minister Narendra Modi boarded **‘Train Force One’** from Poland to travel to the Ukrainian capital Kyiv.

**About:**

- Foreign dignitaries visiting Kyiv have been taking the train ever since Ukraine’s airspace was closed following the Russian invasion in February 2022.

**Train Force One: A Symbol of Iron Diplomacy**

- Painted in blue and yellow (the colours of Ukraine’s flag), the train’s 10-hour, 700-odd-km journey begins at Przemyśl Główny station in Poland, located around 400 km southeast of Warsaw, close to the country’s border with Ukraine, and ends at Kyiv.
- The act of transporting world leaders from Poland to Ukraine via rail is also known as **“iron diplomacy”**, a term coined by **Oleksandr Kamyshin** (Minister for Strategic Industries of Ukraine).

19. (d)

**Context:**

- The recommendations of **Justice J.S. Verma Committee** was in news, after the clamour of voices seeking the death penalty for the accused of the rape and murder of a doctor in Kolkata.

**Background**

- The **Justice J.S. Verma Committee recommendations**, which led to the **amendment of criminal laws in 2013**, had said it was not inclined to recommend the death penalty for rape even for the rarest of rare cases.
- The committee pointed out that seeking the **death penalty would be a regressive step** in the field of sentencing and reformation.

20. (b)

**Context:**

- The Union Cabinet, chaired by the Prime Minister Narendra Modi has approved the **Unified Pension Scheme (UPS)**.

**About:**

- In 2023, amid the growing concerns over the **National Pension System (NPS)**, Prime Minister Narendra Modi constituted a committee under the chairmanship of **Cabinet Secretary T.V. Somanathan** to review the NPS, which eventually came up with the UPS proposal.
- The UPS (Effective from April 1, 2025,) is set to benefit **23 lakh** central government employees immediately and this number could increase **up to 90 lakhs** if state governments opt to join the scheme.

**The salient features of the UPS are:**

- **Assured pension:** It gives **50%** of the average basic pay drawn over the last 12 months prior to superannuation for a minimum qualifying service of **25 years**.
- **Assured family pension:** It provides a guaranteed family pension equivalent to **60%** of pension of the employee immediately before his/her demise.
- **Assured minimum pension:** It also assures minimum pension of **Rs 10,000** per month on superannuation, provided the employee has completed at least **10 years** of service.

**21. (b)****Context**

- The Appointments Committee of the Cabinet (ACC) approved the appointment of **Satish Kumar** as the Chairman and CEO of Railway Board.

**About:**

- He is an officer from the **1986** batch of the Indian Railway Service of Mechanical Engineers (IRSME).
- Mr. Kumar will replace **Jaya Verma Sinha**, who is the first lady Chairperson of the Railway Board.

**22. (c)****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.
- The portal through a designated nodal officer will enable **real-time monitoring** of complaints.

