DAILY MCQs COMPILATION with EXPLANATIONS

January 2024





Table of Contents

*	History & Culture	3
*	Economy	18
*	Indian Polity & Constitution	32
*	Geography	44
*	Government Schemes/ Initiatives	50
*	Defence / Internal Security	60
*	International Relations	66
*	Science and Technology	84
*	Environment & Ecology	99
*	Miscellaneous	117



HISTORY & CULTURE

- 1. Which one sof the following is the lone Mixed World Heritage site in India?
 - (a) Western Ghats
 - (b) Kaziranga National Park
 - (c) Khangchendzonga National Park
 - (d) Dholavira: a Harappan City
- **2.** With reference to the the *Rajon ki Baoli,* sometimes mentioned in the news, consider the following statements:
 - 1. It was built by Daulat Khan in the reign of Ibrahim Lodi.
 - 2. It is an example of Indo-Islamic architectural design.

Which 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 Sir Syed Ahmed Khan, which of the following statements is/are correct?
 - 1. He founded the Muhammadan Anglo-Oriental College (MAO College) in 19th A.D.
 - 2. He was the editor of the newspaper Al-Hilal.

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 Sapinda Marriage, consider the following statements:
 - 1. It is between individuals who are related to each other within a certain degree of closeness.
 - 2. It is prohibited under the Hindu Marriage Act, 1955 (HMA) without any exception.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 5. Which of the following statements are correct about Parakram Diwas?
 - 1. It has been celebrated every year on January 26 since 2014.
 - 2. It commemorates the birth anniversary of the freedom fighter Subhash Chandra Bose.
 - 3. During the Parakram Diwas 2024 programme, the 'Bharat Parv' will be launched to showcase the nation's diversity.

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
- **6.** With reference to the *'Karpoori Thakur'*, somewhere appeared in the news, consider the following statements:
 - 1. He was a member of the All India Students Federation (AISF).

- He played a major role in solving the issue of Partition of Bengal (1905). 2. Which of the statements given above is/are correct? 1 only (b) 2 only (c) Both 1 and 2 Neither 1 nor 2 (d) With reference to the Srimanta Sankardeva, consider the following statements: 1. He is a revered Vaishnavite reformer-saint from Assam.
- 7.
 - 2. He was a contemporary to the Guru Nanak Dev.
 - 3. He propagated the Ek Saran Naam Dharma.

How many statements given above are correct?

- Only one (a)
- (b) Only two
- All three (c)
- (d) None
- 8. With reference to the Batadrava Than, which of the following statements is/are correct?
 - It is a sacred site of Vaishnavites located in Assam. 1.
 - The site is the birthplace of saint Srimanta Sankardeva.

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. The Chakaliya Community, sometimes seen in the news, is associated with which of the following Indian states?
 - Odisha (a)
 - (b) Kerala
 - (c) Maharashtra
 - (d) Pradesh
- 10. The term 'Madhika', was sometimes appeared in the news, is in the context of:
 - A Language
 - The boundary wall of the temple (b)
 - (c) An urban settlement
 - (d) Water harvesting technique
- 11. Which of the following languages is /are given classical status in the Eighth Schedule of the Indian Constitution?
 - 1. Kannada
 - 2. Sanskrit
 - 3. Malayalam
 - 4. Dogri

Select the correct answer using the codes given below:

- 1 and 2 only (a)
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3 only
- **12.** It is a style of temple architecture in which the idol of the deity rests in the garbha griha (sanctum sanctorum), towering over the garbha griha is the shikhara.

Which among the following Style of Temple Architecture is described above?

- (a) Dravidian Style
- (b) Kalinga Architecture
- (c) Nagara Style
- (d) None

13. With reference to the Somnath temple, which of the following statements is/are correct?

- 1. It is located in Saurashtra region of Gujarat on the western coast.
- 2. The temple is constructed in Chalukya style of Hindu temple architecture.

Select the correct answer using the code given below:

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

14. Consider the following statements with reference to Veerbhadra Temple.

- 1. It is also known as the Lepakshi temple which is situated in Andhra Pradesh.
- 2. It is primarily dedicated to the fiery incarnation of Lord Vishnu.
- 3. Mahmud Ghazni's last major raid was on this Temple.

How many of the statements given above are correct?

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

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

- 1. It has the status of UNESCO's World Heritage Site.
- 2. Vijaya Stambha is located in the vicinity of the fort.

Which 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 Jagannath Temple, which of the following statements is/are correct?

- 1. It was built during the Pallava dynasty in the 7th century.
- 2. It is built in the Kalinga style of architecture.

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. Which one of the following structures is called a 'white pagoda'?

- (a) Konark temple
- (b) Jagannath temple
- (c) Kailasa temple
- (d) Badrinath temple

18. The Ekambareswarar temple complex in Mylapore is associated with which one of the famous personalities?

- (a) Kandukuri Veeresalingam
- (b) Thiruvalluvar

- (c) Periyar
- (d) Tyagaraja
- 19. With reference to the Ganga Sagar Mela, which of the following statements is/are correct?
 - 1. It is held in Uttar Pradesh, on Makar Sankranti every year.
 - It is the second largest congregation of pilgrims in India, after the Kumbh Mela.

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. 'Kalaram Temple', recently seen in the news, is located in which of the following states?
 - (a) Uttrakhand
 - (b) Maharashtra
 - (c) Odisha
 - (d) Madhya Pradesh
- **21.** Makaravilakku is an annual festival of great importance held every year during Makar Sankranti in which of the following states?
 - (a) Karnataka
 - (b) Kerala
 - (c) Odisha
 - (d) Tamil Nadu
- 22. Which one of the following is not an officially recognised classical language of India?
 - (a) Odia
 - (b) Sanskrit
 - (c) Bangla
 - (d) Tamil
- **23.** He played an important role in introducing the philosophies of Yoga and Vedanta to the West. Netaji Subhas Chandra Bose had called him the "Maker of Modern India". He is:
 - (a) Ramakrishna Paramhansa
 - (b) Swami Vivekananda
 - (c) Raja Ram Mohan Roy
 - (d) Rabindranath Tagore
- 24. With reference to Indian Handicraft, Consider the following pairs:

Handicraft
Kapdaganda shawl : Odisha
Chakhesang Shawls : Nagaland
Pashmina Shawl : Kashmir

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
- **25.** The 'Kateel Mela', sometimes appeared in the news, is related to which one of the following Indian states?
 - (a) Karnataka
 - (b) Arunachal Pradesh
 - (c) Himachal Pradesh

(d) Punjab

26. With reference to Indian paintings, consider the following pairs :

PaintingState1. Lanjia Saura : Odisha2. Warli : Maharashtra

3. Madhubani : Bihar

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

27. With reference to the Geographical Indication (GI) tag, which of the following statements is/are correct?

- 1. It is a sign used on products that have a specific geographical origin.
- 2. The registration of a GI tag is valid for a period of 5 years 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

28. Consider the following statements regarding Pravasi Bhartiya Diwas:

- 1. It is celebrated every year to commemorate the return of Mahatma Gandhi to India from Japan.
- 2. On this day, only NRIs are awarded for their contribution in spreading Indian culture abroad.

Which of the statements given above is/are correct?

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

29. With reference to the Madras Music Academy, consider the following statements:

- 1. Nritya Kalanidhi Award is presented in the field of dance every year by the Madras Music Academy.
- 2. Madras Music Academy also confers the Sangita Kalanidhi Award.

Which of the statements given above is/are correct?

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

30. Consider the following pairs:

Toys State

1. Galar Putul Andhra Pradesh

2. Thigda dhingla Gujarat

3. Etikoppaka bommalu Tamil Nadu

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

31. With reference to the *Kadamba inscription in Indian history*, sometimes appeared in the news, consider the following statements:

- 1. It highlighted the historical and socio-cultural importance of Pandya rulers.
- 2. Its epigraph is engraved in Tamil and Nagari characters.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **32.** With reference to the history of India, the terms like '*Perjunka, Bilkoda and Kirukula*' were related to:
 - (a) Architecture
 - (b) Taxation
 - (c) Religion
 - (d) Language
- **33.** With reference to the Poila Boisakh, consider the following statements:
 - 1. It is the 1st day of the month of Boisakh of Bengali calendar year commencing Bengali New Year.
 - 2. It has been declared as the state day by the West Bengal 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
- **34.** Which of the following wars is related to the Treaty of Yandabo?
 - (a) Anglo-Maratha War
 - (b) Anglo-Burmese War
 - (c) Anglo-Sikh War
 - (d) Anglo-Mysore War

EXPLANATIONS

1. (c)

Khangchendzonga National Park

World Heritage sites:

- World Heritage sites are landmarks or areas designated by UNESCO (United Nations Educational, Scientific and Cultural Organization) for having cultural, historical, scientific, or other forms of outstanding value to humanity.
- It derives its mandate from the **World Heritage Convention of 1972**.
- Criterias: Sites are nominated by individual countries and evaluated by the World Heritage Committee based on specific criteria.
 - These criteria consider factors like cultural significance, architectural uniqueness, historical importance, and ecological diversity.
 - Only sites deemed to be of exceptional universal value are inscribed on the World Heritage List.
- Types of World Heritage sites:

- Cultural: Includes historic buildings, important archaeological sites, monumental sculpture or painting
- o **Natural:** Restricted to those natural areas like having natural phenomena
- o **Mixed:** Sites that encompass both cultural and natural significance.
- At present in India, there are 42 World Heritage sites out of which 34 are cultural sites, seven are natural sites and one is a mixed site.
- o **Khangchendzonga National Park,** located in **Sikkim**, is the only Mixed World Heritage in India. It got recognition in 2016.

2. (c)

In News: Rajon ki Baoli (a stepwell and a reservoir in which water can be stored) in the Mehrauli Archaeological Park of Delhi, India, was recently in the news.

Statement 1 is correct:

- Rajon ki Baoli: It was built by the Daulat Khan in 1516 (at the reign of the Ibrahim Lodi), meant to serve the needs of masons (Raj Mistri).
 - O The name 'Rajon Ki Baoli' comes from the masons who were living at the Baoli and using its water.

Statement 2 is correct:

• The structure is described as a 'U-shaped Baoli with its natural springs as source water' and is an example of Indo-Islamic design.

It includes a mosque with a chhatri (dome-shaped pavilion) and a grave, although it is unknown who is buried in the tomb.

3. (a)

Statement 1 is correct and Statement 2 is not Correct.

Sir Syed Ahmed Khan

- Sir Syed Ahmad Khan (17 October 1817 27 March 1898), was an Indian Muslim reformer, philosopher, and educationist, in nineteenth-century British India.
- In 1877 he founded the **Muhammadan Anglo-Oriental College** (MAO College) at Aligarh to address Muslim educational backwardness while protecting Islamic values.

Maulana Abul Kalam Azad was the editor of the newspaper Al-Hilal.

4. (a)

Statement 1 is correct: A sapinda marriage is one between individuals who are related to each other within a certain degree of closeness.

- Sapinda relationships for the purposes of the HMA are defined in Section 3 of the Act.
 - Two persons are said to be sapindas of each other if one is a **lineal ascendant of the other** within the limits of sapinda relationship, or if they have a **common lineal ascendant** who is within the limits of sapinda relationship with reference to each of them.

Statement 2 is not correct: Section 5(v) of the Hindu Marriage Act, 1955 (HMA) prohibits marriage between two Hindus if they are "sapindas" of each other.

• The sole exception can be found within the same provision is **when the customs of each individual permits sapinda marriages.**

It states that a custom has to be "continuously and uniformly observed for a long time", and should have gained enough legitimacy among Hindus in a local area, tribe, group, or family, such that it has obtained "the force of law".

5. (b)

Statement 1 is not correct.

The Parakram Diwas:



- The parakram diwas is celebrated on the occasion of the **birth anniversary** of **freedom fighter Netaji Subhas Chandra Bose** on **January 23** every year.
- Parakram Diwas has been **celebrated annually since 2021**. The inaugural event took place at Victoria Memorial Hall, **Kolkata**.
- In 2022, a hologram statue of Netaji was unveiled at India Gate.
- In 2023, 21 largest unnamed islands of Andaman & Nicobar Islands were named after the 21 Param Vir Chakra awardees and a model of National Memorial dedicated to Netaji which was supposed to be built on Netaji Subhas Chandra Bose Dweep, was unveiled.

During the **Parakram Diwas 2024 programme**, the **'Bharat Parv'** organized by the **Ministry of Tourism** will be launched **to showcase the nation's diversity** with Republic Day Tableaux and cultural exhibits.

6. (a)

• Recently, the Government of India conferred 'Bharat Ratna' (India's highest civilian award) to Karpoori Thakur (posthumously) on his 100th birth anniversary.

Statement 1 is correct:

- Karpoori Thakur was greatly influenced by Mahatma Gandhi and Satyanarayan Sinha.
- He joined the **All India Students Federation (AISF)**, the oldest student organisation in India, during his schooling days.
- He was inspired by Indian nationalistic thought, and left his graduation studies to join the Quit India Movement, a massive mobilisation started by Mahatma Gandhi in 1942 to force the colonial British rulers to leave India.

Statement 2 is not correct:

• Karpoori Thakur was **born** on **January 24, 1924**, in Pitaunjhia village in Samastipur District of Bihar. The village is now known as **'Karpuri Gram'**.

Partition of Bengal was announced in 1905 by Lord Curzon, much before the birth of Karpoori Thakur.

7. (c)

All the Statements are correct.

Srimanta Sankardeva

- He is a revered Vaishnavite reformer-saint from Assam.
- The Batadrava Than, is located at the birthplace of Srimanta Sankardeva (1449-1568) in Nagaon district, of Assam.
- He was a contemporary to the Guru Nanak Dev.

Philosophy of Srimanta Sankardeva

- Teaching: His teaching focused on prayer and chanting (naam) instead of idol worship.
- **Dharma:** His dharma was based on the four components of deva (god), naam (prayers), bhakats (devotees), and guru (teacher).

• **Ek Saran Naam Dharma:** The saint propagated the Ek Saran Naam Dharma, focussed on worship in the form of bhakti (devotion) to Lord Krishna, through singing and congregational listening of His name and deeds.

Sankardeva espoused a society based on **equality and fraternity**, free from caste differences, orthodox Brahmanical rituals and sacrifices.

8. (c)

Batadrava Than

- The Batadrava Than, is one of the most sacred sites for Assamese Vaishnavites and was established by Srimanta Sankardev in 1494 A.D.
- **Location:** It is located at the birthplace of revered Vaishnavite reformer-saint Srimanta Sankardeva (1449-1568) in Nagaon district, of Assam.

Architecture: The campus encompasses diverse structures such as Natghar (Drama hall), Alohighar (Guest room), Sabhaghar (Assembly hall), Rabhaghar (Music room), Hatipukhuri, Aakashi Ganga, Doul mandir (festive temple), and others.

9. (b)

Chakaliya Community: They were once nomadic and worshippers of Thiruvenkatramana and Mariamma.

• They migrated from the hilly regions of Karnataka to northern Malabar in Kerala. Initially recognized as a Scheduled Tribe, they were later included in the Scheduled Caste category in Kerala.

10. (a)

Madhika: It is a language spoken by the Chakaliya community, and is fast becoming extinct with the younger generation opting for Malayalam.

It sounds similar to Kannada, and it encompasses Telugu, Tulu, Kannada, and Malayalam.

11. (d)

The Eighth Schedule to the Constitution of India lists the official languages of the Republic of India. Part XVII of the Indian Constitution deals with the official languages in Articles 343 to 351.

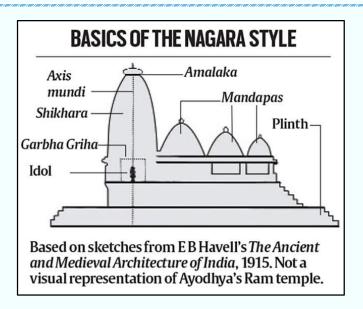
- The eighth schedule includes the recognition of the following 22 languages:
- Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Nepali, Odia, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, Urdu, Bodo, Santhali, Maithili and Dogri are the 22 languages presently in the eighth schedule to the Constitution.
 - 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 in 2003.

Currently, six languages enjoy the 'Classical' status: **Tamil** (declared in 2004), **Sanskrit (2005), Kannada** (2008), **Telugu** (2008), **Malayalam** (2013), and **Odia** (2014).

12. (c)

Nagara temples are built on a **raised plinth**, with the **garbha griha** (sanctum sanctorum) — where the idol of the deity rests — the most sacred part of the temple.

- Towering over the garbha griha is the **shikhara** (literally 'mountain peak'), the most distinguishable aspect of Nagara style temples.
- It also comprises a **circumambulatory passage** around the garbha griha, and one or more mandapas (halls) on the same axis as it.
- Elaborate murals and reliefs often adorn its walls.



13. (c)

Both the Statements are correct.

About Somnath temple

- It is located in **Prabhas Patan** near Veraval in Saurashtra on the western coast of **Gujarat**.
- It means "The Protector of the moon god".
- It is believed to be the first among the twelve jyotirlinga shrines of Shiva.
- The site of Somnath has been a pilgrimage site from ancient times on account of being a **Triveni** sangam (the confluence of three rivers Kapila, Hiran and Sarasvati.
- Mahmud Ghazni attack: Mahmud's last major raid was on Somnath temple in Saurashtra on the western coast of Gujarat in 1025 CE
- Reconstructed several times in the past after repeated destruction by several Muslim invaders and Portuguese
 - The present temple was reconstructed in **Chaulukya style of Hindu temple** architecture and completed in May 1951.

The reconstruction was completed by Vallabhbhai Patel.

14. (a)

In News : The Prime Minister performed darshan and puja at Veerbhadra Temple in Andhra Pradesh.

Statement 1 is correct : Veerbhadra Temple is also known as the Lepakshi temple(Andhra Pradesh)

o The literal meaning of the word is Lepa + Akshi, an embalmed eye or a painted eye.

Statements 2 and 3 are not correct: It is dedicated to Veerabhadra (the fiery incarnation of Lord Shiva).

- Notable features: It has shrines dedicated to Shiva, Vishnu, Papanatheswara, Raghunatha, Rama and other deities.
 - o It exhibits the interchange of human values and socio-cultural traditions from 11th century Chalukyan Period to 15th century early Vijayanagara period.

Mahmud Ghazni's last major raid was on **Somnath temple in Saurashtra o**n the western coast of Gujarat in 1025 CE.

15. (c)

Statement 1 is correct:

- Chittorgarh Fort: It is one of the largest living forts in India, and was the capital of Mewar.
- It is one of the six hill forts of Rajasthan having the status of UNESCO's World Heritage Site.

O The other forts having the same status are Kumbhalgarh, Jaisalmer, Ranthambhore (Sawai Madhopur), Gagaron (Jhalawar) and Amber (Jaipur).

Statement 2 is correct:

• Architecture and Structures: The fort covers 65 historic structures, which include four palaces, 19 large temples, 20 large water bodies, 4 memorials, and a few victory towers.

Vijaya Stambha, an imposing victory monument **constructed by the Rana Kumbha of Mewar in 1448 CE** to commemorate his victory over the army of Malwa.

16. (b)

Statement 1 is not correct and statement 2 is correct.

Jagannath Temple

- Jagannath Temple is a 12th-century Hindu shrine dedicated to Jagannath, a form of Vishnu.
- Located in: Puri, Odisha
- Built in: 12th century by Anantavarman Chodaganga, the first king of the Eastern Ganga dynasty.
- It is **one of the Char Dhams**, four most important pilgrimage sites in Hinduism and also called **White Pagoda** for its colour the way **Konark Temple is called 'Black Pagoda'** due to its dark colour.
- The temple is a massive structure made of sandstone and granite. It is divided into two parts: the Jagamohan, or audience hall, and the Garbhagriha, or sanctum sanctorum.

It is built in the Kalinga style of architecture.

17. (b)

Jagannath Temple:

- Jagannath Temple is a **12th-century Hindu shrine** dedicated to **Jagannath, a form of Vishnu**.
- Located in: Puri, Odisha
- Built in: 12th century by Anantavarman Chodaganga, the first king of the Eastern Ganga dynasty.
- It is **one of the Char Dhams**, four most important pilgrimage sites in Hinduism and also called **White Pagoda** for its colour the way **Konark Temple is called 'Black Pagoda'** due to its dark colour.
- The temple is a massive structure made of sandstone and granite. It is divided into two parts: the Jagamohan, or audience hall, and the Garbhagriha, or sanctum sanctorum.

The temple is famous for its **Rath Yatra**, a chariot festival that is held every year in July or August.

18. (b)

Thiruvalluvar:

- Social Influence:
 - o In the early 16th century, a temple dedicated to Thiruvalluvar was built within the Ekambareswarar temple complex in Mylapore, Chennai. Locals believe that this was where he was born, underneath a tree within the temple complex.

Works

- He was a great poet, and philosopher, and regarded as a cultural icon by Tamils.
- Thiruvalluvar's primary work Thirukkural contains 1330 couplets (kurals) that are divided into 133 sections of 10 couplets each.

The text is divided into three parts with teachings on *Dharma, Artha, and Kama (virtue, wealth and love)*.

19. (b)

Statement 1 is not correct and statement 2 is correct.

Ganga Sagar Mela

• It is a fair and festival in Hinduism, celebrated on Makar Sankranti every year.

- The festival is held at **Kapilmuni's ashram** located at **Sagar Islands** in the South 24 Parganas district, West Bengal, India.
 - o The confluence of the Ganges and the Bay of Bengal is called the Gangasagar.
- History: The Gangasagar is mentioned in the Mahabharata's Vana Parva pilgrimage. It is also mentioned in an inscription of Pala dynasty, where King Devapala is performing rituals at the confluence of the Gangasagar.

Ganga Sagar is the second largest congregation of pilgrims, after the Kumbh Mela at Haridwar.

20. (b)

In News: Recently, Prime Minister Narendra Modi visited the Kalaram temple.

- The Kalaram temple is situated within the Panchvati area of Nashik City (Maharashtra).
- Panchavati translates to five banyan trees where, according to Ramayana, Lord Ram, Sita and Lakshman lived during exile.
- Built in 1792, the temple was funded by Sardar Rangarao Odhekar Peshwa.

The temple derives its name from a black statue of the Lord — Kala Ram translates literally to "Black Ram".

21. (b)

Makaravilakku is an annual festival held on Makara Sankranti in Kerala at the shrine of Sabarimala. The festival includes the Thiruvabharanam (sacred ornaments of Lord Ayyappan) procession and a congregation at the hill shrine of Sabarimala.

• Sabarimala is a temple complex located at Sabarimala hill inside the Periyar Tiger Reserve in the Perinad Village, Pathanamthitta District, Kerala, India.

The temple is dedicated to the deity Ayyappan also known as Dharma Shasta, the son of Shiva and Mohini, the feminine form of Vishnu.

22. (c)

Bangla

Classical Languages

The Government of India has **officially recognised six languages** as having classical status - Tamil (2004), Sanskrit (2005), Telugu, Kannada (2008), Malayalam (2013), and Odia (2014).

23. (b)

Option b is correct.

- The National Youth Day is celebrated on January 12, the birth anniversary of Swami Vivekananda.
 - Origin: Every year since 1985, the Government of India observes January 12 as the National Youth Day to keep Vivekananda's teachings alive and motivate young people.
- He established Ramakrishna Mission (RKM) in 1897.

He played an important role in introducing the philosophies of Yoga and Vedanta to the West. Netaji Subhas Chandra Bose had called him the "Maker of Modern India".

24. (c)

All the pairs are correctly matched.

Kapdaganda shawl-Odisha

- The shawl is woven and embroidered by the women of the **Dongria Kondh tribe**.
- It is embroidered on an off-white coarse cloth with **red**, **yellow and green** coloured threads, with each color holding significance.
- The motifs in the shawls are mostly **lines and triangles**, believed to be a reflection of the importance of mountains for the community.

Pashmina Shawl-Kashmir

- They are a fine variant of shawls spun from cashmere wools.
- Cashmere wool itself is obtained from the Changthangi goat

Chakhesang Shawls - Nagaland

• The Chakhesang shawl is a traditional shawl worn by the Chakhesang Naga tribe, who are one of the major Naga tribes in Nagaland.

The shawl is made of wool, and the natural dyes used to color it are derived from plants and other natural materials.

25. (a)

Kateel Yakshagana Mela: It is a famous Yakshagana troupe (*Kateel Sri Durgaparameshwari Yakshagaana Dashavatara Mandali*), which was founded in the middle of the 19th Century.

- o It is popularly known as **Kateel Mela** is an important **'Harake Seva' troupe**.
- Yakshagana activity is centuries old at Kateel, a well known temple village, pilgrim centre near Mangalore in Karnataka.
- The **High Court of Karnataka** allowed the mela to perform from dusk to dawn adhering to the **Noise Pollution (Regulation and Control) Rules, 2000**.
 - o It is noted that the loudspeakers are an integral part of Yakshagana performances.

Yakshagana troupe performs on request by devotees who have taken a vow (Harake) to arrange a show of Yakshagana for fulfilment of a desire or as a service.

26. (c)

All the pairs are correctly matched.

Lanjia Saura Painting

- The painting is also known as **Idital** and belongs to the **Lanjia Saura community** of Odisha.
- The paintings feature subjects like tribal humans, trees, animals, birds, the Sun and the Moon. These are White paintings over a crimson-maroon background.

Madhubani paintings

• These brightly colored Madhubani paintings are characterized by their geometrical patterns and are widely practiced in the Madhubani district in **Bihar**.

Warli Paintings

Warli painting is of tribal art mostly created by the tribal people from the North Sahyadri Range in Maharashtra, India.

27. (a)

Statement 1 is correct and Statement 2 is not correct.

What is Geographical Indication (GI)?

- A geographical indication (GI) is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- In order to function as a GI, a sign must identify a product as originating in a given place.
- Geographical indications are typically used for agricultural products, foodstuffs, wine and spirit drinks, handicrafts, and industrial products.

GI Tags and India

- The Geographical Indications of Goods (Registration and Protection) Act,1999 seeks to provide for the registration and better protection of geographical indications relating to goods in India.
- The Act is administered by the Controller General of Patents, Designs and TradeMarks- who is the Registrar of Geographical Indications.

The registration of a geographical indication is valid for a period of 10 years.

28. (d)

Statement 1 is not correct: Pravasi Bharatiya Divas, also known as Non-Resident Indian (NRI) Day, is celebrated on January 9. The day also commemorates the return of Mahatma Gandhi from South Africa to India in 1915.

Statement 2 is not correct: It is observed to mark the contribution and achievements of the overseas Indian community (not only NRIs) to the development of India.

29. (c)

Both the statements are correct: Nritya Kalanidhi Award is presented in the field of dance every year by the Madras Music Academy.

About Madras Music Academy

- It emerged as an offshoot of the All India Congress Session held in Madras in **December 1927.**
- It was conceived to be the institution that would set the **standard for Carnatic music.**
- One of the most notable events organized by the Music Academy is its **annual music and dance festival**.

It also confers the various awards such as the Sangita Kalanidhi, Sangita Kala Acharya, TTK, and Musicologist awards for the year.

30. (a)

Pairs 1 and 3 are not correctly matched.

Prominent Indian traditional toys:

- West Bengal: Galar Putul and Babu Putul
- Gujarat: Thigda dhingla
- Punjab: Chankana, Ghuggu and Handwai
- Maharashtra: Bhatukali miniature kitchen sets
- Karnataka: Channapatna toys
- Tamil Nadu: Choppu saman

Andhra Pradesh: Etikoppaka bommalu

31. (d)

Statement 1 is not correct:

- Kadamba inscription: It throws light on the Kadamba period in Goa and opens with an auspicious word 'Be it well' (Swasthi Shri).
- It was found lying in between the temples of Mahadev and Sateri-Betal at Cacoda in Goa.

Statement 2 is not correct:

- Its epigraph is **engraved in Kannada and Nagari** characters.
- The development of Kannada as a language of inscriptions goes to the Kadambas, the Gangas and the Badami Chalukyas.
- Inscriptions in **Sanskrit and Kannada** are the main sources of Kadamba history.

The **main content was in Sanskrit**, and the boundary specifications were in Kannada in Halmidi stone inscription and the Tagare copper plates.

32. (b)

Kadambas Dynasty:

- The Kadambas were an ancient Karnataka royal dynasty that controlled northern Karnataka and the Konkan region, established by Mayurasharma in about 345 AD.
- They lived alongside the Western Ganga Dynasty and created one of the first local kingdoms to rule the region autonomously.

Economy of Kadambas Dynasty::

- There have been nine Vishaya in the kingdom like *Mahagramas* (Taluk) and *Dashagramas* (Hobli) under a Vishaya .
 - o Mahagrama had a greater number of villages than Dashagramas.
- Tax on one-sixth of land output was required.

Perjunka (load tax), **Vaddaravula** (royal family social security tax), **Bilkoda** (sales tax), **Kirukula** (land tax), **Pannaya** (betel tax), and other professional charges on traders were among the levies imposed.

33. (c)

Both the statements are correct: The West Bengal government has declared Poila Boisakh, as the State Day and a song Banglar Mati Banglar Jal written by Rabindranath Tagore as the State Song.

• Poila Boisakh is the **1st day of the month of Boisakh** of Bengali calendar year commencing Bengali New Year.

It will be observed as State Day and it will be named 'Bangla Divas'.

34. (b)

In News: Recently, it is highlighted that The Northeast was 'invented' via a series of ad hoc decisions aimed at governing the erstwhile frontier region.

- Northeast comprises eight States viz. Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.
- The extant identity of Northeast India as a region has evolved over the years following the **Treaty of Yandabo in 1826 between the British and the Burmese.**
- In 1874, Assam became a separate province under the control of a commission.

In 1919 Assam was brought under the rule of the Governor according to the Government of India Act 1919.

ECONOMY

1. With reference to the stamp duty, consider the following statements:

- 1. It is a government tax, which is levied to register documents, like an agreement between two or more parties.
- 2. The amount specified is fixed based on the document's nature.
- 3. Stamp duties are not accepted as valid evidence in a court of law.

How many of the statements given above are correct?

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

2. Which of the following institutions in India qualify as Market Infrastructure Institutions (MIIs)?

- 1. Metropolitan Stock Exchange of India
- 2. Central Depository Services Ltd
- 3. Multi Commodity Exchange Clearing Corporation

Select the correct answer using the code given below:

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

3. With reference to the Gross Domestic Product (GDP), which of the following statements is/are correct?

- 1. It is the market value of all the finished goods and services produced within a country's borders in a specific time period.
- 2. Currently India is the 5th largest economy in the World.

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 *Purple Revolution in India*, consider the following statements:

- 1. It is a part of the National Mission for Sustainable Agriculture.
- 2. It covers coarse cereals and pulses partially.

Which 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. Consider the following statements:

- 1. A unicorn is a privately held startup company with a value of over \$10 billion.
- 2. Bengaluru is India's unicorn capital with the largest number of unicorn headquarters.

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

- (d) Neither 1 nor 2
- **6.** Which of the following best describes the Build-Operate-Transfer (BOT) model of infrastructure development?
 - (a) The government directly finances and constructs the infrastructure project.
 - (b) The private sector operates and maintains existing infrastructure assets for a fee.
 - (c) The private sector designs, builds, operates, and maintains an infrastructure asset for a specified concession period, after which it's transferred to the government.
 - (d) The government and private sector jointly share costs and revenues of an infrastructure project throughout its lifecycle.
- 7. With reference to the Punganur cows, which of the following statements is/are correct?
 - 1. It is an indigenous breed of cow native to the state of Gujarat.
 - 2. They are the tallest humped cattle in the world.

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. Punganur cows, recently seen in news, belong to which of the following regions of India?
 - (a) Gujarat
 - (b) Maharashtra
 - (c) Andhra Pradesh
 - (d) Odisha
- **9.** With reference to the Foreign portfolio investment (FPI), which of the following statements is/are correct?
 - 1. It does not provide the investor with direct ownership of a company's assets.
 - 2. FPI holdings include exchange traded funds only.

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.** Consider the following statements:
 - 1. India is the largest producer of the pulses in the world.
 - 2. Gram is the most dominant pulse having a major share in the production of pulses 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. With reference to the Indian Tea Industry, which of the following statements is/are correct?
 - 1. India is the second largest tea producer in the World.
 - 2. Assam grows about 90% of the total tea production 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

12. Which among the following comes under the Direct Taxation in India?

- 1. Wealth Tax
- 2. Property Tax
- 3. Custom Duty
- 4. Excise Duty

Select the correct answer using the code given below:

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

13. Which of the following is *not* a characteristic of a group insolvency mechanism?

- (a) Designed to handle insolvency scenarios where multiple companies within a corporate group are financially distressed.
- (b) Focus on individual company recovery at a time rather than group-wide restructuring.
- (c) Application of cross-border insolvency rules for companies operating in different jurisdictions.
- (d) Appointment of specialized administrators with expertise in group structures.

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

- 1. It requires deep and fertile well-drained soil, rich in humus and organic matter.
- 2. The average annual temperature for tea plants to grow is in the range of 15-23°C.

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 is correct regarding the Hedge fund?

- (a) It is a medium- to long-term debt instrument used by large companies.
- (b) It is a dedicated fund dealing with any kind of emergency like COVID-19.
- (c) It is a repository for all revenue received by the Government of India.
- (d) It is an investment in securities with the goal of getting positive returns.

16. With reference to the *Securities and Exchange Board of India (SEBI)*, consider the following statements:

- 1. It was constituted as a non-statutory body through a resolution of the Government of India.
- 2. The Department of Economic Affairs under the Ministry of Finance looks for the administrative matters of SEBI.

Which 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 *First Advance Estimates (FAE)*, consider the following statements:

- 1. These are the GDP data released before the Union Budget is presented.
- 2. These are known as 'Actuals'.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **18.** Which of the following best defines Gross Value Added (GVA)?

- (a) The total market value of all final goods and services produced within a country in a specific time period.
- (b) The total value of goods and services produced by a sector, industry, or entity, minus the cost of inputs.
- (c) The net income earned by a country from abroad.
- (d) The sum of all income generated by an economy, including wages, profits, and taxes.

19. Consider the following pairs:

List I List II

1. Nominal GDP Maximum sustainable output an economy

2. Potential GDP GDP adjusted for inflation

3. Real GDP GDP measured in current prices

How many pairs given above are correctly matched?

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

20. With reference to palm oil, which of the following statements is/are correct?

- 1. The oil palm tree is native to West and Central Africa.
- 2. India is the largest exporter of palm oil in Asia.

Select the correct answer using the code given below:

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

21. In trade agreements, the 'negative listing' refers to which of the following?

- (a) The list containing prohibited goods and services.
- (b) List of goods and services with highest tax and tariffs.
- (c) The list of items which have negative externalities when traded.
- (d) The list of sectors in which countries do not agree to liberalize trade.

22. The term 'Articles of Agreement' sometimes appeared in the news, is in context of:

- (a) Agreement on Agriculture
- (b) Climate Change
- (c) Economic Development
- (d) Water Pollution

23. Which of the following statements is correct regarding Reverse Flipping?

- (a) It describes the trend of overseas start-ups shifting their domicile.
- (b) It is used for efforts to reduce the share of public spending in GDP.
- (c) It is a gradual reduction in the value of an asset over time.
- (d) It refers to direct swap of goods and services without the use of money.

24. Which of the following is not a core function of Credit Information Companies (CICs)?

- (a) Collecting and storing credit data of individuals and businesses.
- (b) Analyzing credit data and generating credit reports.
- (c) Giving credit reports to lenders and other authorized parties.
- (d) Granting loans to consumers.

25. With reference to the *Coal Controller Organisation* in India, consider the following statements:

1. It is a nodal office for collection, compilation and dissemination of coal statistics in the government of India.

2. It acts as the appellate authority in case of dispute between consumers and owner arising out of declaration of grade of coal;

Which 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. Consider the following statements:

Statement-I: The coal production in India is consistently declining in the past two years.

Statement-II: India aims to achieve the "net zero target" by 2070.

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

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

27. With reference to Coal production in India, consider the following statements:

- 1. India is the largest producer and consumer of coal globally.
- 2. The top three states with highest coal reserves in India are Odisha, Jharkhand, Chhattisgarh, which accounts for approximately 69% of the total coal reserves in the country.
- 3. Coal deposits in India generally contain low levels of ash (3-5%).

Which of the statements given above are not correct?

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

28. With reference to the tax-to-GDP ratio, consider the following statements:

- 1. A low tax-to-GDP ratio indicates more spending on infrastructure creation, hence a better financial position for the country
- 2. Developed nations typically have lower tax-to-GDP ratios than developing nations.

Which of the given above statements is/are correct?

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

29. With reference to Provision Coverage Ratio (PCR), which of the following statement(s) is/are correct?

- 1. It indicates the extent of funds a bank has kept aside to meet its CRAR requirements.
- 2. High PCR indicates lower is the unexposed part of the bad debts.

Choose the correct option using the codes given below

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

30. Which among the following are the corrective measures taken by the Government of India, during the Economic Crisis in 1991?

1. Appreciation of Indian Rupee.

- 2. Reducing Government Expenditure.
- 3. Privatizing state-owned enterprises.

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
- **31.** The varieties recently seen in the news -CIM Unnati, Hariyali, CIM Samarth, Ranisahiba and CIM-Bharat, are related to which of the following plants?
 - (a) Cereals
 - (b) Pulses
 - (c) Aromatic plants
 - (d) Oilseed plants
- **32.** With reference to the 'Sovereign Gold Bonds (SGBs)', consider the following statements:
 - 1. These are government securities denominated in grams of gold.
 - 2. These are issued by the Government of India on behalf of the Reserve Bank of India (RBI).

Which of the statements given above is/are correct?

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

EXPLANATIONS

1. (b)

Statement 1 and 2 are correct: A stamp duty is essentially **a government tax**, which is **levied to register documents**, like an agreement or transaction paper between two or more parties, with the registrar.

• **Duty to be Paid:** Usually, the amount specified is fixed **based on the document's nature** or is charged at a certain percentage of the agreement value stated in the document.

Statement 3 is not correct: Legality: Stamp duties are accepted as valid evidence in a court of law.

• They are levied by the Centre but appropriated by the concerned states within their territories under Article 268 of the Constitution.

2. (d)

Market Infrastructure Institutions

- What are the MIIs?
 - Stock exchanges, depositories and clearing houses are all Market Infrastructure Institutions and constitute a key part of the nation's vital economic infrastructure.
- Specific institutions in India that qualify as MIIs:
 - o Among stock exchanges:
 - The SEBI lists seven, including the BSE, the NSE, the Multi Commodity Exchange of India and the Metropolitan Stock Exchange of India. **Hence option 1 is correct.**
 - o There are two depositories:
 - Charged with the safekeeping of securities and enabling their trading and transfer —
 that are tagged MIIs:

- The Central Depository Services Ltd. and the National Securities Depository Ltd. Hence option 2 is correct.
 - o Clearing houses:
 - The regulator also lists seven clearing houses including the Multi Commodity Exchange Clearing Corporation. **Hence option 3 is correct.**
- Clearing houses, for their part, help validate and finalise securities trades and ensure that both buyers and sellers honour their obligations.

3. (c)

Both the statements are correct.

Context

• India is expected to become the third-largest economy in the world with a GDP of \$5 trillion in the next three years.

India's growth trajectory

- India was the 10th largest economy in the world, with a GDP of \$1.9 trillion at current market prices, ten years ago.
- Currently India is the **5th largest** economy with a **GDP of \$3.7 trillion**.
- India is expected to touch \$7 trillion by 2030 on the back of continued reforms.
- The government has set a goal of becoming a 'developed country' by 2047.

What Is Gross Domestic Product (GDP)?

- Gross domestic product (GDP) is the total monetary or market value of all
 the finished goods and services produced within a country's borders in a
 specific time period.
- GDP provides an economic snapshot of a country, used to estimate the size of an economy and its growth rate.

4. (d)

In News: Recently, the Purple Revolution was highlighted through Lavender Cultivation in Jammu & Kashmir in the Tableau of Republic Day (2024).

Statement 1 is not correct:

- The Purple Revolution (or Lavender Revolution): It refers to the significant growth of lavender cultivation in Jammu & Kashmir, India.
- This initiative is part of the **Aroma Mission** launched by the **Union Ministry of Science & Technology.**
 - o It aims to promote the indigenous aromatic crop-based agro economy.

Statement 2 is not correct:

- It aims to increase the income of the farmers and promote lavender cultivation on a commercial scale.
- It offers attractive startup avenues and contributes to overall growth in the region.

5. (b)

Statement 1 is not correct: Unicorn is a term used in the venture capital industry to describe a privately held startup company with a value of over \$1 billion.

- The term was coined to represent the **rarity and uniqueness** of such companies, much like the mythical creature.
- A decacorn is a company that has attained a valuation of more than \$ 10 Bn.

• Statement 2 is correct: Bengaluru is India's unicorn capital with the largest number of unicorn headquarters followed by Delhi (NCR) and Mumbai.

6. (c)

About the Build-Operate-Transfer (BOT):

- **Private entity** designs, builds, operates, and maintains the infrastructure asset for a specified concession period (usually 20-30 years).
- Revenue generated from the asset (tolls, user fees, etc.) belongs to the private entity during the concession period.
- After the concession period, the asset is transferred back to the government.

Advantages:

- Distributes risks and responsibilities between the government and private sector.
- Leverages private sector efficiency and expertise.
- Reduces upfront government financial burden.

Challenges:

- Ensuring affordability of services to the public.
- Potential for disputes over contract terms and performance.
- Managing risks like traffic or revenue shortfalls.

7. (d)

Both the Statements are not correct.

About Punganur cows

- Native species: The Punganur is an indigenous breed native to the Punganoor, taluka of Chittoor district in the Rayalaseema region of southern Andhra Pradesh.
- **Body:** They are a unique dwarf breed, considered the shortest humped cattle in the world.
- Color: Punganur cows can be white or gray, or of shades of light or dark brown.
- Horns: They have small, crescent-shaped horns of 10-15 cm length, which often curve backward and
 forward in male cattle and lateral and forward in female cattle of the breed. Females have slightly
 longer horns than the stumpier ones in males.

8. (c)

Andhra Pradesh

About Punganur cows

- Native species: The Punganur is an indigenous breed native to the Punganoor, taluka of Chittoor district in the Rayalaseema region of southern Andhra Pradesh.
- **Body:** They are a unique dwarf breed, considered the shortest humped cattle in the world.
- Color: Punganur cows can be white or gray, or of shades of light or dark brown.
- Horns: They have small, crescent-shaped horns of 10-15 cm length, which often curve backward and
 forward in male cattle and lateral and forward in female cattle of the breed. Females have slightly
 longer horns than the stumpier ones in males.

9. (a)

Statement 1 is correct and statement 2 is not correct.

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, ADRs, GDRs, bonds, mutual funds, and exchange traded funds.

• 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.

10. (c)

Both the statements are correct: India is the **largest producer** (25% of global production), **consumer** (27% of world consumption) and **importer** (14%) of pulses in the world.

- Gram is the most dominant pulse having a share of around 40 percent in the total production followed by Tur/Arhar at 15 to 20 percent and Urad/Black Matpe and Moong at around 8-10 percent each.
- The main regions with high productivity are Punjab, Haryana, Western Uttar Pradesh, West Bengal delta region, coastal Andhra Pradesh, Tamil Nadu, Kerala, coastal and eastern Karnataka and some parts of Maharashtra.

11. (a)

Statement 1 is correct and statement 2 is not correct.

Indian Tea Industry

- India is the 2nd largest tea producer and largest black tea producer.
- Indian teas are exported to various destinations like Iran, Iraq, Syria, Saudi Arabia, Russia etc. and is the **4th largest** tea exporter in the World.
- The Indian tea Industry is employing **1.16 million workers** directly and an equal number of people are associated with it indirectly.
- Assam grows about 55% of the teas produced in India. India's tea production has increased by 39% in 2022 from 2008.

12. (a)

In order to garner income for the government to finance social projects, tax is collected from individuals and corporations via direct tax and indirect tax.

- **Direct tax** is the tax that is paid directly to the government by the person or company on whom it is levied.
 - o Income tax, wealth tax, corporation tax, and property tax are some examples of direct tax.
- **Indirect taxes** are those that are collected by intermediaries from individuals and corporations who bear the burden of the tax and passed on to the government.
 - o Goods and Services Tax (GST) is an example of indirect tax.
 - Custom Duty and Excise duty comes under Indirect Tax.

13. (b)

Group insolvency mechanism:

- Group insolvency mechanism is a **legal framework designed to handle insolvency scenarios** where multiple companies within a corporate group are financially distressed.
 - o It focuses on group-wide restructuring rather than individual company recovery.
- This framework addresses the complex interdependencies between these companies, preventing cascading failures and ensuring a more comprehensive and efficient resolution process.

Key Features:

- Consolidation of proceedings: Insolvency proceedings for different group companies can be consolidated or coordinated, ensuring efficiency and preventing contradictory outcomes.
- Cross-border aspects: The framework may address situations where group companies operate across different jurisdictions, facilitating international cooperation and asset tracing.
- **Special administrators:** Dedicated professionals with expertise in group structures may be appointed to oversee the insolvency process.

14. (c)

Both the Statements are correct.

Conditions Required for Tea Production

- The tea plant grows well in **tropical and subtropical** climates. Tea bushes require a **warm and moist frost-free climate** all through the year.
- Soil: It requires deep and fertile well-drained soil, rich in humus and organic matter.
- Temperature: The average annual temperature for tea plants to grow well is in the range of 15-23°C.
- **Precipitation:** The rainfall needed is between **150-200 cm.** Frequent showers evenly distributed over the year ensure continuous growth of tender leaves.
- Major tea producing states are Assam, hills of Darjeeling and Jalpaiguri districts in West Bengal, Tamil Nadu and Kerala.
 - O Apart from these, Himachal Pradesh, Uttarakhand, Meghalaya, Andhra Pradesh and Tripura are also tea-producing states in the country.

15. (d)

In News: Global hedge funds sold more than bought equities for a third consecutive week.

- Hedge funds pool money from investors and invest in securities or other types of investments with the goal of getting positive returns.
- They are not regulated as heavily as mutual funds and generally have more leeway than mutual funds to pursue investments and strategies that may increase the risk of investment losses.

16. (c)

Statement 1 is correct:

- Securities and Exchange Board of India (SEBI): It was constituted as a non-statutory body through a resolution of the Government of India, and established as a statutory body in the year 1992 and the provisions of the Securities and Exchange Board of India Act, 1992.
- **Functions**: To protect the interests of investors in securities and to promote the development of, and to regulate the securities market and for matters connected therewith or incidental thereto.

Statement 2 is correct:

- Financial Markets Division, under the Department of Economic Affairs (Ministry of Finance) is primarily responsible for policy issues related to the development of the securities markets and matters incidental thereto.
 - The division looks after the administrative matters of the Securities and Exchange Board of India (SEBI) and Securities Appellate Tribunal (SAT).

17. (a)

Statement 1 is correct:

- First Advance Estimates (FAE): These are the GDP data released before the Union Budget is presented that provide the first complete picture of economic growth.
- These are presented at the end of the first week of January every year, and are only the first estimates of growth for that financial year, introduced in 2016-17.

Statement 2 is not correct:

- The Ministry of Statistics and Programme Implementation (MoSPI) will release the Second Advance Estimates by the end of February and the Provisional Estimates by the end of May.
- MoSPI will release the **First, Second, and Third** *Revised* **Estimates** of this year's GDP before settling on the final number, which is called the 'Actuals'.
 - The GDP estimates continue to be revised as more and better data become available and in the coming three years.

18. (b)

- Gross Value Added (GVA) is a measure of the economic value generated by a sector, industry, or entity within a specific period.
- GVA represents the difference between the value of goods and services produced by an economic unit and the cost of inputs and raw materials used in the production process.

19. (a)

Nominal GDP vs Real GDP vs Potential GDP:

1. Nominal GDP:

- The total market value of all final goods and services produced within a country's borders in a given year, measured in current prices.
 - Example: If India produces \$2 trillion worth of goods and services in 2024, its nominal GDP is \$2 trillion.

2. Real GDP:

- Nominal GDP adjusted for inflation to reflect the actual volume of goods and services produced.
 - **Example**: If inflation in 2024 is 5%, then India's real GDP would be approximately \$1.9 trillion and not \$2 trillion.

3. Potential GDP:

- The maximum sustainable output an economy can achieve with its current capital, labor, and technology, assuming full employment and efficiency.
 - o **Example**: If India's potential GDP is \$2.5 trillion in 2024, then it has a "GDP gap" of \$0.6 trillion.

20. (a)

Statement 1 is correct and statement 2 is incorrect.

Palm Oil

- It's an edible vegetable oil that comes from the fruit of oil palm trees, having the scientific name Elaeis guineensis.
- The oil palm tree is **native to West and Central Africa**. It also grows extensively in **Malaysia and Indonesia**.
- India is the largest importer of palm oil in Asia. India buys palm oil mainly from Indonesia, Malaysia and Thailand.

21. (d)

In trade agreements, the negative listing approach is a method for defining market access commitments.

- Instead of listing sectors and sub-sectors where both countries agree to liberalize trade, only those sectors/sub-sectors with limitations or exclusions are explicitly listed under the negative list.
 - O All other sectors are assumed to be open to trade with the agreed-upon terms.

22. (c)

Article IV of the IMF's Articles of Agreement:

- o The IMF holds bilateral discussions with members, usually every year.
- After collecting economic and financial information, the IMF discusses economic developments and policies with the officials of the country and it presents a report based on these findings.

23. (a)

In News: Startups have been planning for Reverse Flipping

• Reverse flipping' is used in business circles.

- It is a term used to describe the **trend of overseas start-ups shifting their domicile to India** and **listing on Indian stock exchanges**.
 - O Here, start-ups that once relocated their holding companies outside India are now considering a strategic move back to India,
- The **Economic Survey of 2022-23** acknowledged the concept of reverse flipping and has listed possible measures such as simplifying the processes for tax holidays, taxation of ESOPs, capital flows and reducing layers of tax to accelerate the reverse flipping process.

24. (d)

About the Credit Information Companies (CICs):

- CICs are companies that collect public data, credit transactions and payment histories of individuals and companies regarding loans, credit cards, among others.
- Based on the collected data, CICs form a credit report and generate a score.
 - o Banks, non-banking financial institutions refer to the CIC's report and score to decide borrowers' creditworthiness before granting a loan or issuing a credit card.
- The credit score ranges between 350 to 850 and anything above 750 is considered as a good score.
- Licensed by: The Reserve Bank of India
- Governed by: The Credit Information Companies Regulation Act, 2005 and various other rules and regulations issued by the Reserve Bank of India.
- CICs are not allowed to act as lenders themselves. Their role is solely to gather and provide credit information to facilitate informed lending decisions by financial institutions.

25. (c)

Statement 1 is correct:

- Coal Controller Organisation (CCO): It is a subordinate Office of the Ministry of Coal, and Nodal Office for collection, compilation and dissemination of Coal Statistics in Government of India.
- It has **offices in Kolkata and New Delhi**, and **field offices** in Dhanbad, Ranchi, Bilaspur, Nagpur, Sambalpur and Kothagudem.
 - The Kolkata office also looks after the coal mines under the NEC command area and renders assistance to Coal Controllers on various issues.

Statement 2 is correct:

- Functions of CCO:
 - O To issue directives for the purpose of declaration and maintenance of grades of coal of a seam mined in a colliery;
 - To act as the appellate authority in case of dispute between consumers and owner arising out of declaration of grade of coal;
 - o Approval of Mining Plan and Mine Closure Plan, etc.

26. (d)

About coal production in India:

- The coal production in India has shot up to over **664 million tonnes** during the financial year **2023- 24.**
- It is a robust **12.29 percent increase over the corresponding figure of over 591 million tonnes** for the same period of the previous year.
 - The government aims to further increase production to reach 1 billion million tonnes by 2030.
- At the 26th session of the Conference of the Parties (COP26) of the UNFCCC in November 2021, India announced that India will achieve the target of net zero emissions by 2070. But, it still relies heavily on coal to meet its energy demand.

O Coal production in India is expected to continue increasing in the near future. However, the long-term outlook for coal remains uncertain, with growing emphasis on clean energy transition and climate change mitigation.

27. (c)

About coal production in India:

- India has rich deposits of coal in the world. **Total estimated reserves of coal** as on 01-04-2022 were **361.41 billion tonnes.**
 - The top three states with highest coal reserves in India are Odisha, Jharkhand, Chhattisgarh, which accounts for approximately 69% of the total coal reserves in the country.
- India is the **second largest producer and consumer of coal** globally after China, surpassing the USA in 2022.
- Coal deposits in India generally contain high levels of ash (35-50%).

28. (d)

- Statement 1 is not correct: Tax-to-GDP ratio represents the size of a country's tax kitty relative to its GDP. It is a representation of the size of the government's tax revenue expressed as a percentage of the GDP. The higher the tax to GDP ratio the better the financial position the country will be in. The ratio represents that the government is able to finance its expenditure. A higher tax to GDP ratio means that the government is able to cast its fiscal net wide. It reduces a government's dependence on borrowings.
- Statement 2 is not correct: Developed nations typically have higher tax-to-GDP ratios than developing nations.

29. (b)

- Option 1 is not correct: Provisioning Coverage Ratio (PCR) is essentially the ratio of provisioning to gross non-performing assets and indicates the extent of funds a bank has kept aside to cover loan losses. Thus, the provisioning coverage ratio is the percentage of bad assets that the bank has to provide for (keep the money) from their own funds.
- Option 2 is correct: Public sector banks' provision coverage ratio -- which measures the provisioning for bad loans -- has gone up from less than 50 per cent in 2015 to 66.85 per cent as of September 2018, reflecting improvement in their financial health. Higher the PCR, lower is the unexposed part of the bad debts.

30. (b)

Immediate Step Taken by Government

- Pledging gold holdings to shore up forex reserves: With the foreign exchange reserves going below the critical \$1-billion mark, the Government decided to sell confiscated gold.
 - o Nearly 47 tonnes of gold was shipped off to destinations abroad in four tranches.
 - o This helped raise about \$400 million for the government.
 - o The entire operation, cloaked in **secrecy**, was conducted by **State Bank of India**.
- Devaluation of the Indian Rupee: To address the balance of payments crisis and improve export competitiveness, the government devalued the Indian rupee by about 20% against major foreign currencies. Hence, Statement 1 is not correct.

Reforms by Government of India

- **Privatization:** The government started privatizing state-owned enterprises to improve efficiency and competitiveness.
 - O This was a significant departure from the previous policy of state control in various sectors.

• **Fiscal Reforms:** Efforts were made to address the fiscal deficit by reducing government expenditure and increasing revenue generation.

31. (c)

About aromatic plants:

- Successful introduction of **aromatic plants** has been seen in **Nabarangpur** and **Koraput** districts of Odisha with the help of the **Central Institute of Medicinal and Aromatic Plants (CIMAP) in Lucknow.**
- The districts has recently introduced different aromatic plants such as,
 - o menthol mint (the CIM Unnati variety),
 - o rosemary (Hariyali variety),
 - o patchouli (CIM Samarth),
 - o damask roses (Ranisahiba),
 - o chamomile, and
 - o geraniums (CIM-Bharat).
- Aromatic plants are those that contain **aromatic compounds**, which are basically **essential oils**.
 - These essential oils are odorous, volatile at room temperature, hydrophobic and highly concentrated compounds.
 - o They can be obtained from flowers, buds, seeds, leaves, twigs, bark, wood, fruits and roots.

32. (a)

Statement 1 is correct:

- Sovereign Gold Bonds (SGBs): These are government securities denominated in grams of gold, and are substitutes for holding physical gold.
- It was launched in November 2015.
- **Objective:** To reduce the demand for physical gold and shift a part of the domestic savings (to purchase of gold) into financial savings.

Statement 2 is not correct:

- **Issuance:** The Gold Bonds are issued **as Government of India Stock** under the Government Securities (GS) Act, 2006.
- These are issued by the Reserve Bank of India (RBI) on behalf of the Government of India.

INDIAN POLITY & CONSTITUTION

- **1.** With reference to the Inter-State Council, consider the following statements:
 - 1. It is a permanent constitutional body established under Article 263 of the Indian constitution.
 - 2. It is established by the President of India.
 - 3. The Union Home Minister is the chairman of the council.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 only
- (d) 2 and 3 only
- 2. The D.K. Basu Case of the Supreme Court of India, sometimes appeared in the news, is related to:
 - (a) Labour Reforms
 - (b) Custodial Violence
 - (c) Indirect Taxes Matters
 - (d) Land Acquisition & Requisition Matters
- **3.** Which of the following ministries monitors the implementation of the Foreign Contribution Regulation Act, 2010 (FCRA)?
 - (a) Ministry of Finance
 - (b) Ministry of Home Affairs
 - (c) Ministry of External Affairs
 - (d) Ministry of Corporate Affairs
- 4. Which of the following statements about the Eighth Schedule of the Indian Constitution is TRUE?
 - (a) It defines the fundamental rights of citizens.
 - (b) It includes the list of states and union territories of India.
 - (c) It identifies the 22 official languages recognized by the government.
 - (d) It specifies the powers and functions of the judiciary.
- **5.** Cabinet Committee on Economic Affairs (CCEA) recently seen in the news, it is chaired by:
 - (a) President
 - (b) Finance Minister
 - (c) Prime Minister
 - (d) Speaker of the Lok Sabha
- **6.** With reference to the Finance commission, consider the following statements:
 - 1. The Finance Minister constitutes the Finance Commission at an interval of five years or earlier.
 - 2. It determines the method and formula for distributing the tax proceeds between the Centre and states.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **7.** With reference to the recently formed *a Committee for Sub-categorisation within Scheduled Castes (SCs)*, consider the following statements:
 - 1. It is chaired by the National Commission for Scheduled Castes (NCSCs).
 - 2. It is mandated to look at the matters related to the reservation for employment and education.

Which 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 Uniform Civil Code (UCC), which of the following statements is/are correct?

- 1. It is part of the Directive Principles of State Policy of Indian Constitution.
- 2. In India, Uttarakhand and Goa have implemented the UCC.

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 Article 30 of the Indian Constitution, consider the following statements:

- 1. It states the right of minorities to establish and administer educational institutions.
- 2. Azeez Basha Vs Union of India Case 1968 deals with the provisions of Article 30.

Which 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 religious minorities in India, consider the following statements:

- 1. Class or group of people whose mother language is different from that of the majority groups are considered religious minorities.
- 2. Sikhs and Jains are among the religious minorities 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. With reference to the Tea Board of India, which of the following statements is/are correct?

- 1. It is a statutory body under the Ministry of Commerce and Industry.
- 2. Its Headquarter is located in Kolkata, West Bengal.

Select the correct answer using the code given below:

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

12. Consider the following statements:

- 1. The Directorate General of Civil Aviation is responsible for formulation of national policies for the development of the Civil Aviation sector.
- 2. The Bureau of Civil Aviation Security is responsible for managing and developing civil aviation infrastructure.

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

- (d) Neither 1 nor 2
- **13.** With reference to the *Bureau of Indian Standards (BIS)*, consider the following statements:
 - 1. It is a Statutory Body functioning under the aegis of Union Ministry of Consumer Affairs, Food and Public Distribution.
 - 2. Its headquarter is in Mumbai, Maharashtra.
 - 3. It has no regional offices in India.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **14.** Which of the following Languages were initially Included in the Eighth Schedule of the Indian Constitution?
 - 1. Maithili
 - 2. Nepali
 - 3. Gujarati
 - 4. Assamese

Select the correct answer using the code given below.

- (a) 1, 2 and 3 only
- (b) 2 and 4 only
- (c) 1 and 2 only
- (d) 3 and 4 only
- **15.** With reference to the *National Medical Commission (NMC)*, consider the following statements:
 - 1. It is a non-statutory regulatory body under the Ministry of Health and Family Welfare (MoH&FW).
 - 2. It ensures availability of adequate and high quality medical professionals in all parts of the country.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 16. Consider the following statements with reference to Press and Registration of Periodicals Act, 2023
 - 1. It provides for the registration of newspapers, periodicals including scientific and academic journals.
 - 2. It gives an online mechanism to apply for title verification and grant of certificate by the Press Registrar General.
 - 3. A person who has been convicted of an unlawful activity will be allowed to publish a periodical.

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

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1,2 and 3
- **17.** With reference to the Legal Services Committee, consider the following statements:
 - 1. It is constituted under the Legal Services Authorities Act, 1987.
 - 2. The National Legal Services Authority or NALSA shall constitute the committee.

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

- (d) Neither 1 nor 2
- **18.** With reference to the the 'Voter Verifiable Paper Audit Trail (VVPATs)', consider the following statements:
 - 1. It is an independent system attached with the Electronic Voting Machines (EVMs).
 - 2. It is intended as an independent verification system to allow voters to verify their vote.

Which 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.** 'State of the Judiciary: A Report on Infrastructure, Budgeting, Human Resources, and ICT', was recently published by which of the following institutions?
 - (a) Common Cause
 - (b) Pratham
 - (c) Association for Democratic Reforms(ADR)
 - (d) Centre For Research & Planning, Supreme Court Of India
- **20.** In which of the following cases, the National Judicial Appointments Commission (NJAC) Act, 2014 declared as unconstitutional and void?
 - (a) Puttaswamy Case
 - (b) Fourth Judges Case
 - (c) Third Judges Case
 - (d) Kihoto Hollohan Case
- 21. Consider the following statements with reference to Financial Intelligence Unit India (FIU-IND):
 - 1. It is a law enforcement agency responsible for processing information relating to suspect financial transactions.
 - 2. It directly reports to the Economic Intelligence Council (EIC) headed by the Prime Minister.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 22. Which of the following best describes the e-SCR portal?
 - (a) A platform for filing cases in the Supreme Court.
 - (b) A repository of legal articles and research papers.
 - (c) An online platform providing access to digital versions of the Supreme Court judgments.
 - (d) A forum for legal discussions and debates.
- **23.** With reference to the Special Courts for the National Investigation Agency (NIA), consider the following statements:
 - 1. An appeal shall lie from any judgement, sentence or order, to the Supreme Court of India.
 - 2. Every appeal shall be heard by a bench of Five Judges of the High Court.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 24. Consider the following statements with reference to the Finance Commission
 - 1. It is a Constitutionally mandated body under article 280 of the Constitution.

- 2. Only Retired IAS officers can be appointed as Chairman of the Commission.
- 3. The First Finance Commission was constituted under the chairmanship of Shri K.C. Neogy in 1952. How many statements given above are correct?
- (a) Only one
- (b) Only two
- (c) All three
- (d) None

EXPLANATIONS

1. (c)

Statement 1 is not correct: The Inter-State Council is a non-permanent constitutional body set up by a presidential order on the basis of provisions in Article 263 of the Constitution of India. The Council is formed to discuss or investigate policies, subjects of common interest, and disputes among states.

Statement 2 is correct: The Inter-State Council was set up in 1990 following the recommendations of the Sarkaria Commission. Article 263 empowers the President of India to set up an inter-state council to deal with federal issues.

Statement 3 is not correct: The council is chaired by the Prime Minister and includes six Union ministers and all chief ministers as members.

2. (b)

- D.K. Basu vs. State of West Bengal Case (1996): It is a landmark judgement of the Supreme Court of India in the realm of human rights jurisprudence, and drawing attention to deaths in police custody in India.
- The petitioner, D.K. Basu, Executive Chairman of Legal Aid Services, West Bengal, addressed a letter to the Supreme Court of India drawing attention to deaths in police custody.
 - The letter was treated as a Writ Petition within the 'Public Interest Litigation'.

The Judgement:

- It held that **custodial violence**, including torture and death in lock-ups, violates the **rule of law and human dignity**.
 - It broadened the horizons of the meaning of fundamental rights.
- It held that compensation can be awarded for the infringement of fundamental rights.
- The SC has laid down the 'Basic Requirements' for Arrest and Detention, that includes:
 - o Identification;
 - Memo of Arrest;
 - Information of Arrest;
 - o Informing the right to the Arrestee;
 - o Diary Entry;
 - o Inspection Memo;
 - Medical Examination;
 - o Copies of documents to Illaqa Magistrate;
 - o Right to Lawyer;
 - o Police Control Room.

3. (b)

Ministry of Home Affairs

What is Foreign Contribution Regulation Act, 2010

- **FCRA aims** to regulate the acceptance and utilization of foreign contributions to prohibit activities detrimental to the national interest.
- **Origin:** It was first enacted in 1976 but repealed and later replaced with new legislation in 2010. It was further amended in 2020.
- Provisions of the Act are as;
 - o Every person or NGO wishing to receive foreign donations to be registered under the Act,
 - o Registered groups can receive foreign contributions for social, educational, religious, economic and cultural programmes.
 - o To utilize the funds only for the purpose for which they have been received, and as stipulated in the Act.
 - They are also required to file annual returns, and they must not transfer the funds to another NGO.
 - O The Act prohibits receipt of foreign funds by candidates for elections, journalists or newspaper and media broadcast companies, judges and government servants, members of legislature and political parties or their office-bearers, and organizations of a political nature.
- **2020 Amendment:** Prohibiting the transfer of foreign contribution to any other person or organization.
 - o Reducing the limit of usage of foreign contribution for administrative expenses from 50% to 20%.
- **FCRA 2022 Rules:** In July 2022, the MHA introduced changes to FCRA rules. These changes included increasing the number of compoundable offences from 7 to 12.
 - The regulations also increased the threshold for contributions from overseas relatives, which can be made without the need for government notification, from Rs 1 lakh to Rs 10 lakh. Additionally, the timeframe for informing the government about the opening of bank accounts was extended.
- **Validity:** The registration is valid for five years, after which the NGO has to apply for a renewal.
- The **Union Ministry of Home Affairs (MHA)** monitors the implementation of the FCRA to ensure that such funds do not adversely affect the country's internal security.

4. (c)

Statement c is correct.

The Eighth Schedule of the Constitution of India:

- The Eighth Schedule lists the 22 official languages recognized by the Indian government for various purposes like communication with the government, use in official documents, and promotion within the country.
- Listed Languages: Assamese, Bengali, Bodo, Dogri, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Maithili, Nepali, Odia, Punjabi, Sanskrit, Santhali, Sindhi, Tamil, Telugu and Urdu.
- Significance: Including languages in the Eighth Schedule grants them certain privileges:
 - Representation on the Official Languages Commission: a body that advises the government on language development and policy.
 - O **Use in official communications and publications:** of the central government, although Hindi and English remain the primary languages for such purposes.
 - o **Promotion and development:** Through initiatives like translation projects and cultural programs.

 Literary Recognition: The National Sahitya Akademi automatically recognizes languages in the Eighth Schedule as literary languages, making them eligible for various awards and grants for literary development.

5. (c)

Cabinet Committee on Economic Affairs (CCEA) is chaired by the Prime Minister.

One of the standing committees of the cabinet. It comprises 11 ministers and 3 special invitees.

Major functions:

- Take major economic decisions like disinvestments, MSP, etc.
- CCEA handles the functions of the cabinet committee on prices, cabinet committee on UIDAI,
 Cabinet committee on WTO, after they were scrapped

6. (b)

Statement 1 is not correct: Under Article 280 of the Constitution, the President of India is required to constitute a Finance Commission at an interval of five years or earlier.

• Members: It has a chairman and four members appointed by the President.

Statement 2 is correct: It determines the method and formula for distributing the tax proceeds between the Centre and states, and among the states as per the constitutional arrangement and present requirements.

7. (d)

Statement 1 is not correct:

- Committees for Sub-categorisation within SCs: The Union government has formed a committee
 to ensure equitable distribution of benefits, schemes, and initiatives to Scheduled Castes (SCs)
 across the country.
- 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.**

Statement 2 is not correct:

- **Committee of Secretaries: Mandate:** To look at **strategies** like *special initiatives, focusing existing schemes towards them*, etc.
 - The Committee needs **not to deviate into policy matters** like reservation or break-up of SC quota for employment and education.
 - O There is no deadline given to present its findings. However, it has been asked to do so at the earliest.

8. (a)

Statement 1 is correct and statement 2 is not correct.

What is Uniform Civil Code (UCC)?

- A Uniform Civil Code refers to the provision of one law for the entire country, applicable to all religious communities, in their personal matters such as marriage, divorce, inheritance, adoption, etc.
- Currently, separate personal laws apply for the members of different major religions.

Constitutional Provisions

- Article 44 contained in part IV of the Constitution says that the state "shall endeavor to secure for the citizens a uniform civil code throughout the territory of India".
- Part IV of the Constitution outlines the **Directive Principles of State Policy**, which, while not enforceable or justiciable in a court of law, are fundamental to the country's governance.

UCC in India

- **UCC in Goa:** It follows the **Portuguese Civil Code of 1867,** which means that people of all religions in Goa are subject to the same laws on marriage, divorce, and succession.
 - The Goa Daman and Diu Administration Act of 1962, which was passed after Goa joined the union as a territory in 1961, gave Goa permission to apply the Civil Code.
 - O States like Gujarat, Madhya Pradesh and Assam have also expressed their willingness to follow the UCC, none have officially adopted it.

9. (c)

Both the statements are correct: Article 30 of the Indian Constitution states the right of minorities to establish and administer educational institutions.

• It says "All minorities, whether based on religion or language, shall have the right to establish and administer educational institutions of their choice."

Azeez Basha Vs Union of India Case 1968:

- It held that the expression established and administered in Article 30(1) was to be read conjunctively.
- Two requirements have to be fulfilled under Article 30(1), namely, that the institution was established by the community and its administration was vested in the community.

10. (b)

Statement 1 is not correct: The basic ground for a community to be nominated as a religious minority is the numerical strength of the community.

• Class or group of people whose mother language or mother tongue is different from that of the majority groups is known as the linguistic minorities.

Statement 2 is correct: Section 2, clause (c) of the National Commission of Minorities Act, declares six communities as minority communities. They are:

- Muslims
- Christians
- Buddhists
- Sikhs
- Jains and
- Zoroastrians (Parsis)

11. (c)

Both the Statements are correct.

Tea Board of India

- The Tea Board of India is functioning as a **statutory body** of the Central Government under the **Ministry of Commerce and Industry.**
- It was established by the enactment of the Tea Act in 1953, to promote the cultivation, processing, and domestic trade as well as export of tea from India.
- Headquarters: Kolkata, West Bengal.

12. (d)

Statement 1 is not correct: The Ministry of Civil Aviation is responsible for formulation of national policies for the development and regulation of the Civil Aviation sector.

- It is responsible for the administration of the Aircraft Act, 1934, Aircraft Rules, 1937 and various other legislations pertaining to the aviation sector.
- The Directorate General of Civil Aviation is the regulatory body primarily dealing with safety issues.

Statement 2 is not correct: Airports Authority of India (AAI) is responsible for managing and developing civil aviation infrastructure, including airports and air navigation services.

• **Bureau of Civil Aviation Security:** The main responsibilities of BCAS include laying down standards and measures with respect to security of civil flights at international and domestic airports in India.

13. (a)

Bureau of Indian Standards (BIS): Government passed the BIS Act 1986 and was later amended by the BIS Act 2016 for the harmonious development of the activities of standardisation, marking and quality certification of goods and for matters connected therewith or incidental thereto.

o The Act establishes the BIS as the National Standards Body of India.

Statement 1 is correct:

• It is a **Statutory Body** functioning under the aegis of **Ministry of Consumer Affairs, Food and Public Distribution, Government of India**.

Statement 2 is not correct:

• Headquarter: At New Delhi

Statement 3 is not correct: Regional Offices: Kolkata (Eastern), Chennai (Southern), Mumbai (Western), Chandigarh (Northern) and Delhi (Central).

14. (d)

Microsoft India's MS Translator software has now included the Kashmiri language.

<u>Kashmiri</u> is spoken in the Vale of Kashmir and the surrounding hills.

- The Kashmiri vocabulary is mixed, containing Dardic, Sanskrit, Punjabi, and Persian elements.
- The Eighth Schedule to the Constitution consists of the following 22 Languages:- Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, Urdu Bodo, Santhali, Maithili and Dogri.
 - Of these languages, 14 were initially included in the Constitution. Sindhi language was added in 1967.
 - Thereafter three more languages viz Konkani, Manipuri and Nepali were included in 1992. Subsequently Bodo, Dogri, Maithili and Santhali were added in 2004.

15. (b)

Statement 1 is not correct:

- The National Medical Commission (NMC): It has been constituted by an Act of Parliament (The National Medical Commission Act, 2019).
 - The Board of Governors in supersession of Medical Council of India constituted under section 3A of the Indian Medical Council Act, 1956 stands dissolved thereafter.

Statement 2 is correct:

- Mission and Vision of the NMC:
 - To improve access to quality and affordable medical education;
 - To ensure availability of adequate and high quality medical professionals in all parts of the country;
 - o To promote equitable and universal healthcare that encourages community health perspective and makes services of medical professionals accessible to all the citizens.

16. (c)

In News: Recently draft Rules, 2024 have been proposed to implement the provisions of the Press and Registration of Periodicals Act, 2023.

Statement 1 is not correct: Press and Registration of Periodicals Act, 2023 act provides for the registration of periodicals, which include any publication containing public news or comments on public news.

Periodicals do not include books or scientific and academic journals.

Statement 2 is correct : The 1867 Act provides that a declaration specifying the printer/publisher be made to the DM.

• The 2023 act allows the publisher of a periodical to obtain a registration certificate by filing an online application with the **Press Registrar General (PRG) and specified local authority.**

Statement 3 is not correct: A person who has been convicted of a terrorist act or unlawful activity, or has acted against the security of the State will not be allowed to publish a periodical.

17. (c)

Both the statements are correct: The Supreme Court Legal Services Committee was constituted under **Section 3A** of the **Legal Services Authorities Act, 1987**, to provide free and competent legal services to the weaker sections of society, in cases falling under the top court's jurisdiction.

- Section 3A of the Act states that the Central Authority (the National Legal Services Authority or NALSA) shall constitute the committee.
 - o It consists of a **sitting SC judge**, who is the chairman, along with other members possessing the experience and qualifications prescribed by the Centre.
 - Both the chairman and other members will be nominated by the CJI.

18. (c)

Statement 1 is correct:

- VVPATs or Verified Paper Record (VPR) is an independent system attached with the Electronic Voting Machines that allows the voters to verify that their votes are cast as intended.
 - When a voter presses a button in the Electronic Voting Machines (EVM), a paper slip is printed through the VVPAT containing the poll symbol and name of the candidate.

Statement 2 is correct:

• It is intended as an **independent verification system** for voting machines designed to allow voters to verify that their vote was cast correctly, **to detect possible election fraud or malfunction**, and to provide **a means to audit the stored electronic results**.

19. (d)

The report, "State of the Judiciary: A Report on Infrastructure, Budgeting, Human Resources, and ICT", was presented on November 26, 2023, by the Centre for Research & Planning (CRP) of the Supreme Court of India.

- It focuses on analyzing and highlighting the current state of India's justice delivery efforts across four key areas:
 - o infrastructure,
 - o budgeting,
 - o human resources, and
 - o information and communication technology (ICT) integration.

20. (b)

Fourth Judges Case (2015): The constitutional validity of both the Ninety-Ninth Constitutional Amendment and the National Judicial Appointments Commission (NJAC) Act, 2014, was challenged in the Supreme Court in 2015.

A constitutional bench of five judges with a majority of 4:1 struck down the NJAC, declaring them unconstitutional and void, stating that it posed a threat to the independence of the judiciary.

21. (d)

In News: The Financial Intelligence Unit India (FIU IND) issued compliance show cause notices to nine offshore Virtual Digital Asset Service Providers (VDA SPs).

Statements 1 and 2 are not correct : <u>Financial Intelligence Unit – India (FIU-IND)</u> was set by the Government of India in 2004 as the central national agency responsible for receiving, processing, analyzing and disseminating information relating to suspect financial transactions.

- It is an independent body reporting directly to the Economic Intelligence Council (EIC) **headed by the Finance Minister.**
- It is not a law enforcement agency and does not maintain any regional office or employees outside its office at New Delhi, India
- FIU-India does not seek any information from individuals

22. (c)

About the E-SCR portal:

- The Electronic Supreme Court Reports (e-SCR) project is an initiative to provide the digital version of the apex court's judgments in the manner as they are reported in the official law report – 'Supreme Court Reports'.
- Adapting to the new digital times, about **34,000 Supreme Court 'landmark' judgements** will be available for free via e-SCR project to lawyers, law students and the common public.
- This is a project which, in essence, endeavors to take a step forward towards fulfilling the objective of digitization of Indian Judiciary and underlines the vision to bring in a positive change for the benefit of all the stakeholders of justice.

23. (d)

Statement 1 is not correct:

- National Investigation Agency (NIA) Special Courts: Various Special Courts have been notified by the Govt. of India for trial of the cases arising out of offences committed in various states of the Union.
- Appeal: An appeal shall lie from any judgement, sentence or order, not being an interlocutory order, of a Special Court to the High Court both on facts and on law.

Statement 2 is not correct:

- Every appeal shall be **heard by a bench of two Judges of the High Court** and shall, as far as possible, be disposed of within a period of three months from the date of admission of the appeal.
- Power of State Government to constitute Special Courts: The State Government may constitute
 one or more Special Courts for the trial of offences under any or all the enactments specified in
 the Schedule.

24. (b)

In News: The government appointed former Niti Aayog vice chairman and Columbia University professor Arvind Panagariya as the chairman of the Sixteenth Finance Commission.

Statements 1 and 3 are correct: <u>Finance Commission</u> is a Constitutionally mandated body that is at the centre of fiscal federalism.

• It is constituted by the President under article **280 of the Constitution**, mainly to give its recommendations on **distribution of tax revenues** between the **Union and the States** and amongst the States themselves.

- The **First Finance Commission** was constituted under the chairmanship of **Shri K.C. Neogy** in 1952.
 - o **Fifteenth Finance Commissions** have been Constituted so far at intervals of every five years.

Statement 2 is not correct: As per the provisions contained in the Finance Commission [Miscellaneous Provisions] Act, 1951 and The Finance Commission (Salaries & Allowances) Rules, 1951, the Chairman of the Commission is selected from among persons who have had **experience** in **public affairs**.

GEOGRAPHY

- 1. With reference to the Chilika Lake, which of the following statements is/are correct?
 - 1. It is a brackish water lagoon situated along the Western coast of India.
 - 2. It was designated the first Indian wetland of international importance under the Ramsar Convention.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 2. Which one of the following is not located in the South China Sea?
 - (a) Spratly Islands
 - (b) Paracel Islands
 - (c) Senkaku Islands
 - (d) Scarborough Shoal
- **3.** Nine-dash line is sometimes mentioned in news in reference to:
 - (a) East China Sea
 - (b) Indian Ocean
 - (c) Pacific Ocean
 - (d) South China Sea
- **4.** With reference to Western disturbances, sometimes seen in the news, consider the following statements:
 - 1. These are extra-tropical cyclones originating over the Mediterranean sea.
 - 2. A general decrease in the prevailing night temperature at a place indicates its arrival in India.
 - 3. They are brought into India by the Subtropical westerly jet streams.
 - 4. These are good for the Kharif crop, especially wheat.

Which of the statements given above are correct?

- (a) 1 and 3 only
- (b) 2 and 4 only
- (c) 1,2 and 3 only
- (d) All of the above
- 5. With reference to the Western Ghats, which of the following statements is/are correct?
 - 1. It is a long mountain chain which covers an area under the Four states of India.
 - 2. Anamudi is the highest mountain peak of Western Ghat.

Select the correct answer using the code given below:

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

Chokepoint	Location
1. Strait of Hormuz	Persian Gulf and the Gulf of Oman
2. Suez Canal	Black Sea and Mediterranean Sea
3. Malacca Strait	Malay Peninsula and Sumatra Island

How many of the above pairs are correctly matched?

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

7. With reference to the Chenab river, consider the following statements:

- 1. Marusudar is the largest tributary of it.
- 2. Baglihar, Salal, and Ratle are located on this river.
- 3. It empties into the Satluj river.

How many of the statements given above are correct?

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

8. Which one of the following Passes is **not** located in the Pir Panjal range?

- (a) Banihal pass
- (b) Rohtang La
- (c) Diphu Pass
- (d) Sinthan pass

9. With reference to Pir Panjal range, which of the following statements is/are correct?

- 1. It is a chain of mountains in the Lesser Himalayas in the Indian subcontinent.
- 2. It extends between Beas and Kishanganga rivers.

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. Kashmir Valley, is located between which of the following mountains?

- (a) The Great Himalayas and the Pir Panjal Range
- (b) The Great Himalayas and the Zaskar Range
- (c) The Pir Panjal Range and the Zaskar Range
- (d) The Middle Himalayas and Pir Panjal Range

11. The *Sharmishtha Lake*, sometimes mentioned in the news, is located in which of the following Indian states?

- (a) Rajasthan
- (b) Punjab
- (c) Gujarat
- (d) Maharashtra

12. With reference to the Krishnarajasagar (KRS) dam, which of the following statements is/are correct?

- 1. The dam is situated on the Godavari river.
- 2. The dam was built during 1911 to 1932, under the leadership of M Visvesvaraya.

Select the correct answer using the code given below:

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

- 13. The KG-D6 field in the Krishna-Godavari basin is significant due to which of the following reasons?
 - (a) It contains the largest coal reserves in India.
 - (b) It is the source of India's first commercially viable diamond mine.
 - (c) It is the deepest hydrocarbon reservoir discovered in India.
 - (d) It is the largest oil and gas field in India.
- **14.** The places, Dawki, Raxaul, Rupaidiha and Srimantapur, recently seen in the news, are related to which of the following?
 - (a) Dams in South India
 - (b) Ancient Buddhist sites
 - (c) Natural lakes in North East India
 - (d) Land ports in India

EXPLANATIONS

1. (b)

Statement 1 is not correct and Statement 2 is correct.

About Chilika Lake

- Chilika Lake is a brackish water lagoon situated along the eastern coast of Odisha.
- It is the largest coastal lagoon in India and the second largest in the world after The New Caledonian barrier reef.
 - A lagoon is a shallow body of water separated from a larger body of water by a narrow landform, such as reefs, barrier islands, barrier peninsulas, or isthmuses.
- It has been listed as **Ramsar Site** as well as a tentative UNESCO World Heritage site.
- In 1981, Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention.
- 2. (c)

Senkaku Islands

Senkaku Islands

- The Senkaku Islands are a group of uninhabited islands in the East China Sea, administered by Japan.
- The islands are the focus of a territorial dispute between Japan and China and between Japan and Taiwan.
- 3. (d)

South China Sea

Dispute in South China Sea

- Southeast Asian countries like **China, Vietnam, the Philippines, Brunei, Malaysia and Taiwan** have had disputes over the contentious South China Sea region for centuries.
- The two primary points of contention are: The **Spratly Islands** and the **Paracel Islands** in the sea.
- **Nine-dash line:** China stakes claim to most of the region and at the heart of this claim is the U-shaped 'nine-dash line' that includes as much as **90 percent** of these waters.
 - This dotted line was adopted from Chinese maps in the 1940s, and represents Beijing's claim over the sea and all the land features that are contained within the line.
- 4. (a)

- Statement 1 is correct: They are extratropical storms originating in the Mediterranean region that bring sudden winter rain to the north-western parts of the Indian subcontinent, they originate from the Mediterranean Sea.
- Statement 2 is not correct: The increase in the prevailing night temperature generally indicates an advance in the arrival of these cyclone disturbances.
- **Statement 3 is correct:** It is a non-monsoonal precipitation pattern driven by the Subtropical westerlies Jet stream.
- Statement 4 is not correct: The Western disturbances are of great help to rabi crops (precipitation needed by them is favourable). Though too much of it is harmful to the crops the winter shower is necessary especially wheat (Wheat is a staple food in India).

5. (b)

Statement 1 is not correct and Statement 2 is correct.

- 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.
- Western Ghats were accorded the World Heritage Status by UNESCO in 2012.
- Anamudi is the highest mountain peak of Western Ghat.

6. (b)

Pair 1 is correctly matched: Strait of Hormuz: Located between the Persian Gulf and the Gulf of Oman, the Strait of Hormuz is a crucial passage for oil shipments from the Middle East.

Pair 2 is not correctly matched: Suez Canal: Connecting the Mediterranean Sea to the Red Sea, the Suez Canal is a vital shortcut for ships traveling between Europe and Asia.

O It significantly reduces the travel distance and time compared to the alternative route around the southern tip of Africa.

Pair 3 is correctly matched: Malacca Strait: Situated between the Malay Peninsula and the Indonesian island of Sumatra, the Malacca Strait is one of the busiest waterways globally.

7. (c)

In News: Recently, the Chenab River has been diverted to expedite construction of a dam for the Ratle Hydro Electric Project in J&K.

Statement 1 is correct:

- River Chenab originates from **Lahaul valley** of Himachal Pradesh.
- Tributaries of Chenab: Thirot, Sohal, Bhut nallah, and the Marusudar.
 - o The **Marusudar** is the largest tributary of Chenab.

Statement 2 is correct:

• The river has several hydroelectric projects, including the **Baglihar Stage I and the Salal I & II; and Ratle** Hydroelectric Projects.

Statement 3 is correct:

• The Chenab River **empties into the Sutlej River**, which is a tributary of the Indus River.

8. (c)

Diphu Pass

Diphu Pass

• Diphu Pass is a mountain pass around the area of the tripoint borders of India, China, and Myanmar.

• Diphu Pass is also a strategic approach to eastern Arunachal Pradesh in India.It lies on the McMahon Line.

Pir Panjal range passes

Pir Panjal Pass, Banihal pass, Sinthan pass, Saach Pass, Rohtang La.

9. (c)

Both the Statements are correct.

Pir Panjal range

- The Pir Panjal Range is a chain of mountains in the **Lesser Himalayan** region located in the Indian subcontinent.
- It extends between **Beas and Kishanganga rivers**, from Himachal Pradesh to Jammu and Kashmir.
- Passes: Pir Panjal Pass, Banihal pass, Sinthan pass, Saach Pass, Rohtang La.
- The Pir Panjal Pass connects the Kashmir valley with Rajouri and Poonch via the Mughal Road.

10. (a)

Kashmir Valley

- The valley is surrounded by ranges of the Himalayas, bounded on the southwest by the **Pir Panjal Range** and on the northeast by the **Greater Himalayan range**.
- It is approximately 135 km long and 32 km wide, and drained by the **Jhelum River**.

11. (c)

Vadnagar: It was a multicultural and multireligious (Buddhist, Hindu, Jain and Islamic) settlement, currently located in the **Mehsana district of North Gujarat**, India.

- o It is also known by names like Vridhanagar, Anandapur, Anantapur and Nagar.
- It is an **L-shaped town with Sharmishtha Lake** on its northeastern edge.
- The town represents a continuously evolving historic urban landscape/area which played a major role in the hinterland trade network of Western India.
- World Heritage Site (UNESCO): Vadnagar was added to the tentative list in December 2022.

12. (b)

Statement 1 is not correct and Statement 2 is correct.

Krishnarajasagar (KRS) dam

- The dam is below the confluence of river **Kaveri** with its tributaries **Hemavati** and **Lakshmana Tirtha**, in the Mandya district of Karnataka.
- The dam was built during the period between 1911 to 1932, under the leadership of Sir M Visvesvaraya.
- It was a dream and vision of the great Maharaja of Mysore, Krishna Raja Wadiyar IV.

13. (d)

Importance of the Krishna-Godavari basin:

- The Krishna-Godavari basin is an **important economic asset for India.** The basin provides a significant **source of energy, minerals, and other natural resources** for the country.
- The Krishna-Godavari basin is a **major source of energy for India**, home to a number of oil and gas fields, including the **KG-D6 field**, **which is the largest oil and gas field in India**.

14. (d)

About the Land Ports in India:

• Land ports are also known as Integrated Check Posts (ICPs).

• There are 11 operational land ports in India- Attari, Agartala, Dawki, Petrapole, Raxaul, Rupaidiha, Jogbani, Moreh, Sutarkandi, Srimantapur and Passenger Terminal Building (PTB) at Dera Baba Nanak. Of the total 11 land ports, major trade was registered through Attari, Agartala, Petrapole, Raxaul, Jogbani, Sutarkandi and Srimantapur in 2023.

GOVERNMENT SCHEMES/INITIATIVE

- **1.** With reference to the National Perspective Plan of Interlinking of Rivers (ILR) Programme, consider the following statements:
 - 1. The National Water Development Agency (NWDA) has been entrusted with the work of Interlinking of Rivers under it.
 - 2. Kosi-Mechi Link project and Kosi-Ghaghra link project comes under the Peninsular Rivers Development Component of the Programme.

Which 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 regarding the Child Marriage Restraint Act, 1929:
 - 1. The practice of child marriage was first legally prohibited through the Child Marriage Restraint Act, 1929.
 - 2. This Act was amended in 1978 to increase the minimum age of marriage to 18 years for both men and women.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **3.** Consider the following statements:
 - 1. Aadhaar card can be used as a proof of citizenship or date of birth.
 - 2. Once issued, the Aadhaar number cannot be deactivated or omitted by the Issuing Authority.

Which 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 *PM YASASVI Scheme*, consider the following statements:
 - 1. It is a scholarship program for Other Backward Class (OBC) and Economically Backward Class (EBC) only.
 - 2. It offers both pre-matric and post matric scholarships.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 5. With reference to the All-India Survey of Higher Education (AISHE),

2021-22, consider the following statements:

- 1. The total enrolment in higher education in 2021-22 has increased from previous year.
- 2. The enrollment is highest in the commerce stream.
- 3. The highest share of foreign students is from Bhutan.

How many statements given above are correct?

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

6. The recently launched 'SARATHI App' is related to:

- (a) Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)
- (b) Deen Dayal Upadhyaya Antyodaya Yojana National Rural Livelihoods Mission (DAY NRLM)
- (c) Smart City Mission
- (d) Swachh Bharat Abhiyan (Urban)

7. With reference to Pradhan Mantri Awas Yojana-Urban (PMAY-U), which of the following statements is/are correct?

- 1. The scheme is launched by the Ministry of Housing and Urban Affairs (MoHUA).
- 2. Central Assistance of Rs. 5 Lakh per Economically Weaker Section (EWS) house is provided by the Government.

Select the correct answer using the code given below:

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

8. With reference to the *National Coal Gasification Mission*, consider the following statements:

- 1. It aims to achieve 100 MT coal gasification by 2047.
- 2. It aims to reduce coal imports in India by 2030.

Which of the statements given above is/are correct?

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

9. 'MADAD' online portal is related to which of the following?

- (a) To ensure safety of women in Urban India.
- (b) Scholarship scheme for Economically weaker sections.
- (c) Aims to work towards ending Human Trafficking through Railways.
- (d) Consular Services for Indian Diaspora in Distress.

10. With reference to the Members of Parliament Local Area Development Scheme (MPLADS), consider the following statements:

- 1. The annual MPLADS fund entitlement per MP constituency is Rs. 5 crore.
- 2. Nominated Members of both the Rajya Sabha and Lok Sabha cannot recommend works under the scheme.

Which of the statements given above is/are correct?

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

11. With reference to the *National Essential Diagnostics List (NEDL)*, consider the following statements:

- 1. India's first NEDL was released in 2019 after the suggestions made by the World Health Organisation (WHO).
- 2. It lists the most basic tests available at various levels of healthcare facilities.

Which 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 Multidimensional Poverty in India, consider the following statements:

- 1. India has registered a significant decline in multidimensional poverty.
- 2. Madhya Pradesh has registered the largest decline among the states.

Which of the statements given above is/are correct?

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

13. The "One Vehicle, One FASTag" initiative stands for?

- (a) Encourages carpooling for cheaper tolls
- (b) Mandates linking only one FASTag to a vehicle
- (c) Offers discounts for using FASTag regularly
- (d) Penalise drivers for avoiding toll plazas

14. With reference to the Agnipath scheme, consider the following statements:

- 1. It is a short-term recruitment scheme for the Indian Army also called Tour of Duty.
- 2. All the recruits from a batch are retained for regular service.

Which 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. With reference to the 'Swachh Survekshan Awards 2023', consider the following statements:

- 1. Rajasthan, Mizoram and Arunachal Pradesh were placed at the bottom of the best performing states.
- 2. Its theme was 'Reduce, Reuse and Recycle'.

Which of the statements given above is/are correct?

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

16. The primary objective of the National Mission for Clean Ganga (NMCG) is to:

- (a) Improve water quality of Ganga river for irrigation purposes.
- (b) Develop hydroelectric power projects along the Ganges River.
- (c) Rejuvenate and conserve the entire Ganga river basin.
- (d) Attract tourism and promote riverfront development.

17. The Schedule M of the Drugs and Cosmetics Rules, 1945, recently seen in the news, refers to which of the following?

- (a) Drugs which can be sold over the counter without prescription of the registered medical practitioner.
- (b) Drugs which can not be sold without prescription of the registered medical practitioner.
- (c) The Good Manufacturing Practices (GMP) for pharmaceutical products.
- (d) The drugs which were tested on animals for ensuring their efficacy and effectiveness.

- **18.** With reference to the *India's Carbon Credit and Trading Scheme (CCTS)*, consider the following statements:
 - 1. It aims to develop the first-ever domestic carbon market of India.
 - 2. It performs under direct supervision of the Union Ministry of Environment, Forests and Climate Change.

Which 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.** SVAMITVA (Survey of villages and mapping with improvised technology in village areas) scheme, is an initiative of which of the following ministries?
 - (a) Ministry of Panchayati Raj
 - (b) Ministry of Earth Sciences
 - (c) Ministry of Rural development
 - (d) Ministry of Science and Technology
- **20.** With reference to Members of Parliament Local Area Development Scheme (MPLADS), Consider the following statements:
 - 1. Under this scheme, the funds are released in the form of grants-in-aid directly to the district authorities.
 - 2. The funds released under the scheme are lapsable if not spent in a particular year.
 - 3. The implementation and monitoring of the scheme are done by the Ministry of Finance.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 1 and 3 only
- (d) 2 only
- 21. Consider the following statements with reference to the PRERANA program.
 - 1. It is an experiential learning for developing leadership qualities in students of class VI to XII.
 - 2. It is a week-long residential program that has been launched by the Ministry of Skill Development and Entrepreneurship.

Which of the statements given above is/are correct?

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

EXPLANATIONS

1. (a)

Statement 1 is correct: The Government of India formulated a National Perspective Plan (NPP) for interlinking of rivers (ILR) in 1980.

• The National Water Development Agency (NWDA) has been entrusted with the work of Interlinking of Rivers under the National Perspective Plan (NPP).

Statement 2 is not correct: The NPP has two components, viz; Himalayan Rivers Development Component and Peninsular Rivers Development Component.

- Under the Himalayan Rivers Development Component of the NPP, 3 link projects, viz; Kosi-Mechi
 Link project, Kosi-Ghaghra link project and Chunar-Sone Barrage link project
- It envisages transfer of water from Kosi, Ghaghra and Gandak rivers flowing down from Nepal to the other rivers in the State of Bihar.

2. (a)

Statement 1 is correct: In India, the practice of child marriage was first legally prohibited through the Child Marriage Restraint Act, 1929.

• As per the 1929 Act, marriage of girls below the age of 14 years and boys below the age of 18 years was prohibited.

Statement 2 is not correct: Child Marriage Restraint Act, 1929 was amended in 1978 to increase the minimum age to 18 years for females, and 21 years for men.

• The Prohibition of Child Marriage Act, 2006 replaced the 1929 Act, with the same minimum age limits.

3. (d)

Both Statement 1 and Statement 2 are not correct.

About Aadhar:

- Section 9 of the Aadhaar Act, 2016 states the Aadhaar number or the authentication thereof do not confer any right/proof of citizenship or domicile.
 - The Ministry of Electronics and Information Technology has also clarified in a 2018 memorandum that Aadhaar is "per se... not a proof of date of birth", as the date of birth is based on a different document given by applicants.
- The Aadhaar Act regulations state that an individual's Aadhaar number may be "omitted" permanently or deactivated temporarily by the Unique Identification Authority of India (UIDAI).

4. (b)

In News: Recently, **scholarships funds** under the PM YASASVI Scheme for Pre-Matric and Post-Matric have been released.

Statement 1 is not correct:

PM YASASVI (PM Young Achievers' Scholarship Award Scheme for a Vibrant India) Scheme: It is a
scholarship program designed for students belonging to Other Backward Class (OBC), Economically
Backward Class (EBC), and Denotified Nomadic Tribes (DNT).

Statement 2 is correct:

- Salient Features of the Schemes:
 - **Pre-Matric Scholarship** for students studying in class IX and X on a full-time basis in Government Schools only.
 - o **Post-Matric Scholarship** to enable the students to complete their education.

5. (a)

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

Context

 Recently, the Ministry of Education has released the All-India Survey of Higher Education (AISHE), 2021-22.

About

• It has been conducted since 2011, covering all Higher Educational Institutions (HEIs) in the country registered with AISHE.

• It collects detailed information on different parameters such as student enrollment, teachers' data, infrastructural information, financial information, etc.

Key Findings

- The total enrolment in higher education has increased to nearly 4.33 crore in 2021-22 from 4.14 crore in 2020-21.
 - Out of 4.33 crore, **15.3%** belong to Scheduled Caste, **6.3%** belong to Scheduled Tribe, **37.8%** are from Other Backward Class and remaining **40.6%** students are from other communities.
 - o The Female enrolment has seen 32% increase in 2021-22 from 2014-15.
 - o The Minority enrolment has increased to 38% in 2021-22 from 2014-15.
- The Gross Enrolment Ratio (GER) in higher education for the age group 18-23 years has increased to 28.4 in 2021-22,, from 27.3 in 2020-21 and 23.7 in 2014-15
- The top States in terms of Student Enrolment are Uttar Pradesh, Maharashtra, Tamil Nadu, Madhya Pradesh, West Bengal and Rajasthan.
- The highest share of foreign students is from Nepal (28%), followed by Afghanistan (6.7%), United States (6.2%), Bangladesh (5.6%), UAE (4.9%), and Bhutan (3.3%).
- The enrollment is highest in Arts (34.2%), followed by Science (14.8%), Commerce (13.3%) and Engineering & Technology (11.8%).

6. (b)

In News: Recently, the government has launched the 'SARATHI' App for Deen Dayal Upadhyaya Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM).

SARATHI App is a **technological solution** to help the poorest of the poor set up sustainable livelihoods which is developed by the **Union Ministry of Rural Development**.

- It is expected **to increase the effectiveness** of work at multiple levels, reduce cognitive and administrative load, and ensure transparency.
- **Real-time usage** of the app mitigates the risk of leakage of consumption and livelihood support being provided to the target households.

7. (a)

Statement 1 is Correct and Statement 2 is not correct.

About PMAY-U

- The Ministry of Housing and Urban Affairs (MoHUA) launched the Pradhan Mantri Awas Yojana Urban (PMAY-U) in **2015**, as a flagship Mission of the Government of India.
- Objective: It addresses urban housing shortage among the Economically Weaker Section (EWS)/Low Income Group (LIG) category including the slum dwellers by ensuring a pucca house to eligible urban households.

Components of the scheme

- Affordable Housing in Partnership (AHP): Under AHP, Central Assistance of Rs. 1.5 Lakh per EWS
 house is provided by the Government of India.
- In-situ Slum Redevelopment (ISSR): Central Assistance of Rs. 1 lakh per house is admissible for all houses built for eligible slum dwellers under the component of ISSR using land as a Resource with the participation of private developers.
- Credit Linked Subsidy Scheme (CLSS): Beneficiaries are eligible for an interest subsidy of 6.5%, 4% and 3% on loan amounts up to Rs. 6 Lakh, Rs. 9 Lakh and Rs. 12 Lakh respectively.
- Beneficiary-led Individual House Construction/ Enhancement (BLC-N/ BLC-E): Central Assistance
 up to Rs. 1.5 lakh per EWS house is provided to eligible families belonging to EWS categories for
 individual house construction/ enhancement.

8. (b)

Statement 1 is not correct:

- National Coal Gasification Mission: It is an initiative by the Union Ministry of Coal, under the Atmanirbhar Bharat Abhiyaan.
 - The mission aims to utilise coal through coal gasification, with the goal of achieving 100 MT coal gasification by 2030, with investments worth over Rs 4 trillion.

Statement 2 is correct:

- It envisions the **adoption of indigenous technologies** for the production of chemical products and their derivatives.
- It is expected to reduce imports by 2030.

9. (d)

The Government of India launched an online portal: MADAD ('MEA' in Aid of Indian Diaspora in Distress), a Consular Services Management System.

 Consular services regarding compensation, court cases, domestic helps, imprisonment abroad, transportation of mortal remains, repatriation, salary dues, tracing the whereabouts can be lodged under this portal. Services relating to visa and passport, travel documents, attestation of documents will not be entertained in this portal.

10. (a)

Statement 1 is correct: The annual MPLADS fund entitlement per MP constituency is Rs. 5 crore.

 MPs are to recommend every year, works costing at least 15 percent of the MPLADS entitlement for the year for areas inhabited by Scheduled Caste population and 7.5 percent for areas inhabited by Scheduled Tribes populatio

Statement 2 is not correct: Lok Sabha Members can recommend works within their Constituencies and Elected Members of Rajya Sabha can recommend works within the State of Election.

 Nominated Members of both the Rajya Sabha and Lok Sabha can recommend works anywhere in the country.

11. (c)

Statement 1 is correct:

- National Essential Diagnostics List (NEDL):
 - o **Background:** In 2018, the **WHO** had recommended the development and implementation of **an NEDL** *to facilitate the availability of in-vitro diagnostics* across the various tiers of the healthcare pyramid, in facilities **with or without an onsite laboratory.**
- India's first NEDL was released in 2019 by ICMR, to make the availability of diagnostics an essential component of the healthcare system.

Statement 2 is correct:

- It lists the **essential and most basic tests** that should be available at various levels of **healthcare facilities** at the *village level, in sub-health centres, health and wellness centres, and primary health centres.*
- It contains the minimum diagnostic tests that should be available at healthcare facilities;

12. (a)

• **Statement 1 is correct:** India has registered a significant decline in multidimensional poverty from 29.17% in 2013-14 to 11.28% in 2022-23 i.e. a **reduction of 17.89 percentage points.**

• Statement 2 is not correct: Uttar Pradesh registered the largest decline in the number of poor with 5.94 crore people escaping multidimensional poverty during the last nine years followed by Bihar, Madhya Pradesh and Rajasthan.

13. (b)

The 'One Vehicle, One FASTag' initiative:

- Launched by: The National Highways Authority of India (NHAI)
- Aim: To improve the efficiency of the Electronic Toll Collection (ETC) system and provide seamless movement at the Toll Plazas.
- Objectives:
 - O Discourage misuse of FASTags: This initiative tackles situations where a single FASTag is used on multiple vehicles or multiple FASTags being issued for a particular vehicle, causing confusion and delays at toll plazas.
 - Enhance transparency and accountability: Linking one FASTag to one vehicle helps track transactions and ensures proper revenue collection for toll operators.
 - o **Streamline toll operations:** Eliminating confusion and discrepancies smoothens traffic flow and minimizes congestion at toll plazas.

14. (a)

- Statement 1 is correct: Introduced in 2022, the Agnipath scheme also called the Tour of Duty scheme is a short-term recruitment scheme for the Indian Army.
- Statement 2 is not correct: Under the policy, soldiers called 'Agniveers' are recruited for four years, at the end of which only 25 percent of recruits from a batch are retained for regular service.

15. (a)

Recently, the President of India presented the 'Swachh Survekshan Awards 2023' at Bharat Mandapam in New Delhi.

Statement 1 is correct:

- Best Performing State: Maharashtra, Madhya Pradesh and Chhattisgarh secured the rank 1, 2 and 3 respectively.
 - Odisha is ranked fourth, followed by Telangana, Andhra Pradesh, Punjab, Gujarat, Uttar Pradesh, Tamil Nadu, Sikkim, Karnataka, Goa, Haryana and Bihar.
 - Rajasthan, Mizoram and Arunachal Pradesh were placed at the bottom in the rank.

Statement 2 is not correct:

- **Swachh Survekshan** has been instrumental in fostering a spirit of healthy competition among towns and cities to improve their service delivery to citizens and towards creating cleaner cities.
- Theme for 2023 was 'Waste to Wealth', and for 2024 is 'Reduce, Reuse and Recycle'.

16. (c)

National Mission for Clean Ganga (NMCG):

- NMCG was registered as a society on 12th August 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 has since been dissolved with effect from the 7th October 2016, consequent to the constitution of National Ganga Council (National Council for Rejuvenation, Protection and Management of River Ganga).
- Parent body: Ministry of Jal Shakti
- Mandate:
 - o Rejuvenate and conserve the entire Ganga river basin.

- o To ensure effective abatement of pollution and rejuvenation of the river Ganga by adopting a river basin approach.
- O To maintain minimum ecological flows in the river Ganga with the aim of ensuring water quality and environmentally sustainable development.

17. (c)

The Ministry of Health and Family Welfare (MoHFW) has notified revised Pharma manufacturing rules under Schedule M of the Drugs and Cosmetics Rules, 1945.

- Schedule M prescribes the Good Manufacturing Practices (GMP) for pharmaceutical products.
- GMP is mandatory standards which builds and brings quality into a product by way of control on materials, methods, machines, processes, personnel, and facility/environment, etc.

18. (a)

Statement 1 is correct:

• The Carbon Credit and Trading Scheme (CCTS): It was notified by the Union Government under the Energy Conservation Act, 2001, to develop the country's first-ever domestic carbon market. It was set up as the regulatory framework for the Indian Carbon Market (ICM), with BEE as the administrator.

Statement 2 is not correct:

• In exercise of the powers conferred in the Energy Conservation Act, 2001 the Union Ministry of Power, in consultation with the Bureau of Energy Efficiency (BEE), has launched the Carbon Credit Trading Scheme to address the issue of greenhouse gas (GHG) emissions and mitigation of climate change in the country.

19. (a)

Ministry of Panchayati Raj

<u>About</u>

- SVAMITVA Scheme of the Ministry of Panchayati Raj is a Central Sector Scheme (fully funded by the central government) that has significantly contributed to the empowerment of rural communities in India.
- The scheme ensures accurate demarcation of land parcels, thereby mitigating disputes and providing individuals with property records of rights i.e. SVAMITVA Property Cards
- It facilitates monetization of properties, enabling bank loans and comprehensive village-level planning.

20. (a)

- Statement 1 is correct: MPLADS is a centrally-sponsored plan scheme fully funded by the government of India. Under this scheme, the funds are released in the form of grants in aid directly to the district authorities. Under the scheme, each MP has the choice to suggest to the District Collector for works to the tune of Rs.5 Crores per annum to be taken up in his/her constituency.
- **Statement 2 is not correct:** The funds released under the scheme are non-lapsable. This means that if the funds for a particular project is not spent in that year, it will be carried forward.
- **Statement 2 is not correct:** The Ministry of Statistics and Programme has issued the guidelines on MPLADS Scheme including implementation and monitoring of the scheme. The Department has initiated all necessary steps to ensure that the scheme is successfully implemented in the field.

21. (d)

<u>Statements 1 and 2 are not correct: PRERANA program</u> is a **week-long residential** program for selected students of class **IX to XII.** The **Ministry of Education** has launched the **'Prerana 'program.**

- It is an **experiential and inspirational learning program** for students with the best-in-class technology where heritage meets innovation.
- A batch of 20 selected students (10 boys and 10 girls) will attend the program every week from various parts of the country.
 - o It will run from a **Vernacular School,** established in **1888**, in one of the oldest living cities of India, Vadnagar, district Mehsana, Gujarat.

It will feature yoga, mindfulness, and meditation sessions, followed by experiential learning, thematic sessions, and hands-on interesting learning activities.

DEFENCE / INTERNAL SECURITY

- 1. Which one of the following countries participated in 'SADA TANSEEQ' along with India?
 - (a) Saudi Arabia
 - (b) Oman
 - (c) Iran
 - (d) UAE
- 2. With reference to the Project-75 (India)/P-75(I), consider the following statements:
 - 1. It is a follow-up to Project 75 and improves upon the design and technology of its predecessor.
 - 2. Under it submarines will be equipped with electrical batteries to power them.

Which 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 'Operation Sarvashakti', consider the following statements:
 - 1. It is an anti-terror campaign, launched by the Indian Army in Jammu and Kashmir's Pir Panjal Range.
 - 2. The operation is reminiscent of Operation Sarpvinash, which was launched in 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
- **4.** With reference to the Border Security Force (BSF), consider the following statements:
 - 1. It has the power to arrest, search and seize.
 - 2. It does not have the power to investigate or prosecute offenders.

Which 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. Vijay Raghavan committee, recently seen in the news, is related to which of the following?
 - (a) To review the functioning of the DRDO.
 - (b) To reform the Prime Minister's office (PMO).
 - (c) To speed up the defence exports from the country.
 - (d) To review the infrastructure along LoC on the India-China border.
- **6.** The exercise 'KHANJAR', recently seen in the news, is a joint exercise held annually between India and which of the following countries?
 - (a) Uzbekistan
 - (b) Afghanistan
 - (c) Kazakhstan
 - (d) Kyrgyzstan
- 7. Vijay Raghavan committee recently submitted its report, it is related to which of the following?
 - (a) Set up to review functioning of Defence Research and Development Organisation (DRDO)

- (b) Set up to take steps for preventing stubble burning in Punjab, Haryana, and Uttar Pradesh.
- (c) Set up to address various risks that have been triggered by the Covid-19 variant JN.1.
- (d) Set up to examine all aspects of the educational sector in India
- **8.** Recently, India held the maiden Bilateral Maritime Exercise 'Ex-Ayutthaya', with which of the following countries?
 - (a) Azerbaijan
 - (b) Thailand
 - (c) Malaysia
 - (d) Seychelles
- **9.** With reference to the Cyber Crimes, consider the following statements:
 - 1. It refers to criminal activities that involve the use of computers, networks, and digital technologies.
 - 2. Malware is an attempt to acquire sensitive information, such as usernames, passwords, and financial details.

Which 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 countries:
 - 1. Maldives
 - 2. Bangladesh
 - 3. Seychelles
 - 4. Mauritius

Which of the above countries are member states of the Colombo Security Conclave?

- (a) 1, 3 and 4 only
- (b) 1 and 4 only
- (c) 1, 2 and 3 only
- (d) 1, 2, 3 and 4
- **11.** Consider the following Indian states:
 - 1. Mizoram
 - 2. Tripura
 - 3. Manipur
 - 4. Arunachal Pradesh
 - 5. Nagaland

Which of the above share the border with Myanmar?

- (a) 1, 2, 4 and 5 only
- (b) 1, 3, 4 and 5 only
- (c) 3, 4 and 5 only
- (d) 1, 2, 3, 4 and 5
- **12.** Consider the following statements:
 - 1. India tested its first nuclear weapon in 1974, becoming the sixth country to detonate a nuclear weapon.
 - 2. India is a member of Missile Technology Control Regime (MTCR) and Nuclear Suppliers Group (NSG).

Which 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 pairs:

Name of Military Exercises : Related Countries

1. Desert : Iran

Sampriti : Bangladesh
 Khanjar : Egypt
 Garuda Shakti : Thailand

How many of the above pairs are correctly matched?

(a) Only one pair

- (b) Only two pairs
- (c) Only three pairs
- (d) All four pairs

EXPLANATIONS

1. (a)

In News: Recently, 'SADA TANSEEQ', a First Joint Military Exercise between India and Saudi Arabia inaugurated at Mahajan in Bikaner, Rajasthan.

- It involved the Establishment of Mobile Vehicle Check Post, Cordon & Search Operation, House Intervention Drill, Reflex Shooting, Slithering and Sniper Firing.
- Participants: The Indian Army contingent is represented by a Battalion from the Brigade of the Guards (Mechanised Infantry).
 - o The Saudi Arabian contingent is being represented by the Royal Saudi Land Forces.

2. (a)

Statement 1 is correct: Project 75I is a **follow-up to Project 75** and improves upon the design and technology of its predecessor.

Statement 2 is not correct: The conventional diesel-electric submarines such as the Scorpene, under Project 75, come with improved stealth features however, as **electrical batteries power** them, they need to **surface every 48 hours** to be recharged.

• The Air-Independent Propulsion System (AIP) technology will improve on this in Project 751 building six submarines that can stay submerged for up to two weeks.

3. (c)

Both the statements are correct.

News

 The Indian Army has launched Operation Sarvashakti, an anti-terror campaign in Jammu and Kashmir's Pir Panjal Range, following a series of recent terror attacks in the Poonch and Rajouri regions.

About

- The operation is on the lines of Operation Sarpvinash of 2003, which was launched against terrorists south of the Pir Panjal range.
- The operation will focus on locating the terrorists' hideouts in the dense jungles, mountains, and the caves.

Pir Panjal Range

• Pir Panjal Range is a group of mountains in the Lesser Himalayan region which extends from PoK to J & K and Himachal Pradesh.

4. (c)

Statement 1 is correct:

- BSF Jurisdiction: The powers of the BSF include the power to arrest, search and seize under laws such as the Passport (Entry into India) Act, 1920, Passport Act, 1967, Customs Act, 1962, The Narcotic Drugs and Psychotropic Substances Act, 1985, and certain other laws.
- In practice, BSF personnel usually work in close coordination with the police and there ought to be no clash of jurisdiction.

Statement 2 is correct:

- It mainly focuses on preventing trans-border crimes, especially unauthorised entry into or exit from Indian territory.
- It does not have the power to investigate or prosecute offenders, but has to hand over those arrested and the contraband seized from them to the local police.

5. (a)

About the Vijay Raghavan committee:

• The nine-member VijayRaghavan panel was set up by the government in 2023 to review the functioning of the Defence Research and Development Organisation (DRDO), against the backdrop of several of its projects suffering from huge delays.

Major suggestions:

- More focus on R&D: The DRDO should focus on its original goal of research and development for defence and refrain from involving itself in productization, production cycles, and product management, tasks that are more suitable for the private sector.
- **Identify expertise:** There is a necessity to identify expertise within India and internationally for various technologies.
- Creation of a separate department: Under the Defence Ministry, the Department of Defence Science, Technology, and Innovation can be created.
 - o This department is proposed to be headed by a technocrat.
 - o It will **promote defence research and development** in the academic and start-up ecosystem and also **serve as the secretariat for the Defence Tech Council**, chaired by the Prime Minister.
- Defence Tech Council: The committee recommended a top level body called the Defence Technology Council.

6. (d)

Statement d is correct.

EXERCISE KHANJAR:

- It is an **annual event** conducted alternatively in **India and Kyrgyzstan**.
- **Aim**: To exchange experiences and best practices in Counter Terrorism and Special Forces Operations in Built-up Area and Mountainous Terrain under **Chapter VII of United Nations Charter**.

Significance:

- The exercise will **emphasise on developing Special Forces skills,** advanced techniques of insertion and extraction.
- The exercise will also accord the opportunity to showcase capabilities of cutting edge indigenous defence equipment besides achieving shared security objectives and foster bilateral relations.

7. (a)

<u>In News</u>: A nine-member committee headed by former **Principal Scientific Advisor to government**, **K Vijay Raghavan** has submitted its report recently .

- It was set up by the Ministry of Defence (MoD) in 2023 to review the functioning of the Defence Research and Development Organisation (DRDO).
 - The government's decision to review the functioning of DRDO comes against the backdrop of several of its **projects suffering from huge delays.** Major Recommendations
 - Set up Defence Technology Council: chaired by the Prime Minister, with the Defence Minister and the National Security Advisor as its Vice Presidents
- It should determine the **country's defence technology roadmap** and decide on major projects and their execution.

8. (b)

Option b is correct.

- The maiden Bilateral Maritime Exercise between the Indian Navy (IN) and Royal Thai Navy (RTN) was conducted from 20 to 23 December 2023.
- The Bilateral Exercise is being named as 'Ex-Ayutthaya', which literally translates to 'The Invincible One' or 'Undefeatable', and symbolises the significance of two of the oldest cities Ayodhya in India and Ayutthaya in Thailand, the historic legacies, rich cultural ties and shared historical narratives dating back to several centuries.
- As part of Government of India's vision of SAGAR (Security And Growth for All in the Region), the Indian Navy has been proactively engaging with countries in the Indian Ocean Region towards enhancing regional maritime security.

9. (a)

Statement 1 is correct: Cybercrime refers to criminal activities that involve the use of computers, networks, and digital technologies.

• It encompasses a wide range of illicit activities conducted in the virtual space, often with the intent to compromise, damage, or gain unauthorized access to computer systems, networks, and data.

Statement 2 is not correct: Malware: Malicious software designed to disrupt, damage, or gain unauthorized access to computer systems. This includes viruses, worms, trojans, ransomware, and spyware.

• **Phishing:** Deceptive attempts to acquire sensitive information, such as usernames, passwords, and financial details, by posing as a trustworthy entity.

10. (b)

Colombo Security Conclave (CSC):

- Member States: India, Maldives, Mauritius and Sri Lanka.
- Observers: Bangladesh and Seychelles
- Activities under the **five pillars** of cooperation of the CSC:
 - Maritime Safety and Security;
 - o Countering Terrorism and Radicalization;
 - Combating Trafficking and Transnational Organized
 Crime;
 - O Cyber Security, Protection of Critical Infrastructure and Technology; and,
 - o Humanitarian Assistance and Disaster Relief.



11. (b)

India shares a 1,643 km-long border with Myanmar, which passes through the States of Arunachal Pradesh (520 km), Nagaland (215 km), Manipur (398 km), and Mizoram (510 km).

- Both countries share a heritage of religious, linguistic and ethnic ties. Myanmar has a substantial population of Indian origin.
- Myanmar is our **gateway to Southeast Asia and ASEAN** with which we are seeking greater economic integration through India's **'Look East' and 'Act East' Policy**.

12. (a)

Statement 1 is correct:

- Nuclear Power of India: India tested its first nuclear weapon in 1974, becoming the sixth country to
 detonate a nuclear weapon, and it has approximately 164 nuclear warheads, and has land-based,
 sea-based and air-launch nuclear capabilities.
- India had declared a **No First Use policy**, which means they have vowed to never use nuclear weapons first in a conflict.
 - o However, as of August 2019, India said they are reconsidering this policy.

Statement 2 is not correct:

- India is pursuing membership to the **Nuclear Suppliers Group (NSG)** and became a member of the **Missile Technology Control Regime (MTCR)** in 2016.
 - O India has **not signed** the **Nuclear Non-Proliferation Treaty nor The Comprehensive Test Ban**Treaty.

13. (a)

In News: The Joint Military Exercise 'Desert Cyclone 2024' will be held from January 2 to January 15 in Rajasthan.

Pairs 1,3 and 4 are incorrectly matched : <u>Exercise 'Desert Cyclone 2024</u> is the Joint Military Exercise between India and UAE

Kyrgyzstan: Ex KHANJAR

Indonesia: Ex GARUDA SHAKTI

Only Pair 2 is correctly matched: Bangladesh: SAMPRITI.

INTERNATIONAL RELATIONS

- **1.** With reference to UN Relief and Works Agency for Palestinian Refugees in the Near East (UNRWA), consider the following statements:
 - 1. It was founded after the Arab-Israeli war (1948).
 - 2. It is funded almost entirely by voluntary contributions.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 2. With reference to the ECOWAS (Economic Community of West African States) which of the following statements is/are correct?
 - 1. The regional group was established in 1975 through the Lagos Treaty, with a mandate of promoting economic integration among its members.
 - 2. Its headquarter is located in Nigeria.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **3.** With reference to the World health organization (WHO), which of the following statements is/are correct?
 - 1. WHO was founded after the First world war in 1919.
 - 2. The headquarters is situated in Rome, Italy.

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.** Recently, Russia blames Ukraine for an attack on a gas terminal at the Baltic Sea port.

In context of the above statements, which of the following countries share a border with the Baltic Sea?

- 1. Denmark
- 2. Germany
- 3. Poland
- 4. Switzerland
- 5. Finland

Select the correct answer using the code given below:

- (a) 1, 2, 3 and 5 only
- (b) 1, 3 and 4 only
- (c) 2, 4 and 5 only
- (d) 1, 2, 3, 4 and 5
- **5.** NATO was established in response to which geopolitical event?
 - (a) Cuban Missile Crisis
 - (b) Korean War

- (c) Soviet invasion of Afghanistan
- (d) Berlin Airlift

6. With reference to the Group of 77 (G-77), consider the following statements:

- 1. It was established in 1964 by seventy-seven developed countries.
- 2. It is guided by the Charter of Algiers, which acts as its institutional structure.

Which 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. "Torkham Crossing", recently seen in the news, is related to:

- (a) Iran and Afghanistan
- (b) Pakistan and Afghanistan
- (c) Pakistan and Iran
- (d) Turkey and Iran

8. With reference to the Non-Aligned Movement (NAM) consider the following statements:

- 1. NAM was established in 1961 in Belgrade, Yugoslavia.
- 2. More than 100 countries are members of the NAM.
- 3. NAM does not have a permanent secretariat.

How many statements given above are correct?

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

9. Which of the following were NATO's founding member countries?

- 1. Canada
- 2. Denmark
- 3. Iceland
- 4. Greece
- 5. Luxembourg

Select the correct answer using the code given below:

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

10. Consider the following Indian States:

- 1. Arunachal Pradesh
- 2. Nagaland
- 3. Assam
- 4. Manipur
- 5. Tripura
- 6. Mizoram

Which of the above Indian states share the boundaries with Myanmar?

- (a) 1, 2, 4 and 6 only
- (b) 1, 2, 4, 5 and 6 only
- (c) 1, 4, 5 and 6 only
- (d) 1, 2, 3, 4, 5 and 6

- **11.** With reference to the India-Middle East-Europe Economic Corridor (IMEC), which of the following statements is/are correct?
 - 1. It aims to foster economic integration between Asia, the Arabian Gulf, and Europe.
 - 2. IMEC will boost India's National Logistics Policy 2022.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **12.** With reference to the World Trade Organisation (WTO), consider the following statements:
 - 1. It was founded in 1944 and headquartered in Geneva, Switzerland.
 - 2. More than 80 countries are members of the WTO.
 - 3. The Ministerial Conference is the WTO's top decision-making body.

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **13.** With reference to the *International Covenant on Civil and Political Rights (1966)*, consider the following statements:
 - 1. India is a signatory.
 - 2. It follows one of the provisions made in the Directive Principle of State Policy (DPSP) of the Indian Constitution.

Which of the statements given above is/are correct?

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

14. Consider the following statements

- 1. India shares the longest international boundary with Bangladesh.
- Bangladesh is India's biggest trade partner in South Asia .

Which 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.** The Mines Ministry has proposed sending an Indian industry delegation to Zambia to discuss potential copper exploration and mining projects.

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

- 1. Angola
- 2. Mozambique
- 3. Tanzania
- 4. Namibia
- 5. Zimbabwe

Select the correct answer using the code given below.

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

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

16. With reference to the Non-Aligned Movement (NAM), consider the following statements:

- 1. The theme of the 19th NAM summit was "Deepening Cooperation for Shared Global Affluence.".
- 2. At present, it consists of 120 States which account for about 60% of the United Nations membership.

Which 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. Operation Marg Bar Sarmachar was launched recently by which of the following countries?

- (a) Iran
- (b) Yemen
- (c) India
- (d) Pakistan

18. The term '1992 Consensus', sometimes appeared in the news, is in the context of:

- (a) Chinese and Taiwan
- (b) Iran and Pakistan
- (c) Israel and Syria
- (d) India and Maldives

19. With reference to the Chabahar port, consider the following statements:

- 1. It is located on the Gulf of Oman and is the only oceanic port of Iran.
- 2. It provides India with direct sea access to Afghanistan and Central Asia.

Which 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. Bahrain
- 2. Jordan
- 3. Iraq
- 4. Qatar
- 5. Yemen

Which of the above countries share its border with Saudi Arabia?

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

21. India has "special and privileged strategic partnership" with which of the following countries?

- (a) Russia
- (b) Israel
- (c) Japan
- (d) USA

22. Which among the following are bordering Nations of the Czech Republic?

1. Poland

- 2. Hungry
- 3. Germany
- 4. France

Select the correct answer using the code given below:

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

23. Consider the following statements with reference to the International Court of Justice(ICJ).

- 1. It is composed of 15 judges who are elected for terms of office of nine years.
- 2. It is headquartered in Geneva and the official languages are English and French.
- 3. It has jurisdiction to try individuals accused of crimes against humanity.

How many of the statements given above are correct?

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

24. With reference to the Panama Canal, consider the following statements:

- 1. One third of all global maritime commerce passes through it.
- 2. It is administered by the United States.

Which of the statements given above is/are correct?

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

25. With reference to the International Labour Organization, consider the following statements:

- 1. It was established in 1919 as part of the Treaty of Versailles that ended World War I.
- 2. "World of Work Report" is one of the major reports released by the organiosation.

Which 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. Which of the following countries shares borders with the Czech Republic?

- 1. France
- 2. Poland
- 3. Germany
- 4. Slovakia

Select the correct answer using the code given below:

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

27. Consider the following pairs

Region Related Country

- 1. Aigai
- Japan
- 2. Okinawa
- Greece

	7/411/411/411/411/41		100011
	3.	Belgorod Russia	
	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	
28.	India	shares maritime borders with many countries in its neighborhood?	
	(a)	5	
	(b)	6	
	(c)	7	
	(d)	8	

- **29.** A cargo ship carrying consignment from Chennai to Mombasa in Kenya via Colombo, is most likely to traverse the waters of which of the following countries in the Indian Ocean?
 - (a) Pakistan
 - (b) Bangladesh
 - (c) Yemen
 - (d) Maldives
- **30.** Which of the following group of countries borders the Red Sea?
 - (a) Egypt, Saudi Arabia, Jordan, Eritrea and Sudan
 - (b) Egypt, Saudi Arabia, Djibouti, Yemen, Eritrea and Sudan
 - (c) Eritrea, Ethiopia, Egypt, Saudi Arabia and Yemen
 - (d) Eritrea, Israel, Saudi Arabia, Sudan and Egypt
- 31. Operation Prosperity Guardian, recently seen in the news, is related to which of the following?
 - (a) A US led operation to flush out ISIS from Iraq.
 - (b) An evacuation mission of the Indian Navy in the Middle East.
 - (c) An India-US operation to counter China in the south china sea.
 - (d) To respond to Houthi-led attacks on shipping in the Red Sea.
- **32.** With reference to Mauritius, which of the following statements is/are correct?
 - 1. It is an island country in the Pacific Ocean.
 - 2. It is situated in the west of Madagascar.

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
- **33.** With reference to Guyana, which of the following statements is/are correct?
 - 1. The country is located in South America bordering the Atlantic Ocean.
 - 2. The Esseguibo River is the longest river in the country.

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
- **34.** Which of the following states of India shares a border with Nepal?
 - (a) Sikkim, West Bengal, and Bihar
 - (b) Uttar Pradesh, Himachal Pradesh and Uttarakhand
 - (c) Sikkim, Bihar and Jharkhand

- (d) Uttar Pradesh, Himachal Pradesh and Sikkim
- 35. Which of the following is not a primary function of the UN Statistical Commission?
 - (a) Setting international statistical standards
 - (b) Promoting the development of national statistical systems
 - (c) Coordinating statistical activities of the UN system
 - (d) Directly undertaking global censuses and surveys
- **36.** With reference to the Brazil, Russia, India, China, and South Africa (BRICS), consider the following statements:
 - 1. The grouping was formalized during the 1st meeting of BRIC Foreign Ministers on the margins of the UN General Assembly (UNGA) in 2006.
 - 2. South Africa was inducted in 2010 and from there on it has been referred to as BRICS.
 - 3. Argentina became a part of the group in 2023.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **37.** Which among the following countries have joined Brazil, Russia, India, China, and South Africa (BRICS) as new full members in 2023?
 - 1. Argentina
 - 2. Turkey
 - 3. Ethiopia
 - 4. Egypt
 - 5. Iran

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 2, 3 and 4 only
- (c) 3, 4 and 5 only
- (d) 1, 2, 3, 4 and 5.
- **38.** Indian National Centre for Ocean Information Services (INCOIS), an autonomous body, is under which of the following ministries?
 - (a) Ministry of Environment, Forest and Climate Change
 - (b) Ministry of Earth Sciences
 - (c) Ministry of Electronics and Information Technology
 - (d) Ministry of Science and Technology
- **39.** 'Houthi rebels', an armed group often seen in the news, belong to which country?
 - (a) Nigeria
 - (b) Yemen
 - (c) Chad
 - (d) Cameron
- **40.** Consider the following statements about MGNREGA:
 - 1. It guarantees 100 days of wage employment per year to rural households.
 - 2. It focuses exclusively on agricultural labor.
 - 3. It mandates equal wages for both men and women.

How many of the above statements are correct?

- (a) Only one
- (b) Only two

- (c) All three
- (d) None

41. With reference to the National Investigation Agency (NIA), consider the following statements:

- 1. It is a statutory body presently functioning as the Central Counter Terrorism Law Enforcement Agency in India.
- 2. It is in a concurrent jurisdiction framework under the Constitution of India.

Which of the statements given above is/are correct?

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

42. 'Operation Prosperity Guardian' was seen in the news recently, it is related to which of the following?

- (a) Child sex ratio
- (b) Monetary help to Disabled people
- (c) Addressing security challenges in the Red Sea
- (d) Tacking Piracy incidents across the Globe

EXPLANATIONS

1. (c)

Both the statements are correct.

News

- The US and eight other Western countries have suspended funding for the UNRWA.
 - These countries together provided more than half of UNRWA's 2022 budget.

What is UNRWA?

- UNRWA stands for UN Relief and Works Agency for Palestinian Refugees in the Near East.
- It was founded in 1949 after the Arab-Israeli war (1948).
- The UN agency operates in Gaza and the Israeli-occupied West Bank, as well as Lebanon, Syria, and Jordan.
- Currently, around 5.9 million Palestine refugees most of them are descendants of original refugees access the agency's services.
- UNRWA is funded almost entirely by voluntary contributions, mostly from government donors.

2. (c)

Both the Statements are correct.

News: The military regimes in Burkina Faso, Mali and Niger announced their immediate withdrawal from the West African bloc ECOWAS.

What is ECOWAS?

- It is a regional group established in **1975** through the **Lagos Treaty** with a mandate of promoting economic integration among its members.
- Members: Earlier it had 15 members i.e. Benin, Burkina Faso, Cabo Verde, Côte d' Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal and Togo. Now there are only 12 members.

• **Headquarters:** Abuja, Nigeria.

ECOWAS aims to have a single common currency and create a single, large trading bloc in areas of industry, transport, telecommunications, energy, financial issues, and social and cultural matters.

3. (d)

Both the statements are not correct.

- WHO is the **United Nations agency** that connects nations, partners and people to promote health, keep the world safe and serve the vulnerable so everyone, everywhere can attain the highest level of health.
- It was founded in 1948.
- Headquarters: Geneva Switzerland.

4. (a)

The Baltic Sea is an **arm of the North Atlantic Ocean**. It is bound by the **Scandinavian Peninsula**, the mainland of Northern Europe, Eastern Europe and Central Europe, and the Danish islands.

• Surrounded by countries: Denmark, Germany, Poland, Lithuania, Latvia, Estonia, Russia, Finland and Sweden.

5. (d)

• After World War II, Germany was divided into zones controlled by the Allied powers (United States, United Kingdom, France, and the Soviet Union). Berlin, the capital, was also divided into sectors. In 1948, the Soviet Union blockaded West Berlin in an attempt to force the Allies out of the city. In response to the blockade, the Western Allies organized the Berlin Airlift, a massive humanitarian effort to supply West Berlin with food, fuel, and other essentials by air. By the end of the blockade, the North Atlantic Treaty Organization had been established, partially in response to Soviet aggression.

6. (b)

Statement 1 is not correct: The Group of 77 refers to the **largest intergovernmental group** of emerging countries in the United Nations.

• It was established in **1964** by **seventy-seven developing countries** at the end of the first session of the United Nations Conference on Trade and Development (UNCTAD) in **Geneva**.

Statement 2 is correct: Charter: The Group of 77 is guided by the **Charter of Algiers,** which acts as its institutional structure.

• The Annual Meeting of the Ministers for Foreign Affairs of the Group of 77 is convened at the beginning of the regular session of the General Assembly of the United Nations in New York.

7. (b)

Pakistan and Afghanistan

- Torkham Crossing is a crucial border crossing that links Pakistan and Afghanistan. Its strategic location makes it a vital entry point for trade and connectivity between the two nations.
- The Border road is a key lifeline for a landlocked Afghanistan, linking the northwestern Pakistani city of Peshawar to Jalalabad, the main city in Nangarhar, and the route onwards to the capital Kabul.

8. (c)

All the Statements are Correct.

What is Non-Aligned Movement (NAM)?

• NAM is an alliance of developing nations that refuses to identify with any major superpower during the Cold War.

- **History:** It has its origins in the 1955 **Bandung conference** in Indonesia during which representatives from 29 Asian and African countries, including many newly independent states that had been colonized for years, discussed common concerns.
- NAM was established and held its first conference in 1961 in Belgrade, the capital of Yugoslavia.
- Founders: The movement's founders are President Sukarno of Indonesia, Prime Minister Jawaharlal Nehru of India, Gamal Abdel Nasser of Egypt, Kwame Nkrumah of Ghana, and President Josip Tito of Yugoslavia.
- Secretariat: NAM does not have a permanent secretariat or a formal founding charter, act, or treaty. After the United Nations, NAM is the second-largest grouping of nations.
- Members: Currently, NAM membership consists of **120 countries**: 53 from Africa, 39 from Asia, 26 from Latin America and the Caribbean, and two from Europe. It also includes the non-UN member state of Palestine, and 17 other observer countries.

9. (a)

In News : Turkey's parliament ratified Sweden's North Atlantic Treaty Organization (NATO) membership bid.

NATO was formed in 1949 with the signing of the Washington Treaty.

- NATO's founding member countries were: Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom and the United States.
- Its purpose is to guarantee the freedom and security of its members through political and military means.

[Note: Greece joined NATO in 1952]

10. (a)

India and Myanmar:

- Both countries share a largely unfenced 1,643 km border, which goes through the states of Arunachal Pradesh (520 km), Nagaland (215 km), Manipur (398 km) and Mizoram (510 km).
 - They also share a maritime boundary in the Bay of Bengal.



11. (c)

Both the Statements are correct.

India-Middle East-Europe Economic Corridor (IMEC)

• The IMEC is a planned economic corridor that aims to bolster economic development (manufacturing, food security, and supply chains) by fostering connectivity and economic integration between Asia, the Arabian Gulf, and Europe.

Components of the IMEC

- The project would involve the **building of a railway line** across the Arabian Peninsula through the United Arab Emirates and Saudi Arabia and develop shipping connectivity to India and Europe on either end of this corridor.
- The corridor could be further developed to transport energy through pipelines and data through an optical fiber link.
- The connectivity project will boost India's National Logistics Policy 2022.

12. (b)

Statement 1 is not correct and Statement 2 and 3 are correct. World Trade Organization (WTO)

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

WTO's Ministerial Conference

- The Ministerial Conference is the WTO's top decision-making body. It usually meets every two years.
- All members of the WTO are involved in the Ministerial Conference and they can take decisions on all matters covered under any multilateral trade agreements.

13. (c)

Statement 1 is correct: The International Covenant on Civil and Political Rights (1966): Article 17 says that 'no one shall be subjected to arbitrary or unlawful interference with his privacy, family, home, and correspondence nor unlawful attacks on his honour and reputation'.

• India is a signatory and party to the International Covenant on Civil and Political Rights.

Statement 2 is correct: According to Article 51(c) of the Constitution (DPSP), international conventions must be respected unless they conflict with domestic laws.

14. (c)

In News: Prime Minister Sheikh Hasina returned to power in Bangladesh for a historic fourth straight term after her party, the Awami League, secured two-thirds of the seats in the national elections.

Statements 1 and 2 are correct : Bangladesh, as India's immediate neighbour in the East, plays a crucial role in its strategic plans. Sharing 54 rivers and a 4,096-km border, the India-Bangladesh border is the **longest land boundary India has with any of its neighbours.**

- Bangladesh has emerged as **India's largest trade partner in South Asia**, with bilateral trade reaching \$18 billion in 2021-2022 from \$10.8 billion in 2020-21, though there was a dip in 2022-23 due to the pandemic and the Russia-Ukraine war.
- o India is also the **second biggest trade partner of Banglades**h, with exports amounting to \$2 billion in Indian markets.

15. (d)

Zambia is a large, landlocked, resource-rich country with sparsely populated land in the centre of Southern Africa.

• Lusaka is the capital city of the Republic of Zambia. It shares its border with eight countries (Angola, Botswana, Democratic Republic of Congo, Malawi, Mozambique, Namibia, Tanzania, and Zimbabwe) that expands its regional market for goods and services.



16. (c)

Both the Statements are correct.

News: External Affairs Minister, Dr. S. Jaishankar led the Indian delegation at the 19th Summit of the Non-Aligned Movement (NAM) in Kampala (the capital of Uganda). The **theme** of the 19th NAM summit was - "Deepening Cooperation for Shared Global Affluence."

Non-Aligned Movement (NAM)

- NAM was founded in 1961 by Egypt, Ghana, India, Indonesia and Yugoslavia with the view to advancing the interests of developing countries in the context of Cold War confrontation.
- At present, the NAM consists of **120 States which account for about 60%** of the United Nations membership.

17. (d)

Option d is correct.

News: Pakistan has launched missile strikes into Iran under **Operation Marg Bar Sarmachar** (Death to Insurgents), following Iran's missile strikes in Pakistan.

About

- Baloch insurgency has been a source of tension, with the two countries accusing each other of harbouring and supporting terrorists.
- Before the 1979 Islamic Revolution in Iran, both countries were firmly allied to the United States and in 1955, joined the Baghdad Pact, later known as the Central Treaty Organization (CENTO).
- When Ayatollah Khomeini's ultra-conservative Shiite regime took power in Iran, Sunni-majority Pakistan was undergoing its own Islamisation under military dictator Gen Zia-ul-Haq and the two countries found themselves at opposite ends of the sectarian divide.

18. (a)

'One China' Policy:

- It affirms Chinese sovereignty over Taiwan. It acknowledges that there is 'One China' (1992 Consensus).
- Under this policy, any country that wants to establish political and diplomatic relations with China must agree to adhere to this principle and not recognise Taiwan as an independent country.
- In practice, the 'One China' principle is a stabilisation mechanism that preserves the status quo over Taiwan's political status while allowing it to function as an independent economic, civic and administrative entity.

19. (c)

Both the statements are correct: Iran's Chabahar port is located on the Gulf of Oman and is the only oceanic port of the country.

- Geopolitical Significance: Chabahar Port is strategically located at the crossroads of South Asia, Central Asia, and the Middle East. It provides India with direct sea access to Afghanistan and Central Asia, bypassing Pakistan.
- India can bypass Pakistan in transporting goods to Afghanistan.

20. (d)

The Kingdom of Saudi Arabia is the largest Arab country of the Middle East.

- It is bordered by:
 - Jordan and Iraq in the north and northeast;
 - Kuwait, Qatar, Bahrain and the United Arab Emirates in the east;
 - o Oman in the southeast; and
 - Yemen in the south.



India-Russia relations:

- Prime Minister Narendra Modi and Russian President Vladimir Putin recently had a conversation related to the "special and privileged strategic partnership" between the two countries.
- In 2000, both countries signed a "Declaration on the India-Russia Strategic Partnership," which was upgraded to "special and privileged strategic partnership" in 2010.





The Czech Republic is a landlocked country in Central Europe.

- It is bordered by **Poland** to the north, **Germany** to the west, **Austria** to the south and **Slovakia** to the east.
- Its capital and largest city is Prague.



23. (a)

In News: Judges at the International Court of Justice opened two days of legal arguments in a case filed by **South Africa** accusing Israel of **genocide in Gaza war.**

Statement 1 is correct: International Court of Justice(ICJ) is the principal judicial organ of the United Nations. The Court is composed of **15 judges**, who are elected for terms of office of nine years by the United Nations General Assembly and the Security Council.

Statements 2 and 3 are not correct: It was established by the **United Nations Charter**, which was signed in 1945 in San Francisco (United States), and began work in **1946 in the Peace Palace, The Hague (Netherlands).**

- Its official languages are English and French.
- The International Court of Justice has no jurisdiction to try individuals accused of war crimes or crimes against humanity.
- As it is not a criminal court, it does not have a prosecutor able to initiate proceedings.

24. (d)

Both the statements are not correct: The Panama Canal has a length of approximately 80 kilometers that connects the Atlantic Ocean with the Pacific Ocean.

- Around **six percent of all global maritime commerce** passes through the Panama Canal, with the United States, China and Japan being the leading users.
- The canal was completed in 1914 by the United States.
- The US continued to control the canal and surrounding Panama Canal Zone until the Torrijos—Carter Treaties provided for its handover to Panama in 1977.
- After a period of joint American—Panamanian control, the canal was taken over by the Panamanian government in 1999. It is now managed and operated by the **Panamanian government**-owned Panama Canal Authority.

25. (c)

Both the statements are correct: About International Labour Organization

- It is an United Nations Agency established in 1919 as part of the Treaty of Versailles that ended World War I, and it became the first specialized agency of the UN in 1946.
- It has 187 Member states.

- It sets labour standards, develops policies and devises programmes promoting decent work for all women and men.
- It is headquartered in Geneva, Switzerland.
- Major Reports: World Employment and Social Outlook (WESO), Global Wage Report, World Social Protection Report, World Employment and Social Outlook for Youth, World of Work Report.

26. (b)

In News: India signed bilateral cooperation agreements with the Czech Republic at the Vibrant Gujarat summit.

- The Czech Republic is a landlocked country in Central Europe.
- It is bordered by **Poland** to the north, **Germany** to the west, **Austria** to the south and **Slovakia** to the east.



27. (a)

Pairs 1 and 2 are incorrectly matched: The ancient Palace of Aigai reopened after a 16-year absence.

- The city of Aigai was the ancient first capital of the Kingdom of Macedonia.
- It was discovered in the 19th century near Vergina, in northern **Greece**.

Okinawa Prefecture is located in the eastern part of the Asian continent

- It is the southwestern most point of the Japanese archipelago.
- It is located between Taiwan and Kyushu, the southwestern-most of Japan's four main islands.

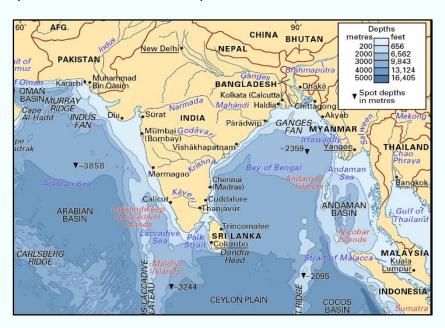
Pair 3 is correctly matched :; Belgorod Region is situated in the centre of the European part of **Russia**, on the southern and southeastern slopes of the Central Russian Upland.

28. (c)

India is naturally a maritime nation with a coast line of over 7500 kms.

- OIndia's maritime boundaries is shared with seven countries —
- Pakistan
- Maldives
- Sri Lanka
- Indonesia
- Thailand
- Myanmar and
- Bangladesh.

29. (d)



A cargo ship carrying consignment from Chennai in Tamil Nadu, India to Mombasa in Kenya via Colombo, is most likely to traverse the waters of **Maldives** in the Indian Ocean.

30. (b)

The Red Sea is bordered by six countries:

- Eastern shore: Saudi Arabia and Yemen
- Western shore: Egypt, Sudan, Eritrea, and Djibouti



31. (d)

Operation Prosperity Guardian:

- Operation Prosperity Guardian is a **US-led, multinational military operation** established in December 2023 to **respond to Houthi-led attacks on shipping in the Red Sea.**
- Objectives:
 - o To ensure the safety of maritime traffic in the **Red Sea**, **Bab al-Mandeb**, **and Gulf of Aden**.
 - To **counter threats by Houthi forces** against international maritime commerce.
 - o To **de-escalate tension**s in the region and promote stability.

32. (d)

Both the statements are not correct.

Mauritius

- Mauritius, is an island country in the **Indian Ocean**, located off the eastern coast of Africa. It is a part of the **Mascarene Islands**.
- Capital: Port Louis
- Major rivers: Grand River South East and Black River.
- Lake Vacoas, is one of the main reservoirs, and is the chief source of water.



33. (c)

Both the statements are correct.

Guyana

- Location: Guyana, is located in the northeastern corner of South America.
- Bordering Nations: Guyana is bordered by the Atlantic Ocean to the north, by Suriname (along the Courantyne River) to the east, by Brazil to the south and southwest, and by Venezuela to the west.
- Major rivers: Courantyne, Berbice, Demerara, and Essequibo.
 - o **Essequibo** is the longest river in the country.
- Oil reserves: Guyana has gained significant salience in the oil & gas sector with the new discoveries of 11.2 billion barrels of oil equivalent, amounts to 18% of total global Oil & Gas discoveries.



34. (a)

Sikkim, West Bengal, and Bihar

Shared Border

• Nepal shares a border of over **1,850 km with five Indian states - Sikkim, West Bengal, Bihar, Uttar Pradesh and Uttarakhand.**

35. (d)

About the UN Statistical Commission:

- Established in: 1946.
 - It is the **highest body of the global statistical system** bringing together the **Chief Statisticians** from member states from around the world.

- It is a functional commission of the UN Economic and Social Council (ECOSOC), and serves as the highest decision-making body for international statistical activities.
- Functions:
 - Setting statistical standards: Establishing frameworks and guidelines to ensure consistency and comparability of global statistics.
 - o **Promoting the Developing national statistical systems:** Providing support and guidance to countries in strengthening their data collection and analysis capabilities.
 - O Coordinating statistical activities: Overseeing and harmonizing statistical work across UN agencies and international organizations.
- It does not directly conduct field operations like censuses or surveys.

36. (b)

Statement 1 and 2 are correct: BRICS is an acronym that refers to a group of five major emerging national economies: **Brazil, Russia, India, China, and South Africa.**

- Origin: As a formal grouping, BRIC started after the meeting of the Leaders of Russia, India and China in St. Petersburg on the margins of the **G8 Outreach Summit in 2006.**
 - The grouping was formalized during the 1st meeting of BRIC Foreign Ministers on the margins of **UNGA** in **New York** in **2006**.
 - o The success of the meet led to the crystallisation of an annual summit under the aegis of BRIC.
 - o Initially, the grouping was termed BRIC as **South Africa was inducted in 2010** and from there on it has been referred to as **BRICS**.

Statement 3 is not correct: Egypt, Ethiopia, Iran, Saudi Arabia, and the United Arab Emirates have joined BRICS as new full members.

- It was done as per the decision adopted by the 15th BRICS Summit in 2022.
- A proposal to admit six countries, including Argentina, into the bloc with effect from January 1.
- Argentina's new President announced withdrawing his country from becoming a member of the BRICS.

37. (c)

Egypt, Ethiopia, Iran, Saudi Arabia, and the United Arab Emirates have joined BRICS as new full members.

- It was done as per the decision adopted by the 15th BRICS Summit in 2022.
- A proposal to admit six countries, including Argentina, into the bloc with effect from January 1.
- Argentina's new President announced withdrawing his country from becoming a member of the BRICS.

38. (b)

Ministry of Earth Sciences

Indian National Centre for Ocean Information Services (INCOIS)

- INCOIS is an **autonomous body** under the **Ministry of Earth Sciences (MoES)** and is a unit of the **Earth System Science Organisation (ESSO)**.
- ESSO-INCOIS was established in 1999 under the Ministry of Earth Sciences (MoES) and is located in Hyderabad.
- Indian Tsunami Early Warning Centre (ITEWC) is also housed in the INCOIS.

39. (b)

The Houthis are an armed group from a sub-sect of Yemen's Shia Muslim minority, the Zaidis.

- They take their name from the movement's founder, Hussein al Houthi.
- The group was formed in the 1990s to combat what they saw as the corruption of the thenpresident, Ali Abdullah Saleh.

• The Houthi rebels have been fighting a civil war since 2014 against Yemen's government. The government has been backed against the Houthis by a coalition of Arab countries led by Saudi Arabia and the UAE.

40. (b)

Statement 2 is not correct.

About MGNREGA:

- Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) 2005, is a **flagship scheme** aimed at providing **employment opportunities to the rural poor.**
- Key Provisions:
 - Employment guarantee: MGNREGA guarantees 100 days of employment to every rural household in a financial year.
 - Time-Bound Guarantee of Work: Employment must be provided within 15 days of being demanded to fail which an 'unemployment allowance' must be given.
 - o MGNREGA offers work in various sectors beyond agriculture, including rural infrastructure development, water conservation, and forestry.
 - o **Equal wages for both men and women:** MGNREGA ensures equal wages for both men and women for the same type of work, promoting gender equality in the rural workforce.

41. (c)

Statement 1 is correct:

Institutional Establishment of NIA:

- The Union government enacted the National Investigation Agency (NIA) Act on 31-12-08, and it is presently functioning as the Central Counter Terrorism Law Enforcement Agency in India.
- Union Territories and other law enforcement agencies in compliance with the legal provisions of the NIA Act.

Statement 2 is correct:

- The Union government proposed to enact a legislation to make provisions for establishment of a
 National Investigation Agency (NIA) in a concurrent jurisdiction framework, with provisions for taking
 up specific cases under specific Acts for investigation.
- 42.(c)

It is a new joint military operation aimed at addressing security challenges in the southern Red Sea and the Gulf of Aden, with the goal of ensuring freedom of navigation for all countries and bolstering regional security and prosperity. It was announced by the US in the wake of a Houthi militant assault on commercial shipping.

SCIENCE & TECHNOLOGYRE

- **1.** With reference to the E Ink Displays, consider the following statements:
 - 1. E Ink displays are a special type of screen technology often used in e-readers like the Amazon Kindle.
 - 2. They use backlight to reflect light making them easier on the eyes for long reading sessions.

Which 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.** Electronic Nicotine Delivery Systems (ENDS), recently seen in the news, is related to which of the following?
 - (a) A radioactive treatment designed to treat cancer.
 - (b) An alternative designed to simulate the act of smoking tobacco.
 - (c) A nanobot used to deliver key drugs in the body.
 - (d) An e-fuel used in electric vehicles.
- **3.** Consider the following pairs:

ISRO Centre	City
Vikram Sarabhai Space Centre(VSSC)	Chennai
Satish Dhawan Space Centre (SDSC)	Nellore
Space Applications Centre (SAC)	Ahmedabad
IN-SPACe	Bengaluru

How many pairs given above are correctly matched?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- **4.** Consider the following statements:
 - 1. Lethal Injection and Nitrogen Hypoxia are among the methods of execution.
 - 2. Capital punishment is not legal 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
- 5. Imagine you're an astronaut on a mission to Lagrange Point 1 (L1). Which of the following experiences would you most like to have?

- (a) You would feel a stronger gravitational pull from the Sun than from the Earth, because L1 is closer to the Sun.
- (b) You would be able to maintain your position relative to the Earth and the Sun without using much fuel.
- (c) You would see the dark side of the Earth, because L1 is located on the line connecting the Earth and the Sun.
- (d) You would not need to perform regular course and attitude corrections, because L1 is stable.
- **6.** The 'three-drug regimen' of dapsone, rifampicin and clofazimine, recently approved by the Government of India for which of the following diseases?
 - (a) Malaria
 - (b) Leprosy
 - (c) Tuberculosis
 - (d) HIV-AIDS
- 7. With reference to Malaria disease, which of the following statements is/are correct?
 - 1. It is caused by a virus which spreads through the bites of infected female Anopheles mosquitoes.
 - 2. Currently there is no vaccine available that can prevent the disease.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 8. RTS,S and R21 vaccines, recently seen in the news, is related to which of the following diseases?
 - (a) HIV-AIDS
 - (b) Pneumonia
 - (c) Typhoid
 - (d) Malaria
- **9.** The 'Wright Brothers Moment', sometimes appeared in the news, is in the context of:
 - (a) The invention of jet engine
 - (b) Exploration of Mars
 - (c) First domestic flight in the United States
 - (d) Exploration of Moon
- **10.** The Mpemba effect caught scientists' attention recently, it is related to:
 - (a) Simple way of calculating basic multiplication and square roots
 - (b) Hot water can freeze faster than cold water in similar conditions.
 - (c) The organisms best adapted to the environment are more likely to reproduce.
 - (d) Involves scattering of light by molecules of gases, liquids, or solids
- 11. With reference to the Scrub typhus , which of the following statements is/are correct?
 - 1. Scrub typhus is a disease caused by a Virus called Orientia tsutsugamushi.
 - 2. The disease spread to people through the bites of infected larval mites.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 12. Al Governance Alliance (AIGA), was launched by which of the following organisations?
 - (a) World Economic Forum (WEF)
 - (b) World Bank

- (c) European Union (EU)
- (d) World Health Organisation (WHO)
- **13.** 'Smart Lander for Investigating Moon (SLIM)' was recently launched by which one of the following countries?
 - (a) India
 - (b) Japan
 - (c) USA
 - (d) China
- **14.** With reference to the Quantum Technology, consider the following statements:
 - 1. It uses the principles of quantum mechanics to develop new technologies with unprecedented capabilities.
 - 2. It uses Quantum mechanisms such as superposition and entanglement.

Which 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.** India's first graphene centre, India Innovation Centre for Graphene (IICG), has been established recently in which of the following states?
 - (a) Gujarat
 - (b) Kerala
 - (c) Maharashtra
 - (d) Uttar Pradesh
- **16.** Recently the Einstein Probe (EP), a new astronomical satellite was launched for the observation of cosmic phenomena like black holes, colliding neutron stars, and exploding stars. It is related to which of the following countries?
 - (a) USA
 - (b) India
 - (c) China
 - (d) Japan
- **17.** Which one of the following will comprise the Lithium Triangle?
 - (a) Argentina, Brazil and Chile
 - (b) Ecuador, Brazil and Peru
 - (c) Argentina, Bolivia and Chile
 - (d) Ecuador, Bolivia and Colombia
- **18.** With reference to the Light-emitting diodes (LEDs), which of the following statements is/are correct?
 - 1. LEDs have lower energy efficiency than fluorescent lamps.
 - 2. LEDs have a longer Lifespan than fluorescent lamps.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **19.** Consider the following statements:
 - 1. Developed jointly by ISRO and JAXA, NISAR is a synthetic aperture radar (SAR) satellite for an Earth-observing mission.

- 2. NISAR will operate in L-band and S-band frequencies, providing all-weather and day-night imaging capabilities.
- 3. NISAR's primary aim is to study volcanoes, earthquakes and tsunamis.
- 4. NISAR will also contribute to shed light on the dynamics of sea ice near both poles.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) All four
- 20. Human papillomavirus (HPV) can lead to the development of which of the following diseases?
 - (a) Cervical cancer
 - (b) Oral cancer
 - (c) Penile cancer
 - (d) All of the above
- 21. Thirty Meter Telescope (TMT) project, is a joint collaboration among which of the following countries?
 - (a) US, Japan, China, Canada, and India
 - (b) India, EU, China and Japan
 - (c) US, Japan, Australia, Canada, and India
 - (d) US, Russia, China, Canada, and India
- **22.** With reference to the Square Kilometre Array Observatory (SKAO), consider the following statements:
 - 1. It is a Joint project between the Indian Space Research Organisation (ISRO) and the European Space Agency (ESA).
 - 2. It consists of the two telescopes at radio-quiet sites in India and Germany.
 - 3. India will contribute in the development and operation of the Telescope Manager element, the "neural network".

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 23. Consider the following statements with reference to Einstein Probe (EP).
 - 1. It is an astronomical satellite launched by Japan Aerospace Exploration Agency (JAXA).
 - 2. It aims to scrutinise Saturn and its extensive system of moons.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 24. With reference to the Polygraph Test, which of the following statements is/are correct?
 - 1. It is a lie detector test based on the physiological responses of a person.
 - 2. The results of the tests cannot be considered to be confessions.

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

- **25.** Which one of the following countries participated in the recently launched *'PRITHVI' Programme* along with India?
 - (a) Singapore
 - (b) Mauritius
 - (c) Philippines
 - (d) Seychelles
- 26. With reference to the Aditya-L1 mission, which of the following statements is/are correct?
 - 1. The spacecraft will enter the corona of the Sun to understand the phenomenon of coronal mass ejection.
 - 2. It carries the Solar Ultraviolet Imaging Telescope (SUIT) to focus upon the Photosphere and Chromosphere of the Sun.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 27. With reference to the Aditya-L1 mission, which of the following statements is/are correct?
 - 1. It is the first space-based Indian observatory to study the Sun.
 - 2. The spacecraft will be placed in a halo orbit around Lagrange point 1.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **28.** With reference to the Square Kilometre Array Observatory (SKAO), consider the following statements:
 - 1. It is a Joint project between ISRO and NASA.
 - 2. It consists of the two telescopes at radio-quiet sites in South Africa and Australia.
 - 3. India will contribute in the development and operation of the Telescope Manager element, the "neural network".

How many statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **29.** With reference to the Giant Metrewave Radio Telescope (GMRT), which of the following statements is/are correct?
 - 1. It operates within the 110-1,460 MegaHertz frequency range.
 - 2. It was among the top radio telescopes that detected the nano-hertz gravitational waves for the first time.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **30.** With reference to the Radiocarbon Dating, consider the following statements:
 - 1. It is a scientific method that can accurately determine the age of organic materials.
 - 2. Scientists estimate the age by measuring cosmic rays absorbed by dead organisms.

Which of the statements given above is/are correct?

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

EXPLANATIONS

1. (a)

Statement 1 is correct: E Ink displays are a special type of screen technology often used in **e-readers like the Amazon Kindle.**

• The technology was originally developed in the **1990s** at MIT and is now owned **by E Ink Corporation.**

Statement 2 is not correct: Unlike LCD and LED displays that use a backlight, E Ink displays reflect light – just like paper.

• This makes them **easier on the eyes** for long reading sessions.

2. (b)

E-cigarettes:

- E-cigarettes are electronic devices designed to simulate the act of smoking tobacco cigarettes.
- They are also called "e-cigs," "vapes," "e-hookahs," "vape pens," and "Electronic Nicotine Delivery Systems (ENDS)."
- Contain a heating element that vaporizes a liquid (e-liquid) which typically includes nicotine, flavorings, and other chemicals.
- Come in various forms, including pens, mods, tanks, and pod systems.
- Vaping is the act of inhaling and exhaling the aerosol produced by an e-cigarette.

3. (b)

- Pairs 1 and 4 are not correct.
- ISRO Centres & Units

Sl. No.	DoS Centers/ Units	Location
1.	Department of Space and ISRO HQ	Bengaluru
2.	Human Space Flight Centre (HSFC)	Bengaluru
3.	Indian Institute of Remote Sensing (IIRS)	DehraDun
4.	ISRO Inertial Systems Unit (IISU)	Thiruvananthapuram
5.	ISRO Propulsion Complex (IPRC)	Mahendragiri
6.	ISRO Telemetry, Tracking and Command Network (ISTRAC)	Bengaluru
7-	Laboratory for Electro-Optics Systems (LEOS)	Bengaluru
8.	Liquid Propulsion Systems Centre(LPSC)	Thiruvananthapuram
9.	Master Control Facility (MCF)	Hassan
10.	National Remote Sensing Centre (NRSC)	Hyderabad
11.	Satish Dhawan Space Centre (SDSC) SHAR	Nellore
12.	Space Applications Centre (SAC)	Ahmedabad
13.	U R Rao Satellite Centre (URSC)	Bengaluru
14.	Vikram Sarabhai Space Centre(VSSC)	Thiruvananthapuram

IN-SPACe

Sl. No.	DoS Centers/ Units	Location
1.	IN-SPACe	Ahmedabad

CPSEs

Sl. No.	DoS Centers/ Units	Location
1.	Antrix Corporation Limited	Bengaluru
2.	NewSpace India Limited (NSIL)	Bengaluru

Autonomous bodies

Sl. No.	DoS Centers/ Units	Location
1.	Indian Institute of Space Science and Technology (IIST)	Thiruvananthapuram
2.	National Atmospheric Research Laboratory (NARL)	Tirupathi
3.	North Eastern-Space Applications Centre (NE-SAC)	Ri Bhoi District
4.	Physical Research Laboratory (PRL)	Ahmedabad

4. (a)

Statement 1 is correct: The US state of Alabama carried out the execution of a convicted murderer using nitrogen gas.

- In a nitrogen gas execution, the individual is confined within a sealed chamber.
- Nitrogen gas is introduced into the chamber, gradually replacing the oxygen.
- An inmate is deprived of oxygen until he/she breathes only nitrogen, causing asphyxiation.
- Lethal injection involves **injecting drugs** that sedate and kill the inmate, and has been the preferred method.

Statement 2 is not correct: Capital punishment **is legal** in India, and it is retained for certain types of heinous crimes.

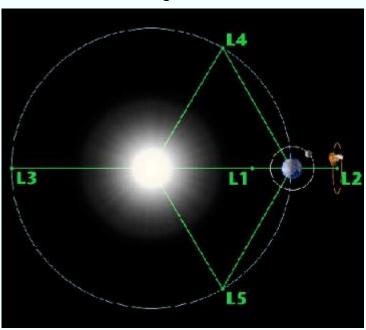
• It is prescribed under the **Indian Penal Code** and other special laws.

5. (b)

You would be able to maintain your position relative to the Earth and the Sun without using much fuel. Lagrange point 1:

- Lagrange points are named in honor of Italian-French mathematician Josephy-Louis Lagrange.
- L1 stands for the **first Lagrangian point** there are five such points, L1 to L5, associated with the motion of one astronomical body around another one, in **Aditya missions's case, Earth and the Sun**.

- Of the five Lagrange points, three are unstable and two are stable. The unstable Lagrange points labeled L1, L2 and L3 lie along the line connecting the two large masses. The stable Lagrange points L4 and L5 form the apex of two equilateral triangles that have the large masses at their vertices. L4 leads the orbit of earth and L5 follows.
- If one is at L1, then he would be **able to maintain his position with minimal fuel usage**, but would need to perform regular course and attitude corrections due to the instability of L1.
 - The L1 and L2 points are unstable on a time scale of approximately 23 days, which requires satellites orbiting these positions to undergo regular course and attitude corrections.
- He would **not feel a stronger gravitational pull** from the Sun, and he would always see the sunlit part of the Earth, as seen from the below figure.



6. (b)

The Central government has approved a **new treatment regimen for leprosy**, aiming to stop its transmission at the sub-national level **by 2027**.

Three-drug regimen:

- The WHO has recommended this treatment regimen in 2015.
- It consists of three drugs *dapsone, rifampicin and clofazimine*. The combination is referred to as **MDT** (multidrug therapy). MDT kills the pathogen and cures the patient.
- This regimen is known as 'Uniform MDT', where a single three-pack kit can be given to all leprosy patients. This measure facilitates ease of administration.
- The duration of treatment is six months for PB and 12 months for MB cases.

7. (d)

Both the Statements are not correct.

- Malaria is a life-threatening disease spread to humans by some types of mosquitoes. It is mostly found in tropical countries.
- **Transmission:** It is caused by **plasmodium protozoa.** The plasmodium parasites spread through the bites of infected female Anopheles mosquitoes. Blood transfusion and contaminated needles may also transmit malaria.
- The **R21/Matrix-M malaria vaccine** has been recommended for use by the World Health Organisation (WHO) after meeting required safety, quality and effectiveness standards.

- Types of parasites: There are 5 Plasmodium parasite species that cause malaria in humans and 2 of these species P. falciparum and P. vivax pose the greatest threat. The other malaria species which can infect humans are P. malariae, P. ovale and P. knowlesi.
- The vaccine has been developed by the **University of Oxford and the Serum Institute of India**, leveraging Novavax's adjuvant technology.
- The R21 vaccine is the second malaria vaccine recommended by WHO, following the RTS,S/AS01 vaccine, which received a WHO recommendation in 2021.

8. (d)

About the anti-malaria vaccines:

- The RTS,S/AS01, commercially known as Mosquirix and R21/Matrix-M vaccines act against P. falciparum, the deadliest malaria parasite and the most prevalent on the African continent.
- In 2021, WHO licensed RTS,S/AS01, commercially known as Mosquirix, for children in sub-Saharan Africa with moderate-to-high *Plasmodium falciparum* malaria transmission.
- The second one is the R21/Matrix-M malaria vaccine licensed for use in Ghana, Nigeria and Burkina Faso by WHO in 2023.

9. (b)

Mars Ingenuity Helicopter: It is a small robotic chopper and the first aircraft to make a powered, controlled flight sent to Mars on an experimental basis.

- o It has been called a 'Wright Brothers moment'.
- It flies in Mars' thin atmosphere, which isn't conducive for flying.
- It operates autonomously.
 - o It uses **solar power** to charge its batteries and relies on internal heaters to maintain operational temperatures during the cold Martian nights.
- It paves the way for **future aerial explorers** at Mars and, potentially, other space destinations.

10. (b)

<u>Mpemba effect</u> is named after **Tanzanian** student **Erasto Mpemb**a, who brought attention to this counterintuitive **phenomenon** in 1969.

- o Aristotle, Francis Bacon, and René Descartes had noticed the effect centuries earlier.
- The effect is that **hot water can freeze faster** than **cold water in similar conditions.**

11. (b)

Statement 1 is not Correct and Statements 2 is correct.

What is Scrub typhus?

- It is an infectious disease caused by **bacteria** called **Orientia tsutsugamushi** and transmitted through infected **mites (chiggers).**
- Symptoms: It include fever, headache, body ache and sometimes a rash.
 - o In severe cases, the infection can lead to respiratory distress, brain and lung inflammation, kidney failure and multi-organ failure, ultimately resulting in death.
- Causes: Mites carrying the disease are generally found in the bush, jungle and paddy areas.
 Several factors, like exposure to farming, owning domestic animals, outdoor activities and sanitation, affect its prevalence.
- Diagnosis: Elisa test is used to diagnose the disease.

12. (a)

The World Economic Forum launched the AI Governance Alliance in 2023.

• It is a dedicated initiative focused on responsible generative artificial intelligence (AI).

• It is a union of industry leaders, governments, academic institutions, and civil society organizations to champion **responsible global design** and release of transparent and inclusive AI systems.

13. (b)

Recently, Japan became the fifth country in history to reach the moon when one of its spacecraft without astronauts successfully made a soft landing on the lunar surface recently.

- Japan follows the United States, the Soviet Union, China and India in reaching the moon.
- Japan's moon lander, **Smart Lander for Investigating Moon (SLIM)**, was launched as planned and that data was being transmitted back to the earth.

Smart Lander for Investigating Moon (SLIM):

- SLIM is a lightweight spacecraft about the size of a passenger vehicle which was aiming to hit a
 very small target.
 - O While most previous probes have used landing zones about 10 kilometers (six miles) wide, SLIM was aiming at a target of just 100 meters (330 feet).
 - o The SLIM, equipped with a pad each on its five legs to cushion impact, was **aiming to land near the Shioli crater,** near a region covered in volcanic rock.

14. (c)

Both the statements are correct: Quantum technology is a rapidly advancing field that leverages the **principles of quantum mechanics** to develop new technologies with unprecedented capabilities.

- Quantum mechanics is the branch of physics that studies the behavior of particles at the quantum level, where classical physics no longer applies.
- Quantum technology harnesses the unique properties of quantum systems, such as superposition
 and entanglement, to perform tasks that were previously thought impossible or significantly
 enhance existing capabilities

15. (b)

About the first graphene centre:

- The first graphene centre in the country, **India Innovation Centre for Graphene (IICG)**, has been established at **Makers Village Kochi (Kerala)**.
- It was jointly established by the **Ministry of Electronics and Information Technology**, Union Government and **Government of Kerala along with Tata Steel Ltd.**
- Aim: To foster research and development, product innovation and capacity building in the area of graphene and 2D material systems.

16. (c)

Recently, **China** launched the Einstein Probe (EP), a new astronomical satellite, for the observation of cosmic phenomena like black holes, colliding neutron stars, and exploding stars.

<u>About</u>

- The probe is named after Einstein for his theory of general relativity on black holes and gravitational waves.
- The probe will be used to search for X-ray signals accompanying gravitational wave events around the celestial bodies and to pinpoint them.
- The Einstein Probe was launched using the "Long March-2C carrier rocket".
- The satellite is shaped like a lotus in full bloom. The lotus-inspired design incorporates 12 'petals' housing wide-field X-ray telescopes (WXT) and two 'stamens' containing follow-up X-ray telescopes (FXT).

International Collaboration

• Einstein Probe is a collaboration led by the **Chinese Academy of Sciences (CAS)** with the European Space Agency (ESA) and the Max Planck Institute for Extraterrestrial Physics (MPE), Germany.

17. (c)

Argentina, Bolivia and Chile

- Lithium is a chemical element with the symbol Li and **atomic number 3**. It is a soft, silvery-white alkali metal.
- Like all alkali metals, lithium is highly reactive and flammable, and must be stored in vacuum, inert atmosphere, or inert liquid such as purified kerosene or mineral oil.
- 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.

18. (b)

Statement 1 is not correct and statement 2 is correct.

Advantages of LEDs

- **Long Lifespan**: LED bulbs can last up to 25,000 hours or more, which means less frequent replacements and reduced maintenance costs.
 - o LEDs have an extremely long lifespan relative to every other lighting technology (including fluorescent lights).
- Energy Efficiency: They convert a higher percentage of electrical energy into light, reducing energy waste and lowering electricity bills.
- LEDs can produce up to 300 lumen (amount of visible light emitted per second) versus incandescent bulbs' 16 lumen and fluorescent lamps' 70 lumen.

19. (b)

Statements 1 and 3 are incorrect.

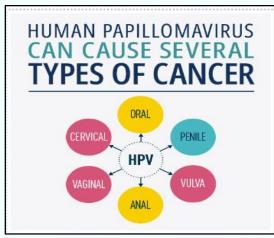
About the NISAR:

- NASA-ISRO Synthetic Aperture Radar (NISAR) represents a first-of-its-kind collaboration between NASA and ISRO for an Earth-observing mission.
- Launch: The radar satellite is set to launch in 2024,
- Aim: To monitor changes in Earth's frozen regions, including ice sheets, glaciers and sea ice.
- Collaboration: NASA's Jet Propulsion Laboratory will lead the US component and provide the mission's L-band SAR.
 - o ISRO's UR Rao Satellite Centre and Space Applications Centre will contribute the spacecraft bus, launch vehicle and S-band SAR electronics.
- It will employ two radar systems, an L-band and an S-band, to penetrate clouds and darkness, offering comprehensive data even during polar winter nights, making it a valuable tool for allweather observations.
- NISAR will also shed light on the dynamics of sea ice near both the poles which are critical to understand global climate patterns.

20. (d)

Human papillomavirus (HPV):

HPV is the **name of a very common group of viruses that affects skin.** They do not cause any problems in most people, **but some types can cause genital warts or cancer.**



Symptoms: HPV does not usually cause any symptoms. Most people who have it do not realise and do not have any problems. But sometimes the virus can cause **painless growths or lumps** around vagina, penis or anus **(genital warts)**.

21. (a)

Thirty Meter Telescope (TMT) project:

- The TMT has been conceived as a **30-metre diameter primary-mirror optical and infrared telescope** that will enable observations into deep space.
- It is proposed as a joint collaboration involving institutions in the US, Japan, China, Canada, and India.
- Indian participation in the project was approved by the Union Cabinet in 2014.

22. (a)

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

Square Kilometre Array Observatory

- The SKA Observatory is an intergovernmental organization bringing together 14 countries;
 Australia, Canada, China, France, Germany, India, Italy, New Zealand, Spain, South Africa,
 Sweden, Switzerland, The Netherlands and the United Kingdom.
- Headquarters: United Kingdom
- **Mandate:** Its aim is to build and operate cutting-edge radio telescopes to transform the understanding of the Universe.
 - o It will explore the formation and evolution of galaxies, fundamental physics in extreme environments and the origins of life.
- The observatory consists of the two telescopes at radio-quiet sites in South Africa and Australia, and associated facilities to support the operations of the telescopes.

Indian Engagement in SKAO

- India, through the Pune-based **National Centre for Radio Astrophysics (NCRA)** has been involved in the development of SKA since its inception in the **1990s**.
- India's main contribution is in the development, and operation, of the Telescope Manager element, the "neural network" or the software that will make the telescope work.

23. (d)

Statements 1 and 2 are not correct : China launched the **Einstein Probe (EP)** to observe mysterious transient phenomena in the universe.

- A Long March-2C carrier rocket carried a satellite called Einstein Probe.
- It is a new astronomical satellite which is shaped like a lotus in full bloom.

- O It is a mission of the Chinese Academy of Sciences (CAS) dedicated to time-domain high-energy astrophysics.
- It aims to capture the first light from supernova explosions, search for X-ray signals accompanying gravitational wave events, and discover dormant black holes and other celestial objects.
- The satellite's X-ray detection technology is inspired by lobster-eye telescopes.

24. (c)

Both the statements are correct.

What is the Polygraph Test?

- The Polygraph Test is commonly known as a lie detector test.
- It is based on the assumption that physiological responses (heartbeat, changes in breathing, sweating, etc.) triggered when a person is lying are different from what they would be otherwise.

Are the results of the tests admissible as evidence?

• In 'Selvi & Ors vs State of Karnataka & Anr' (2010) the Supreme Court said, that the results of the tests cannot be considered to be "confessions".

25. (b)

PRITHVI VIgyan (PRITHVI) Programme: The Union Cabinet cleared 'PRITHVI Programme for earth observation, satellite projects with Mauritius.

- It encompasses five ongoing sub-schemes of the Ministry of Earth Sciences (MoES), like:
 - o Atmosphere & Climate Research-Modelling Observing Systems & Services (ACROSS);
 - Ocean Services, Modelling Application, Resources and Technology (O-SMART);
 - o Polar Science and Cryosphere Research (PACER);
 - o Seismology and Geosciences (SAGE); and,
 - o Research, Education, Training and Outreach (REACHOUT)
- Satellite for Mauritius: The Union Cabinet approved an agreement between the Indian Space Research Organisation (ISRO) and Mauritius Research and Innovation Council (MRIC) to jointly develop a 'small satellite'.
 - India and Mauritius have a history of cooperation since the 1980s when ISRO established a ground station in Mauritius for tracking and telemetry support for ISRO's launch vehicle and satellite missions.

26. (b)

Statement 1 is not correct and statement 2 is correct.

What is the Aditya-L1 mission?

- Aditya-L1 is the first space-based Indian observatory to study the Sun.
- The solar mission will not see the spacecraft actually go to the sun, it will instead create a space observatory at a point from which the sun can be observed even during an eclipse.
- The spacecraft will be placed in a halo orbit around the Lagrange point 1 (L1), around 1.5 million km from the Earth, of the Sun-Earth system.
- The mission has a life **of five years** during which its payloads are expected to provide the information to understand the phenomenon of
 - o Coronal heating; coronal mass ejection; pre-flare and flare activities and their characteristics;
 - O Dynamics of space weather; and propagation of particles and fields.
- **It is equipped with seven payloads** (instruments) on board with four of them carrying out remote sensing of the Sun and three of them carrying in-situ observation.

What are the seven payloads?

• The Visible Emission Line Coronagraph (VELC) will study the Corona, imaging and spectroscopy, and Coronal mass ejections.

- The Solar Ultraviolet Imaging Telescope (SUIT) will focus upon the Photosphere and Chromosphere imaging- narrow and broadband. It will also measure the solar irradiance variations.
- The Solar Low Energy X-ray Spectrometer (SoLEXS) and High Energy L1 Orbiting X-ray Spectrometer (HEL1OS) will study the soft and hard X-ray flares from the Sun over a wide X-ray energy range.
- The Aditya Solar wind Particle Experiment (ASPEX) and Plasma Analyser Package For Aditya (PAPA) will analyze the electrons and protons in the Solar wind or particles. It will also study the energetic ions.
- The Advanced Tri-axial High Resolution Digital Magnetometers will study the interplanetary magnetic field at L1 point.

27. (c)

Both the statements are correct.

What is the Aditya-L1 mission?

- Aditya-L1 is the first space-based Indian observatory to study the Sun.
- The solar mission will not see the spacecraft actually go to the sun, it will instead create a space observatory at a point from which the sun can be observed even during an eclipse.
- The spacecraft will be placed in a halo orbit around the **Lagrange point 1 (L1)**, around **1.5 million** km from the Earth, of the Sun-Earth system.

28. (b)

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

Square Kilometre Array Observatory

- The SKA Observatory is an intergovernmental organization bringing together 14 countries; Australia, Canada, China, France, Germany, India, Italy, New Zealand, Spain, South Africa, Sweden, Switzerland, The Netherlands and the United Kingdom.
- Headquarters: United Kingdom
- **Mandate:** Its aim is to build and operate cutting-edge radio telescopes to transform the understanding of the Universe.
 - o It will explore the formation and evolution of galaxies, fundamental physics in extreme environments and the origins of life.
- The observatory consists of the two telescopes at radio-quiet sites in South Africa and Australia, and associated facilities to support the operations of the telescopes.

Indian Engagement in SKAO

- India, through the Pune-based **National Centre for Radio Astrophysics (NCRA)** has been involved in the development of SKA since its inception in the **1990s**.
- India's main contribution is in the development, and operation, of the Telescope Manager element, the "neural network" or the software that will make the telescope work.

29. (c)

Both the statements are correct.

Giant Metrewave Radio Telescope (GMRT)

- **It is operated** by the National Centre for Radio Astrophysics (NCRA), a part of the Tata Institute of Fundamental Research.
- GMRT is the world's largest and most sensitive radio telescope operating within the 110-1,460
 MegaHertz frequency range.

- **Significance:** GMRT was among the six top radio telescopes used to enable the detection of the **nano-hertz gravitational waves** for the first time.
 - O Such waves are expected to originate from a large number of dancing monster black hole pairs, several million times heavier than the Sun.

30. (a)

Statement 1 is correct: Radiocarbon dating, or carbon-14 dating, is a scientific method that can accurately determine the age of organic materials.

• It was developed in the late 1940s by Willard Libby, the technique is based on the decay of the carbon-14 isotope.

Statement 2 is not correct: It starts with **cosmic rays**—subatomic particles of matter that continuously rain upon Earth from all directions.

- When cosmic rays reach Earth's upper atmosphere, physical and chemical interactions form the radioactive isotope carbon-14.
- Living organisms absorb this carbon-14 into their tissue. Once they die, the absorption stops, and the carbon-14 begins very slowly to change into other atoms at a predictable rate.

By measuring **how much carbon-14 remains,** scientists can estimate how long a particular organic object has been dead.

ENVIRONMENT & ECOLOGY

- 1. What unique physical adaptations help the Snow Leopard thrive in its cold and mountainous habitat?
 - (a) Large ears for better hearing
 - (b) Long legs for fast running.
 - (c) Striped tail for camouflage.
 - (d) Thick fur coat with dark rosettes.
- 2. The laughing gull, a migratory bird, recently seen in the coastal regions of Kerala, is native to which of the following continents?
 - (a) Asia
 - (b) Australia
 - (c) Antarctica
 - (d) North and South America
- **3.** Consider the following pairs:

Protected area	Well- known for
Bhitarkanika, Odisha	Salt Water Crocodile
2. Desert National Park, Rajasthan	Great Indian Bustard
Eravikulam, Kerala	Hoolak Gibbon

Which of the pairs given above is/are correctly matched?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 only
- (d) 1, 2 and 3
- **4.** "Melanistic Tiger Safari", recently seen in the news, is related to which of the states?
 - (a) Kerala
 - (b) Maharashtra
 - (c) Odisha
 - (d) Madhya Pradesh
- **5.** Which of the following is *not* a recognized subspecies of tiger?
 - (a) Bengal tiger
 - (b) Amur tiger
 - (c) Golden tiger
 - (d) Sumatran tiger
- **6.** World's largest iceberg, named A23a, recently seen in the news, is related to:
 - (a) Alaska
 - (b) Iceland
 - (c) Antarctica
 - (d) Greenland
- 7. Which one of the following statements are most likely to be true about the Staphylococcus aureus?
 - (a) It is a new causative factor of influenza disease.
 - (b) It is a fungus widely cultivated in the Himalayan region.
 - (c) It is a new variety of Bt Brinjal.
 - (d) It is a gram-positive bacteria having a strain resistant to antibiotics.

- **8.** *Gambusia affinis*, recently seen in the news, is related to which of the following?
 - (a) A new species of red ant found in Andaman and Nicobar.
 - (b) An invasive species of frogs found in backwaters of Kerala.
 - (c) A mosquitofish found to be invasive for local species.
 - (d) A local variety of millet crop with high nutritive value.
- **9.** With reference to the Great Indian Bustard, consider the following statements:
 - 1. It is the state bird of Gujarat.
 - 2. It is listed as critically endangered on the IUCN Red List of Threatened Species.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **10.** With reference to the Ungulates, consider the following statements:
 - 1. The word ungulate comes from the Latin word "unguis", which means nail, claw or hoof.
 - 2. Horses, Zebras and Rhinoceroses are even-toed ungulates.
 - 3. They have the ability to digest cellulose as they graze on the plants.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **11.** With reference to the Strategic Interventions for Green Hydrogen Transition (SIGHT) Initiative, consider the following statements:
 - 1. It consists of financial incentive mechanisms through fiscal benefits.
 - 2. It is similar to a Production Linked Incentive scheme for the Green Hydrogen sector.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **12.** With reference to the *deep sea coral reefs*, consider the following statements:
 - 1. These are created by stony corals.
 - 2. These are bright white in colour because of the lack of algae.
 - 3. Lophelia pertusa is the most common species for these.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- **13.** Recently an appeal has been made to revive commercial activities on Willingdon Island. In the context of the above statement ,which of the following states is related to Willingdon Island?
 - (a) Tamil Nadu
 - (b) Kerala
 - (c) Andhra Pradesh
 - (d) Odisha

14. Consider the following statements regarding Genetically Modified (GM) crops:

- 1. GM crops are more resistant to pests and diseases compared to conventional crops.
- 2. The patenting of GM crops raises concerns about corporate control of the food supply.
- 3. The use of GM crops can contribute to increased biodiversity loss through unintentional gene transfer to wild relatives.
- 4. Brinjal and cotton are the only transgenic crops that are being commercially cultivated in India.

How many of the statements given above are correct?

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

15. With reference to the *Distress Alert Transmitter (DAT)*, consider the following statements:

- 1. It is an initiative of India Meteorological Department (IMD).
- 2. It primarily focuses on the drought in the water scarred region of India.

Which of the statements given above is/are correct?

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

16. With reference to the Saltwater crocodiles, which of the following statements is/are correct?

- 1. The IUCN status of the species is Critically Endangered.
- 2. The species is protected under Schedule I of the Wild Life (Protection) Act, 1972.

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. Consider the following pairs

Species In News IUCN Red List status

1. Saltwater crocodiles Least Concern

2. Gentoo penguin Critically Endangered

3. Himalayan Wolf Vulnerable

4. Megamouth Shark Near Threatened

How many of the above pairs are correctly matched?

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

18. With reference to the solid-fuel missiles, which of the following statements is/are correct?

- 1. It requires separate tanks for fuel and oxidizer.
- 2. Solid fuel missiles require less preparation time compared to liquid fuel missiles.

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **19.** With reference to the Global Framework for Climate Services (GFCS), consider the following statements:

- 1. It was established in 2009 as an outcome of the third World Climate Conference held in Geneva.
- 2. It is aimed at creating long-term historical averages for vital weather parameters.

Which 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 pairs:

Hydrogen Types Characteristics

1. Green H2 Produced from renewable energy sources

2. Yellow H2 Hydrogen made through electrolysis using solar power as the only source

Grey H2 Produced from fossil fuels with carbon capture and storage (CCS)
 Blue H2 Produced from fossil fuels without carbon capture and storage (CCS)

How many of the above pairs are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) All three pairs
- (d) None of the pairs
- 21. The Himalayan Wolf population is most likely to be found in which of the following national parks?
 - (a) Kaziranga National Park
 - (b) Dudhwa National Park
 - (c) Hemis National Park
 - (d) Murlen National Park
- **22.** With reference to the Snow Leopard, consider the following statements:
 - 1. It is the state animal of Himachal Pradesh.
 - 2. It is listed as critically endangered on the IUCN Red List of Threatened Species.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **23.** The first-ever confirmed record of the Tibetan brown bear in India, was recorded in which one of the following states of India?
 - (a) Jammu and Kashmir
 - (b) Ladakh
 - (c) Sikkim
 - (d) Arunachal Pradesh
- **24.** With reference to the National Clean Air Programme (NCAP), consider the following statements:
 - 1. Initially, NCAP has a tentative national-level target of 20–30% reduction of $PM_{2.5}$ and PM_{10} concentration by 2024.
 - 2. In 2022, the national level target was revised to 40% reduction in particulate matter concentration in cities by 2026.
 - 3. 2017 is selected as the base year for the comparison of concentration.

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

25. Consider the following statements:

- 1. Green hydrogen involves extracting hydrogen from natural gas through a process called steam methane reforming (SMR).
- 2. The use of green hydrogen is being explored in areas such as transportation, industrial processes, and energy storage.
- 3. India has set a commitment of achieving the target of net zero emissions by 2070.

How many of the statements given above are correct?

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

26. With reference to the The Genetic Engineering Appraisal Committee (GEAC), which of the following statements is/are correct?

- 1. It is responsible for the assessment of proposals related to the commercial release of genetically modified (GM) crops.
- 2. It is constituted under the Ministry of Environment, Forest and Climate Change (MoEF&CC).

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. Government of India is promoting the use of Sulphur-coated urea (SCU) in recent times, due to which of the following reasons:

- 1. It will be more economical and efficient than the Neem-coated urea.
- 2. It increases nitrogen use efficiency and improves soil health.
- 3. It will make India world's largest exporter of Urea.
- 4. It reduces environmental impacts.

Select the correct answer using the code given below:

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

28. Which one of the following statements best describes E-fuels?

- (a) These are the fuels used in electric vehicles in the form of stored electricity.
- (b) Low-emission fuels produced from renewable energy sources like solar power, water, and captured carbon dioxide.
- (c) The fuels that are specifically used in the aviation and marine industries.
- (d) Fuels which are eco friendly and produce zero GHG emissions.

29. With reference to the pollination, consider the following statements:

- 1. It is the act of transferring pollen grains in non-flowering plants.
- 2. Only bees and butterflies can facilitate pollination.

Which of the statements given above is/are correct?

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

30. Consider the following statements:

- 1. The waggle dance is a behavior exhibited by honeybees to communicate information about the location of food sources.
- 2. Karl von Frisch was awarded the Nobel Prize in Physiology or Medicine in 1973 for his contributions in studying this behavior of honeybees.

Which of the statements given above is/are correct?

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

31. With reference to the Inland Waterways Authority of India (IWAI), which of the following statements is/are correct?

- 1. IWAI, is an autonomous organization constituted under the Inland Waterways Authority of India Act, 1985.
- 2. The head office of IWAI is located at Noida.

Select the correct answer using the code given below:

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

32. 'The Wetland City Accreditation scheme' is administered under which of the following Conventions?

- (a) Montreal Convention
- (b) New Delhi Convention
- (c) Ramsar Convention
- (d) Geneva Convention

33. With reference to the Antimicrobial Resistance (AMR), consider the following statements:

- 1. Self-prescription without proper medical guidance is one of the leading causes of AMR.
- 2. India's Red Line campaign is to discourage the over-the-counter sale of antibiotics.
- 3. Indian Council of Medical Research (ICMR) established the AMR surveillance Network to combat AMR.

How many statements given above are correct?

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

34. Consider the following pairs:

Species in news :

IUCN Red list status

- 1. Eurasian Otter Near Threatened
- 2. Peninsular Hill Trout Endangered
- 3. European bison Vulnerable

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 above

35. Which of the following is not found in the Buxa Tiger Reserve?

(a) Fishing Cat

- (b) Asian elephant
- (c) One-horned rhinoceros
- (d) Pangolin

EXPLANATIONS

1. (d)

Thick fur coat with dark rosettes.

The snow leopard:

• The snow leopard is an **inhabitant of the high alpine regions** of **Central and South Asia** and is often referred to as the **"ghost of the mountains,"**.

Appearance:



- Elusive and beautifully camouflaged, snow leopards' appearance is characterized by its **thick fur coat** adorned with a pattern of dark rosettes and spots, blending seamlessly with their rocky, snowy habitat.
- With a long, powerful tail for balance and muscular limbs, they're skilled climbers and agile hunters.
- Their **large paws** act like snowshoes, distributing their weight and facilitating silent movement on snow.

Habitat and Habits:

• Solitary by nature, snow leopards occupy vast, rugged territories, scaling treacherous peaks and roaming high mountain passes.

Threats:

• Snow leopards face numerous threats, including **habitat loss** due to infrastructure development, **poaching for their fur and bones**, and **competition** with other animals like Himalayan bears for prey. **Conservation status:** Vulnerable on the IUCN Red List.

2. (d)

The Laughing gull:



• Scientific name: Leucophaeus atricilla

- **Features**: The bird has a dark upper part, black legs, long drooping bill, and a dark smudge on the back of the head.
- Native to: North and South America.
- **Habitat**: Salt marshes, coastal bays, piers, beaches, ocean. Generally found only in coastal regions, but also ranging several miles inland to rivers, fields, dumps.
- Conservation status: Least concern

3. (b)

• Option B is correct: The hoolock gibbons are three primate species of genus Hoolock in the gibbon family, Hylobatidae, native to eastern Bangladesh, Northeast India and Southwest China. The forests of north-east India are well known for the rich biodiversity they support, both faunal and floral. The western hoolock gibbon (Hoolock hoolock) and the eastern hoolock gibbon (Hoolock leuconedys) are the only apes found in these regions. Desert National Park, Rajasthan is the only place where Rajasthan State Bird (Great Indian Bustard), State animal (Chinkara) and State tree (Khejri) and State flower (Rohida) are found naturally. The Bhitarkanika Wildlife Sanctuary is one of India's biggest estuarine crocodile habitats and a major coastal ecosystem. It was declared as a National Park in 1998. The area has also been designated as the second Ramsar site in 2002. Hence, statements 1 and 2 are correct and 3 is incorrect.

4. (c)

News

• Odisha will start a **melanistic tiger safari**, the first of its kind anywhere in the world, near Similipal Tiger Reserve (STR).

About

• The state government's plan has received in-principle approval from the technical committee of the **National Tiger Conservation Authority** (NTCA), the national body for the conservation of the big cat.

Simlipal Tiger Reserve (STR)

- Similipal derives its name from 'Simul' (Silk Cotton) tree.
- It is located in **Odisha's Mayurbhanj district** adjoining Jharkhand and West Bengal.
- It is **Asia's second largest** biosphere reserve, and the country's only wild habitat for melanistic royal Bengal tigers.
 - o More than **60% of Simlipal's** tigers are 'black'.

5. (c)

Golden tiger

- There are nine subspecies or types of tigers, three of which are now extinct.
- The remaining six subspecies include the **Bengal**, **Indo-Chinese**, **South China**, **Amur**, **and Sumatran tigers**.
- Wildlife photographer from Coimbatore recently snapped the **tiger with a golden coat** on a safari in **Assam's Kaziranga National Park**.

Golden tiger:



- This tiger looks golden because it has a mutation or a genetic variant.
- Basically, tigers have three colours: black, orange, and white.
- But, in golden tiger, **the black colour is missing**, and it is slightly faded. Even the orange colour is also faded.

6. (c)

Antarctica

- The world's largest iceberg, named A23a, seen in Antarctica.
- It contains an estimated one trillion tonnes of freshwater.
- The iceberg, which is up to 400 metres thick in places, is currently drifting between Elephant Island and the South Orkney islands.

7. (d)

Statement d is correct.

- In the new study, IIIM researchers tested the antibacterial properties of tetrahydrocannabidiol (THCBD), a semisynthetic phytocannabinoid, against Staphylococcus aureus, the bacteria responsible for the second most number of deaths due to Antimicrobial resistance (AMR) worldwide.
- The study revealed THCBD obtained from cannabis could fight MRSA (methicillin-resistant S. aureus), a strain of Staphylococcus aureus, is resistant to the last line of antibiotics called methicillin, necessitating alternative solutions.

8. (c)

About Gambusia affinis

- The biological control of mosquitoes, introducing mosquitofish in freshwater ecosystems to feed on mosquito larvae became a prominent way to control mosquito menace.
- Among mosquito predators were two species of mosquitofish,
 - o Gambusia affinis and
 - Gambusia holbrooki.
- The authors who recently investigated the diversity of haplotypes and genotypes within Gambusia species in India, consider mosquitofish to be among the hundred most detrimental invasive alien species.
- In India, some reports have indicated a **decline in Microhyla tadpoles** following the introduction of *Gambusia*
- The World Health Organisation stopped recommending Gambusia as a mosquito control agent in 1982.
- In 2018, the **National Biodiversity Authority** of the Government of India also **designated** *G. affinis and G. holbrooki* as invasive alien species.

9. (b)

Statement 1 is not correct and Statement 2 is correct.

About: Great Indian Bustards

- One of the heaviest flying birds endemic to the Indian subcontinent.
- State Bird of **Rajasthan**.

Scientific Name: Ardeotis nigriceps

Habitat:

• Untamed, Arid grasslands.

- A Maximum number of GIBs were found in Jaisalmer and the Indian Army-controlled field firing range near Pokhran, Rajasthan.
- Other areas: Gujarat, Maharashtra, Karnataka and Andhra Pradesh.

Protection Status:

IUCN Status: Critically Endangered.

Listed in Wildlife Protection Act's Schedule 1.

10. (b)

Statement 1 is correct: Ungulates are **hoofed mammals** that walk on their toes. The word ungulate comes from the Latin word **"unguis"**, which means **nail**, **claw or hoof**.

Statement 2 is not correct: Ungulates are divided into two classes: **even-toed ungulates** such as deer, giraffe, antelopes, and **odd-toed ungulates** such as **horses**, **zebras and rhinoceroses**.

Statement 3 is correct: They have the ability to digest cellulose as they graze on the plants.

11. (d)

The Strategic Interventions for Green Hydrogen Transition (SIGHT) Initiative: The MNRE has established the incentive implementation structure for generating and delivering green ammonia at the most economical rate through a competitive selection procedure within the SIGHT Initiative.

Statement 1 is correct:

- It encourages the use of green hydrogen, and reduces dependence on fossil fuels and focuses on decarbonization.
- It consists of **two distinct financial incentive mechanisms** through **direct incentives and fiscal benefits to** support domestic manufacturing of electrolysers and production of Green Hydrogen for five and three years respectively.

Statement 2 is correct:

- It is **similar to a Production Linked Incentive** scheme for the Green Hydrogen sector.
- It aims at making India the global hub for the production of green hydrogen and achieving net zero carbon emissions by the year 2070.

12. (c)

Statement 1 is correct:

- Deep Sea Coral Reefs: They are defined as corals that live at depths greater than 50 metres, but most species live in depths several hundred metres deep, in cold, dark, rocky habitats, often far from shore.
 - They are created by stony corals that form large geological structures over thousands of years.
- They provide habitat for sharks, swordfish, sea stars, octopus, shrimp and many other kinds of fish.

Statement 2 is correct:

- Deep reefs cover more of the ocean floor than tropical and shallow-water reefs.
- The deep-sea corals need to **rely on alternative sources of food** to obtain their nutrition, either by feeding on organic material falling from the surface or by feeding on small plankton. They **lack algae**, because **algae cannot survive where there is no light.** These are **bright white** in colour.

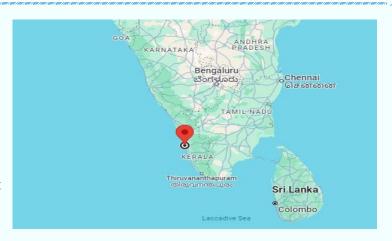
Statement 3 is correct:

- Species for Deep Sea Corals: There are only six species that create reefs.
 - The most common of these is **Lophelia pertusa**, which forms massive reefs throughout the Atlantic Ocean, including the Gulf of Mexico and the South Atlantic Bight.

13. (b)

<u>Willingdon Island</u> is among the most beautiful locations in the Kochi area of **Kerala**.

- This man-made island is among the biggest of its kind in India. It was created in 1933 and named after the then British Viceroy of India, Lord Willingdon.
- The architect of this artificial island was Robert Bristow and currently, the land is under the Indian Navy and Cochin Port Trust.



14. (c)

About GM crops:

- GM crops (transgenic crops) are plants whose genetic makeup has been altered to introduce desirable traits or remove undesirable ones.
- This is done through various techniques, including inserting genes from other organisms or modifying existing genes.
- Crops like **brinjal, tomato, maize and chickpea** are in various stages of trials that employ transgenic technology.
 - However, cotton remains the only transgenic crop that is being commercially cultivated in India.

Benefits of GM crops:

- Increased yield and productivity: GM crops can be engineered to resist pests, diseases, and harsh weather conditions, leading to higher crop yields and improved food security.
- Reduced reliance on pesticides and herbicides: GM crops resistant to pests and diseases can minimize the need for chemical pesticides, benefiting the environment and human health.
- Improved food quality: GM crops can be engineered to have longer shelf life, improved taste, and resistance to spoilage, reducing food waste and improving food quality.

Concerns:

- Safety concerns: Some concerns exist regarding the potential long-term health effects of consuming GM foods, although scientific evidence generally supports their safety.
- Environmental impact: Unforeseen ecological consequences like the potential for unintended gene
 transfer to wild relatives or increased pesticide use in certain cases need careful monitoring and
 mitigation.
- Threatens local varieties: Commercial release of Dhara Mustard Hybrid-11 (DMH-11), a genetically-engineered variant of mustard, has put 5,477 local varieties of mustard at risk.
- Ethical considerations: Concerns about corporate control of seeds and the patenting of genes raise ethical questions about access to food and biodiversity.

15. (d)

Statement 1 is not correct:

• The Indian Space Research Organisation (ISRO) upgraded its **Distress Alert Transmitter (DAT)** as **Second Generation DAT (DAT-SG)** to aid Search and Rescue Operations in the Maritime Domain.

Statement 2 is not correct:

- It can receive messages from the control centre, allowing for the transmission of advance alerts about *bad weather, cyclones, tsunamis, or other emergencies*.
- It can send back an acknowledgement to the fishermen who activate the distress alert, assuring them of incoming rescue.

16. (b)

Statement 1 is not correct and statement 2 is correct.

Saltwater crocodile

- Scientific Name: Crocodylus porosus.
- Features: Earth's largest living crocodilian, with average-size males reaching 17 feet and 1,000 pounds.
- Habitat
 - o Brackish and freshwater regions of eastern India, Southeast Asia and northern Australia.
 - o In and around BNP, the Sundarbans and the Andaman and Nicobar Islands, in India.

Protection Status

- IUCN Red List: Least Concern
- Wild Life (Protection) Act, 1972: Schedule I

17. (b)

<u>Saltwater crocodile</u> is the largest of all crocodilians, and the largest reptile in the world.**IUCN Red List status**: It is listed as **Least Concern (Correctly matched)**

<u>Gentoo penguin</u>: It is a species of penguin characterized by a band of white feathers extending across the top of the head from just above each eye.

- It is the world's fastest underwater birds
- IUCN Red List status : It is listed as Least Concern. (InCorrectly matched)

<u>Himalayan wolves</u>, also called Tibetan wolves, which live at more than 4,000 metres altitudes are genetically distinct from grey wolves.

• IUCN Red List status: The animal has been categorised as 'Vulnerable' on the IUCN Red List. (Correctly matched)

Megamouth Shark

- It is named after its large, circular mouths
- It has soft bodies with large oily livers.
- IUCN Red List status : It is listed as Least Concern. (InCorrectly matched)

18. (b)

Statement 1 is not correct and statement 2 is correct.

What is Solid-Fuel Technology?

- Solid fuel missiles are rockets that use a prepackaged propellant mixture of fuel and oxidiser, as opposed to liquid-fueled missiles which require separate tanks for fuel and oxidizer.
- Metallic powders such as **aluminum** often serve as the fuel, and **ammonium perchlorate**, which is the salt of perchloric acid and ammonia, is the most common oxidiser.
- The fuel and oxidiser are bound together by a hard rubbery material and packed into a metal casing.
- When solid propellant burns, oxygen from the ammonium perchlorate combines with aluminum to generate enormous amounts of energy and temperatures, creating thrust and lifting the missile from the launch pad.

Advantages of solid fuel

- Faster deployment: Solid fuel missiles require minimal preparation time, as fueling is not necessary. This allows for quicker launches, making them harder to pre-empt or target.
- Increased survivability: Solid fuel is more stable and less susceptible to damage compared to liquid fuels, making the missiles more resistant to pre-emptive strikes.
- Easier storage and maintenance: Solid fuel has a longer shelf life and requires less maintenance compared to liquid fuels, simplifying storage and reducing logistical burdens.

19. (c)

Both the statements are correct: It is a partnership of governments and organisations at a global level, for the production and better usage of climate information and services.

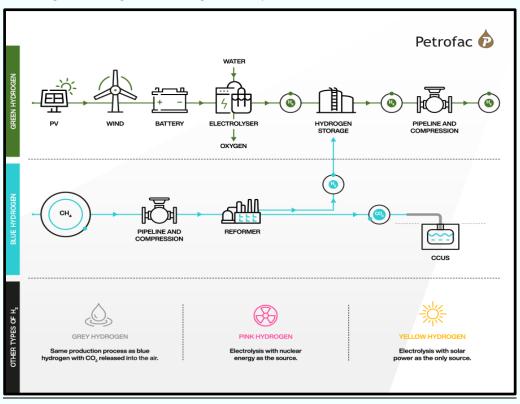
- The announcement to establish a GFCS was made during the **third World Climate Conference held in Geneva in 2009.**
- It is led by National Meteorological and Hydrological Services (NMHS) in their respective nations.
- GFCS envisages to generate **high-quality data** from national and international databases on temperature, rainfall, wind, soil moisture and ocean conditions and other vital weather parameters.
- This is aimed at **creating long-term historical averages** of these parameters, as well as maps, risk and vulnerability analyses, assessments and long-term projections and scenarios.

20. (b)

Pairs 3 and 4 are not correct.

Various Hydrogen Types:

- **Green H2:** Produced from renewable energy sources like solar and wind power through electrolysis, making it the cleanest and most sustainable option.
- Yellow H2: Yellow hydrogen is a hydrogen made through electrolysis using solar power as the only source.
- **Grey H2:** Produced from fossil fuels like natural gas without any carbon capture or mitigation, leading to the highest carbon footprint among all hydrogen types.
- Blue H2: Produced from fossil fuels with carbon capture and storage (CCS) technology, aiming to capture and store carbon emissions from the production process, but still poses concerns about potential leakage and long-term storage viability.



21. (c)

Hemis National Park in Ladakh is renowned for its diverse wildlife, including the largest population of Himalayan Wolves in India.

The Himalayan Wolf:



- The Himalayan wolf is found in the **high altitude ecosystems** of the **Himalayas and the Tibetan Plateau**.
- In evolutionary terms it is an **old lineage of wolves** and largely been overlooked by science. Only in recent years, the genetic evidence showed that the Himalayan wolf is **distinct from the Holarctic grey wolf found in Europe and North America**.
- Scientific name: Canis lupus chanco
- Morphology: It is larger in size than the Indian and European wolves. They reach upto 110-180 cm in length, about 75 cm tall at the shoulder and weigh around 50 kg.
- They have **thick fur with brown colouration on the back** and tail with paler yellows on the face, limbs and underside.

22. (a)

Statement 1 is correct and statement 2 is not correct.

About: Snow Leopard

- Scientific Name : Panthera uncia
- **Distribution :**They are sparsely distributed across 12 countries in central Asia, from southern Russia down to the Tibetan plateau, including Mongolia, China, Afghanistan, Pakistan, India and Nepal.
- Threats: The loss of natural prey species, retaliatory killing due to conflict with humans and illegal trade of its fur and bones.
- Conservation: Classified as 'Vulnerable' by the International Union for Conservation of Nature (IUCN) Red list and listed in Schedule-I species of the Indian Wildlife (Protection) Act, 1972.
- It is the state animal of Himachal Pradesh.

23. (c)

Tibetan Brown Bear:



• The **first-ever confirmed record of the Tibetan brown bear** in India, was recorded in the highaltitudes of **North Sikkim**.

- Scientific Name: Ursus arctos pruinosus
- The **Tibetan brown bear** also known as the **Tibetan blue bear** is one of the rarest subspecies of bears in the world, and is **rarely sighted in the wild.**
 - O There were only a few confirmed records from Nepal, Bhutan, and the Tibetan plateau.
- It is uniquely adapted to the harsh conditions of the Tibetan Plateau.
- Conservation status: It has been accorded the highest protection status under the Wildlife (Protection) Act, 1972 by listing it under Schedule-I.
 - It is also listed in Appendix I of the Convention on International Trade in Endangered Species (CITES) as a protected species.
- It is an **omnivore** with its diet generally consisting of marmots and alpine vegetation.
- This rare bear is **very different from the more commonly found Himalayan Black Bear** in terms of its appearance, habitat, and behaviour.

24. (d)

All statements are correct: The goal of the National Clean Air Programme (NCAP) is to meet the prescribed annual average ambient air quality standards at all locations in the country in a stipulated time frame. The NCAP's initial target was to reduce **two key air pollutants, PM10 and PM2.5**, by 20-30% by 2024, with 2017 levels as the base. In September 2022, the Centre revised this to a 40% reduction by 2026.

• The plan includes 131 non-attainment cities, across 23 states and Union territories, which were identified by the Central Pollution Control Board (CPCB) on the basis of their ambient air quality data between 2011 and 2015.

25. (b)

Statement 1 is not correct: Green hydrogen refers to hydrogen that is produced **using renewable energy sources**, such as wind, solar, or hydropower, through a process called electrolysis.

- Electrolysis involves splitting water (H2O) into hydrogen (H2) and oxygen (O2) using an electric current.
- Grey Hydrogen: It involves extracting hydrogen from natural gas through a process called steam methane reforming (SMR).
 - This process releases **carbon dioxide (CO2)** as a byproduct, contributing to greenhouse gas emissions.
- Statement 2 is correct: Significance of Green Hydrogen: It is seen as a key component in efforts to decarbonize various sectors, including industries that currently rely heavily on fossil fuels.
 - The use of green hydrogen is being explored in areas such as transportation, industrial processes, and energy storage, with the goal of reducing overall carbon footprints and promoting a more sustainable energy future.

Statement 3 is correct: India set a commitment to achieve net zero by 2070 at the United Nations Climate Change Conference in Glasgow (COP26).

26. (c)

Both the Statements are correct.

The Genetic Engineering Appraisal Committee (GEAC):

- It is constituted under the Ministry of Environment, Forest and Climate Change (MoEF&CC).
- It is under 'Rules for Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms/Genetically Engineered Organisms or Cells 1989', under the Environment Protection Act, 1986.
- It is responsible for the assessment of proposals related to the commercial release of GM crops.

27. (c)

Benefits of Sulphur-coated urea:

- Sulphur-coated urea will be more economical and efficient than the currently used Neem-coated urea.
- Improved soil health: The new sulphur-coated urea will address Sulphur deficiency in the Indian soil.
 - O Sulphur-coated Urea is expected to play a pivotal role in enhancing soil health, optimizing nutrient release, and ensuring improved crop yields.
- Increased nitrogen use efficiency: SCU releases nitrogen slower and more evenly, reducing nitrogen losses through leaching and volatilization.
- Reduced environmental impact: Lower nitrogen losses help prevent water pollution and greenhouse gas emissions associated with traditional urea.
- Save input costs: It will also save input costs for the farmers and raise incomes for farmers with enhanced production & productivity.

28. (b)

E-fuels:

- E-fuels (Electrofuels), also known as **synthetic fuels**, **are low-emission liquid or gaseous fuels** produced from **renewable energy source**s like solar or wind power, water, and captured carbon dioxide.
 - o **Eg.** eGasoline, eDiesel, eHeating oil, eKerosene, e-methane, e-kerosene and e-methanol.
- They can be tailored to replace conventional fuels like gasoline, diesel, and jet fuel, offering a drop-in solution for existing engines and infrastructure.
- In transport, low-emission e-fuels provide a complementary solution to sustainable biofuels.
- Particularly in aviation, e-fuels benefit from their ability to use existing transport, storage, distribution infrastructure and end-use equipment.

29. (d)

Both the statements are incorrect: Pollination is the act of transferring pollen grains from the male anther of a flower to the female stigma of flowering plants.

• Over 100,000 invertebrates—including bees, butterflies, beetles, moths, wasps, and flies—and more than a thousand mammals, birds, reptiles, and amphibians pollinate plants.

30. (c)

Both the statements are correct: The waggle dance is a fascinating and sophisticated behavior exhibited by honeybees to communicate information about the location of food sources, such as nectar and pollen, to other members of the hive.

This dance was first studied and described by Austrian ethologist Karl von Frisch, who was awarded
the Nobel Prize in Physiology or Medicine in 1973 for his contributions to the understanding of the
honeybee's communication system.

31. (c)

Both the statements are correct.

Inland Waterways Authority of India (IWAI)

- IWAI, is an autonomous organization constituted in 1986 under the Inland Waterways Authority of India Act, 1985.
- IWAI is primarily responsible for development, maintenance and regulation of those waterways which have been declared as National Waterways under **National Waterways Act**, **2016**.
- The head office of IWAI is located at **Noida**.

32. (c)

About the Wetland City Accreditation scheme:

- The Wetland City Accreditation scheme is an ongoing program administered by the Ramsar Convention on Wetlands.
- The scheme was implemented in 2015 under Resolution XII.10 adopted by the Conference of the Contracting Parties to the Ramsar Convention (COP12).
- **Purpose:** To recognize and honor cities demonstrating outstanding efforts in protecting and managing their urban wetlands.

Significance:

- This voluntary scheme provides an opportunity for cities that value their natural or humanmade wetlands to gain international recognition and positive publicity for their efforts.
- O The scheme will encourage cities in close proximity to and dependent on wetlands, to highlight and strengthen a positive relationship with these valuable ecosystems.
- The Accreditation scheme should further promote the conservation and wise use of urban and peri-urban wetlands, as well as sustainable socio-economic benefits for local people.
- Overall, 43 cities in the world are accredited as wetlands cities under Ramsar Convention.
 - Of these 18 were accredited in 2018 and 25 in 2022. However, India is yet to make it to the prestigious list.

33. (c)

All the Statements are correct.

What is Antimicrobial Resistance?

- Antimicrobial Resistance (AMR) occurs when bacteria, viruses, fungi and parasites change over time
 and no longer respond to medicines making infections harder to treat and increasing the risk of
 disease spread, severe illness and death.
- Nearly **700,000 people** die of AMR every year. The toll can rise to as many as 10 million by 2050 and eat up **3.8 per cent** of annual global gross domestic product (GDP).

Causes for Antimicrobial Resistance

- Overuse and Misuse of Antibiotics: The excessive and inappropriate use of antibiotics in humans and animals is a major driver of antimicrobial resistance. This includes using antibiotics without a prescription, not completing the full course of prescribed antibiotics, and using antibiotics for nonbacterial infections.
- Inadequate Dosage and Duration: When antibiotics are not taken in the correct dosage and for the recommended duration, it can lead to incomplete eradication of the targeted microorganisms, allowing the surviving bacteria to develop resistance.
- **Self-Medication:** Self-prescription without proper medical guidance contributes to the misuse of antibiotics.
- Antibiotics Consumption in Food-Animals: Use of antibiotics as growth promoters in food animals and poultry is a common practice and later it evolves in the food chain.

Measures Taken against Antimicrobial Resistance in India

- AMR Surveillance Network: Indian Council of Medical Research (ICMR) established the AMR surveillance and research network (AMRSN) to generate evidence and capture trends and patterns of drug resistant infections in the country.
- India's Red Line campaign: Which demands that prescription-only antibiotics be marked with a red line, to discourage the over-the-counter sale of antibiotics—is a step forward.

34. (b)

Pairs 1 and 2 are correctly matched: <u>The Eurasian otter covers</u> the largest range of any Palearctic mammal, covering parts of three continents – Europe, Asia, and Africa. Eurasian otters are classified as 'Near Threatened'.

Peninsular Hill Trout(Lepidopygopsis typus)

- It is known locally as 'Brahmanakenda'.
- It is a unique freshwater fish species of the Western Ghats
- It has been listed as 'endangered' on the IUCN Red List

Pair 3 is incorrectly matched: European bison (Bison bonasus) is also known as the wisent

It is classified as 'Near Threatened'.

35. (c)

About the Buxa Tiger Reserve:

- Buxa Tiger Reserve is situated in **North Bengal's** Alipurduar district and stretches over a length of 50 km from West to East and 35 km from North to South.
- Its Northern boundary runs along the border with Bhutan.
- The main carnivores include:
 - o Indian Tiger (Panthera tigris tigris),
 - Leopard (Panthera pardus),
 - o Clouded Leopard (Neofelis nebulosa),
 - o Hog badger (Arctonyx collaris),
 - o Leopard Cat (Prionailurus bengalensis),
 - Sloth Bear (Melursus unsinus),
 - o Fishing Cat (Prionailurus viverina),
 - o Civet Cat (Viverricula indica), etc.

The herbivores include: Asian elephant, gaur, sambar, spotted deer, barking deer and hog deer. Besides, there are other faunal species like: porcupine, rhesus macaque, common pangolin and the Chinese pangolin.

MISCELLENEOUS

- 1. "Corruption Perceptions Index (CPI)", recently seen in the news, is released by which of the following?
 - (a) Interpol
 - (b) Amnesty International
 - (c) Financial Action Task Force
 - (d) Transparency International
- 2. With reference to Jeevan Raksha Padak Series of Awards, which of the following statements is/are correct?
 - 1. The award is given only in two categories, namely Sarvottam Jeevan Raksha Padak and Uttam Jeevan Raksha Padak
 - 2. Armed Forces personnel are only eligible for this award .
 - 3. It can be conferred posthumously.

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 and 3 only
- (c) 3 only
- (d) 1, 2 and 3
- 3. Which one of the following Indian states award the Kottai Ameer Communal Harmony Award?
 - (a) Karnataka
 - (b) Maharashtra
 - (c) Kerala
 - (d) Tamil Nadu
- **4.** Global Gender Gap Report is released by which of the following organisations?
 - (a) World Economic Forum (WEF)
 - (b) World Bank
 - (c) International Labour Organization (ILO)
 - (d) International Monetary Fund (IMF)
- 5. Sixth edition of the Khelo India Youth Games was recently held in which one of the following states?
 - (a) New Delhi
 - (b) West Bengal
 - (c) Kerala
 - (d) Tamil Nadu
- **6.** Consider the following statements regarding the findings of the Annual Status of Education Report (ASER) 2023:
 - 1. About 25% of youth in the age group 14-18 still cannot read a standard II-level text fluently in their regional language.
 - 2. Female students are more likely to be enrolled in the STEM stream than males.

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

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- **7.** Consider the following reports:
 - 1. Global Gender Gap Report

- 2. Global Inequality Crisis Report
- 3. Global Competitiveness Report
- 4. Global Financial Stability Report

Which of the above are published and or released by the World Economic Forum (WEF)?

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

8. With reference to the *Henley Passport Index*, consider the following statements:

- 1. It is based on the visa free entry of passport holders for the number of destinations.
- 2. India shares its rank with Uzbekistan in 2024.

Which of the statements given above is/are correct?

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

9. With reference to the Sisal fibre, consider the following statements:

- 1. It is an artificial form of fibre.
- 2. The main use of sisal fibre is for manufacturing of ropes and twines.

Which 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. The *Global Economic Prospects* report, sometimes appeared in the news, was released by:

- (a) International Monetary Fund (IMF)
- (b) Organisation for Economic Co-operation and Development (OECD)
- (c) World Bank
- (d) World Trade Organization (WTO)

11. With reference to the Geographical Indication (GI) tag, which of the following statements is/are correct?

- 1. It is a sign used on products that have a specific geographical origin.
- 2. The registration of a GI tag is valid for a period of 5 years 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

12. With reference to the Kai chutney, which of the following statements is/are correct?

- 1. The chutney is made with red weaver ants, found in the Similipal forests.
- 2. Recently the product has got the Geographical Indication (GI) tag.

Select the correct answer using the code given below:

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

13. Consider the following pairs:

Reports

Releasing Organisations

- 1. Global Risk Report
- 2. Global Financial Stability Report
- World Bank

3. World Economic Outlook

World Economic Forum

FATF

Which of the pairs given above are **not** correctly matched?

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

EXPLANATIONS

1. (d)

Option d is correct.

News

• Recently, the Corruption Perceptions Index (CPI) 2023 was released by Transparency International.

About

- Transparency International is a global civil society organisation founded in 1993 and is based in Berlin, Germany.
- It ranks 180 countries and territories around the globe by their perceived levels of public sector corruption.

The index uses a scale of 0 to 100, where 0 is highly corrupt and 100 is very clean.

2. (c)

<u>Context:</u> The President of India approved conferment of Jeevan Raksha Padak Series of Awards-2023 <u>Statement 1 and 2 are not correct: Jeevan Raksha Padak Series of Awards-2023:</u>

- These awards are given to a person for a meritorious act of human nature in saving the life of a person.
- The award is given in **three categories**, namely:
 - Sarvottam Jeevan Raksha Padak;
 - Uttam Jeevan Raksha Padak;
 - Jeevan Raksha Padak;
- Persons of all walks of life are eligible for these awards.

Statement 3 is correct; The award can also be conferred posthumously.

The decoration of the **award** (medal, certificate and lump sum monetary allowance) is presented to the awardees in due course by the respective Union Ministries/Organizations/State Government.

3. (d)

In News: Tamil Nadu government handed over the 'Kottai Ameer Communal Harmony Award for 2024' to Mohammed Zubair (co-founder of Alt News) for peace efforts.

- The Kottai Ameer Communal Harmony Award: It was instituted by the Tamil Nadu government in 2000 to recognize outstanding services in building harmony.
- It is presented by the Chief Minister of Tamil Nadu during the Republic Day Celebration every year.

It is presented to a person belonging to Tamil Nadu for the outstanding services rendered to promote Communal Harmony.

4. (a)

The World Economic Forum (WEF) is an international organization that was founded in **1971 by Klaus Schwab, a German economist.**

- It is headquartered in Geneva, Switzerland, and is known for its annual meeting in Davos, where
 global leaders from various sectors gather to discuss and collaborate on pressing economic and
 social issues.
- Some major reports published by WEF are:
 - o Fostering Effective Energy Transition report
 - o Global Competitiveness Report.
 - Global Gender Gap Report.
 - o Global Risk Report.

Future of Jobs Report.

5. (d)

Sixth edition of the Khelo India Youth Games:

- Venue: Four cities of Tamil Nadu: Chennai, Madurai, Trichy and Coimbatore from 19th to 31st January 2024.
- Logo: Statue of Thiruvalluvar
- Mascot: 'Veera Mangai' (brave woman) Velu Nachiyar
 - Rani Velu Nachiyar, the princess of Ramanathapuram was the first queen to fight against the British colonial power for freedom in India. She is known by Tamils as Veeramangai.



New developments:

o Archery, athletics, badminton, and squash have been introduced in this edition.

Silambam, a traditional sport of Tamil Nadu, is being introduced as a demo sport.

6. (b)

Statement 1 is correct and Statement 2 is not correct.

- The Annual Status of Education Report (ASER) 2023, titled 'Beyond Basics', was released recently by Pratham NGO.
- ASER is a nationwide citizen-led household survey that provides a snapshot of the status of children's schooling and learning in rural India.
- The 2023 survey was conducted in 28 districts across 26 states, reaching a total of 34,745 youth in the age group 14-18 years.

Major Findings

- The report states that about **25%** of this age group still **cannot read** a standard II-level text fluently in their regional language.
- It stated that **female students** are **less likely** to be enrolled in the STEM (Science, Technology, Engineering, and Mathematics) stream (28.1%) than males (36.3%).

Close to 90% of all youth have a smartphone in the household and a majority of them use it for entertainment purposes with little knowledge about online safety.

7. (a)

World Economic Forum (WEF):

- It serves as a platform for global leaders to discuss and address pressing issues, fostering a spirit of cooperation and shared responsibility.
- It provides a global, impartial and not-for-profit platform for meaningful connection between stakeholders to establish trust, and build initiatives for cooperation and progress.

Reports by WEF:

- Global Gender Gap Report: It assesses the gender gap in various countries. The gender gap is the
 difference between women and men as reflected in social, political, intellectual, cultural, or
 economic attainments or attitudes.
 - o In the 2022 report, India was ranked 135 out of 146 countries.
- The Global Risks Report: It explores some of the most severe risks we may face over the next decade, against a backdrop of rapid technological change, economic uncertainty, a warming planet and conflict.
- O As cooperation comes under pressure, weakened economies and societies may only require the smallest shock to edge past the tipping point of resilience.
- Other reports include Global Competitiveness Report (GCR), Travel and Tourism Competitiveness
 Report, and Global Information Technology Report.

However, the Global Inequality Crisis Report is released by Oxfam International, and the Global Financial Stability Report is released by the International Monetary Fund (IMF).

8. (c)

Statement 1 is correct:

- Henley Passport Index: It is the original, authoritative ranking of all the world's passports.
 - o It is **based on the visa free entry** of passport holders for the number of destinations.
- It is the **only one of its kind** based on exclusive data from the **International Air Transport Authority (IATA)** and enhanced by Henley & Partners' research team.

Statement 2 is correct:

• Indian passport ranked 80th spot in the Index of 2024, with access to 62 destinations. It shares its rank with Uzbekistan.

9. (b)

Statement 1 is not correct: Agave sisalana, commonly known as Sisal or Agave of Agavaceae family, are perennial succulents that grow best in hot and dry areas.

• Sisal is a **hard fibre** extracted from the leaves of sisal plants.

Statement 2 is correct: Uses: The main use of sisal fibre is for manufacturing of ropes and twines and other forms of cordage. Considerable amounts of fibre are also utilized for padding and upholstery and for mats as well as for bags and sacking.

10. (c)

The World Bank said, in its 'Global Economic Prospects' report for 2024, that global growth in 2024 is set to slow for a third year in a row, prolonging poverty and debilitating debt levels in many developing countries.

• Global GDP is likely **to grow 2.4% in 2024**, and it compares to 2.6% in 2023, 3.0% in 2022 and 6.2% in 2021. It forecasts 2025 global growth slightly higher at 2.7%.

Period between 2020-2024 saw weaker growth, in comparison to the periods of Global Financial Crisis (2008-2009), and the Asian Financial Crisis (late 1990).

11. (a)

Statement 1 is correct and Statement 2 is not correct.

What is Geographical Indication (GI)?

- A geographical indication (GI) is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
- In order to function as a GI, a sign must identify a product as originating in a given place.
- Geographical indications are typically used for agricultural products, foodstuffs, wine and spirit drinks, handicrafts, and industrial products.

GI Tags and India

- The Geographical Indications of Goods (Registration and Protection) Act,1999 seeks to provide for the registration and better protection of geographical indications relating to goods in India.
- The Act is administered by the Controller General of Patents, Designs and TradeMarks- who is the Registrar of Geographical Indications.

The registration of a geographical indication is valid for a period of **10 years.**

12. (c)

Both the statements are correct.

Similipal Kai chutney

- The chutney is made with red weaver ants, found in the forests of Mayurbhanj, including in the Similipal forests Asia's second-largest biosphere.
- It is rich in medicinal and nutritional value, the chutney is believed to be a good source of nutrients like protein, calcium, zinc, vitamin B-12, iron, magnesium, potassium, etc.

Recently the product has got the Geographical Indication (GI) tag.

13. (d)

- Global Risk Report is released by the World Economic Forum (WEF)
- Global Financial Stability Report is released by the International Monetary Fund (IMF)
- World Economic Outlook is released by the International Monetary Fund (IMF)