

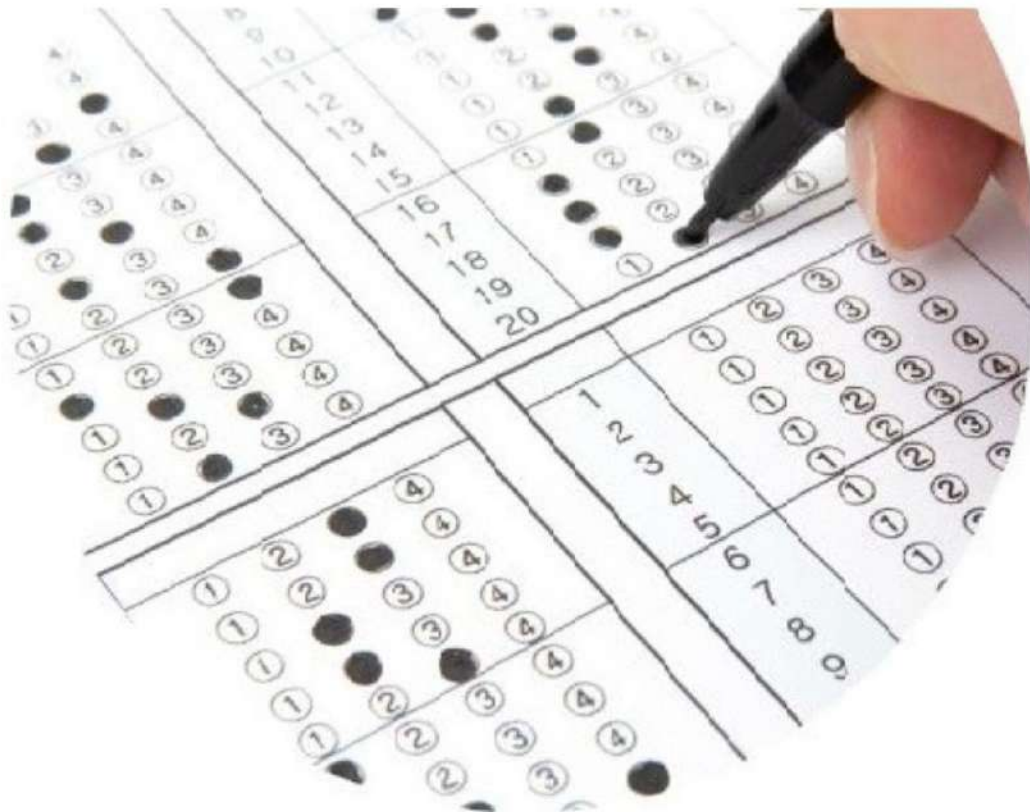


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# MONTHLY PRESTORMING

## SEPTEMBER 2024

A compilation of Prelims MCQs with solutions from Current Affairs of the month



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## MONTHLY PRESTORMING

September 2024

01-09-2024 & 02-09-2024

1) Drp1, sometimes seen in the news recently, is associated with?

- Nearest nebula to the Milky Way galaxy.
- A newly-developed needle-free Covid vaccine by Indian Immunologicals Ltd (IIL).
- A key protein that controls mitochondrial dynamics.
- An indigenously developed Automatic Train Protection (ATP) system.

2) Consider the following statements with respect to Hydrogels

- Any polymer that readily absorbs water is a hydrogel.
- They are three-dimensional networks composed of hydrophobic polymers synthesized by crosslinking water-soluble polymers.

Which of the above statement(s) is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

3) Consider the following statements:

- The Indian wolf is a subspecies of Grey wolf and hunt during the night.
- Indian wolf is protected under schedule I of the Wildlife Protection Act, 1972.
- Arabian wolf does not have sweat glands.

How many of the statements given above are correct?

- Only one
- Only two
- All three
- None of the above

4) Consider the following statements with respect to the Copyright Act, 1957

- Artistic work under the act includes a painting, a sculpture, a drawing, an engraving or a photograph that must possess artistic quality.
- 'Nationalisation' of copyrights allows anyone to freely copy, modify, distribute and use the works, even for commercial purposes without needing permission.
- Upon the death of the author, the ownership of the copyright falls to her legal heirs.

How many of the statements given above are **incorrect**?

- Only one
- Only two
- All three
- None of the above

5) Consider the following statements:

**Statement-I:** Polymer Fume Fever is caused by inhaling toxic fumes released from overheated Teflon-coated cookware.

**Statement-II:** Polymer Fume Fever can also be prevented by using wooden or silicon ladles to stop the coating from wearing off the coating.

Select the correct answer using the codes given below:

- Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- Statement-I is correct but Statement-II is incorrect
- Statement-I is incorrect but Statement-II is correct

## Answers

1. c

### Drp1

- Drp1 or dynamin-related protein 1, is a key protein that controls mitochondrial dynamics.
- It is **naturally abundant in cells** and plays a *crucial role in the division of mitochondria* into smaller sizes.
- When Drp1 activity is **excessive**, it can lead to *fragmented mitochondria with impaired function*.
- This fragmentation can contribute to neuronal dysfunction and cell death, which are hallmarks of neurodegenerative diseases like Parkinson's.
- Imbalances in mitochondrial dynamics have been linked to neurodegenerative diseases like Parkinson's.
- Parkinson's disease is a neurodegenerative disorder that affects about 1 million Americans and more than 10 million people worldwide.
- It is the result of dying brain cells that control movement.
- Certain disease-related factors disrupt the harmony of mitochondrial fusion and division.
- To know more about Parkinson Disease [click here](#).

2. c

### Hydrogels

- Hydrogels are materials that can absorb and retain large amounts of water.
- They are three-dimensional networks composed of hydrophobic polymers synthesized by crosslinking water-soluble polymers.
- They can retain a large quantity of water within their network **without disturbing their original structure**.
- This imparts **flexibility and swelling properties** to the hydrogel structures.
- **Common examples of hydrogels include:**
  - **Ointments and lotions** – These are used to moisturize the skin.
  - **Contact lenses** – These are made from soft hydrogels that are comfortable to wear.
  - **Diapers** – These absorb urine and contain superabsorbent hydrogels.

- **Medical dressings** – These can be used to absorb wounds and promote healing.

3. c

### Indian Wolf

- The Indian wolf (*Canis lupus pallipes*) is a subspecies of Grey wolf.
- They are also relatively less vocal and have rarely been known to howl.
- Indian wolves are territorial and *hunt during the night*.
- One wolf usually is acting as a decoy while the other attacks from behind.
- **Range** – Found in India, Pakistan, Afghanistan, Nepal, Bhutan, Israel, Turkey, Iran, and Syria.
- **Population** – There are approximately 400-1,100 wolves living in the Himalayan Region and 4,000-6,000 wolves in the Peninsular Region.
- Wolves in the Himalayan Region prefer colder, steeper habitats while those in the Peninsular Region are mostly found in agro-pastoral areas that have less forest density (approximately 280,400 km<sup>2</sup>).
- Indian wolves are carnivores and prey mainly on antelopes, rodents, hares, and raccoons.
- Indian wolves are **monogamous** and mate for life.
- The gestation period usually lasts around 62-75 days.
- Indian wolf is **protected under Schedule I** of the Wildlife Protection Act of 1972.
- It is listed as **endangered** under the International Union for Conservation of Nature (IUCN) Red List.
- **Main threats** to Indian wolves include habitat loss, unregulated hunting, and loss of prey.

### Arabian wolf

- The Arabian wolf (*Canis lupus arabs*) is a subspecies of grey wolf native to the Arabian Peninsula, the Negev Desert, the Sinai Peninsula and Jordan.
- It is omnivorous, eating small to medium-sized prey.

- Similar to other canines, the **Arabian wolf does not have sweat glands** and so it must control its body temperature by rapid panting, which causes evaporation from the lungs.
- They do not usually live in large packs, and instead hunt in pairs or in groups of about three or four animals.
- Along with the Indian wolf, it is probably smaller than other wolves to help it adapt to life in a hot and dry climate.
- **Range** – Egypt, Iraq, Israel, Jordan, Oman, Palestine, Saudi Arabia, Syria, United Arab Emirates, Yemen.

4. a

### Copyright Act, 1957

*The Tamil Nadu government has recently decided to nationalise Karunanidhi's works under the Copyright Act, 1957.*

- Under the Copyright Act, 1957, an author has exclusive rights over their work, including the right to reproduce, distribute, perform, and adapt their work.
- These **rights last for 60 years** after the author's death.
- **Artistic work under the act include:**
  - A painting, a sculpture, a drawing (including a diagram, map, chart or plan), an engraving or a photograph and **it is not necessary possess any such work possesses artistic quality.**
  - Work of architecture and
  - Any other work of artistic craftsmanship.
- After the author's death, the **copyright ownership transfers to their legal heirs.**
- The heirs can then decide how the work is used, including assigning the copyright to others.
- The Tamil Nadu government has a scheme through the Tamil Virtual Academy to collaborate with legal heirs and have them assign the copyrights of specific works to the state government.
- This "nationalisation" of copyrights means the works will be released into the public domain under a Creative Commons CCo license.
- **Nationalisation allows anyone to freely copy, modify, distribute and use the**

**works, even for commercial purposes, without needing permission.**

- The Tamil Nadu government has already nationalised the works of 179 Tamil scholars this way, **paying royalties** to the heirs.
- This is similar to how the Maharashtra government has made the works of Dr. B.R. Ambedkar freely available in the public domain.
- The goal is to make these important literary and intellectual works freely accessible to the public, rather than restricted by private copyright ownership.
- This expands public access and use of these culturally significant works.

5. a

### Polymer Fume Fever

*In the recent times, the Teflon flu is on the rise in the United States.*

- Polymer Fume Fever is also called as Teflon flu which is caused by the by inhaling toxic fumes released from overheated Teflon-coated cookware.
- **Teflon** – Is a synthetic chemical that contains carbon and fluorine called polytetrafluoroethylene.
- It provides a nonreactive, non-stick and frictionless surface.
- The non-stick surface makes cooking convenient for people.
- Teflon cookware can release huge toxic fumes and harmful chemicals into food when cooked at a high temperature.
- **Symptoms** – Include chills, cough, chest tightness, difficulty breathing, headache, dizziness, fatigue, malaise, nausea, vomiting, and muscle and joint aches.
- **Impacts** – The flu can also affect the patient's taste buds and cause bad or unpleasant taste.
- **Alternate options** – Like mud pots can also be used.
- Indian Council of Medical Research in their "Dietary Guidelines for Indians", called mud pots as one of the "safest" cookware.
- **Diagnosis** – Is typically based on symptom history and assessment of whether the patient had used Teflon-coated cookware at high temperatures.

- Most cases are mild and self-limiting, but people with chronic lung conditions should be careful.

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

**03-09-2024**

1) Consider the following statements:

1. All High Courts are allowed to use Hindi in their proceedings and legal documents.
2. Article 21 states that the public has the right to early justice, which includes justice in a language they understand.
3. National Judicial Academy seeks to develop common core vocabulary for the purpose of translating legal material into regional languages.

How many of the statements given above are correct?

- Only one
- Only two
- All three
- None of the above

2) Consider the following statements with respect to Krishi-Decision Support System (DSS)

1. It is a digital geo-spatial platform that provides real-time data insights for stakeholders in Indian agriculture.
2. It is an initiative of Ministry of Agriculture & Farmers' Welfare.

Which of the above statement(s) is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

3) Consider the following statements with respect to Bird Dung

1. It is a species of spiders of the family Thomisidae.
2. Western Ghats has the world's highest concentration of this species.

Which of the above statement(s) is/are correct?

4) Om Parvat, sometimes seen in the news recently, is a mountain peak situated at?

- Himachal Pradesh
- Jammu and Kashmir
- Uttarakhand
- Sikkim

5) Consider the following statements with respect to TDP1

1. It plays a crucial role in maintaining the DNA structure during replication and transcription.
2. It is an enzyme found in all higher organisms.

Which of the above statement(s) is/are **incorrect**?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

## Answers

1. a

## Proceedings in the Supreme Court and High Courts

- Article 348(1) (a) of the Constitution of India states that all proceedings in the Supreme Court and in every High Court, shall be in **English language**.
- Article 348 (2) of the Constitution states that the Governor of a State, with consent of the President, authorize the use of Hindi Language, or any other language in the proceeding of the high court.
- Out of India's 25 High Courts, **only four high courts such as Rajasthan, Madhya Pradesh, Uttar Pradesh and Bihar are allowed** to use Hindi in their proceedings and legal documents.

- Bihar was the last High Court to receive authorisation to use Hindi way back in 1972.
- The use of Hindi in the proceedings of High Court of Rajasthan was authorized under clause (2) of Article 348 of the constitution in 1950.
- Government of India had received proposals from the Government of few states such as Tamil Nadu, Gujarat, Chhattisgarh, West Bengal and Karnataka to use of their regional languages.
- **According to Article 21, the public has the right to early justice, which includes justice in a language they understand.**
- **Bharatiya Bhasha Samiti** – A High Powered Committee for Promotion of Indian Languages has been constituted by the **Ministry of Education**.
- The mandate of this committee would be to explore and recommend pathways of the holistic and multi-disciplinary growth of Indian languages as envisaged in the National Education Policy-2020.
- **It seeks to develop common core vocabulary that that closely align with various Indian languages for the purpose of translating legal material into regional languages.**

2. c

#### Krishi-Decision Support System (DSS)

- Krishi-DSS is the first-of-its-kind geospatial platform specifically designed for Indian agriculture.
- The platform provides seamless access to comprehensive data that can be easily accessed from anywhere at any time.
- It is an initiative of the **Ministry of Agriculture & Farmers' Welfare**.
- The comprehensive data include satellite images, weather information, reservoir storage, groundwater levels and soil health information.
- It can also be helpful in drought monitoring and it will provide near real-time information on various indicators such as soil moisture, water storage, crop condition, dry spells and so on.
- It will inform the stakeholders about how weather is impacting the crops, crop harvest status, crop residue burning and so on.

3. a

#### Bird Dung or Bird-dropping Spider (*Phrynarachne decipiens*)

*Recently the bird dung crab spider was recorded by a team of zoologists from Assam, for the first time in India.*

- Bird Dung was first recorded as seen in the forests of Indonesia in the 19th century by a Scottish naturalist, who marvelled at how its silken web mimicked the fluid part of a bird's dropping.
- The species is **almost completely white**, whereas others of its kind come in varying shades of white and dark colours.
- It is **a species of spiders of the family Thomisidae**.
- They **use mimicry** of a quite different sort to capture its prey, which consist almost exclusively of male moths.
- The bite of this spider is not considered to be dangerous.
- **Range** – The Bird-dropping Spider is found throughout much of eastern and southern Australia.
- It is for the **first time** found in the **Assam of India**.
- **South-east Asia has the world's highest concentration of bird-dropping crab spiders.**



4. c

#### Om Parvat

*Om Parvat, a revered Himalayan peak in Uttarakhand, has lost its snow cover for the first time, alarming locals and scientists.*

- Om Parvat is a Himalayan peak situated at **Uttarakhand**.
- It has recently lost its snow cover for the first time.

- This phenomenon is seen as a *clear sign of climate change*, with several factors contributing:
  - Reduced snowfall in winter
  - Increased vehicular emissions
  - Rising global temperatures
  - More frequent and extensive forest fires
  - Increased pollution, including black carbon from fires
- UN report states one-third of Himalayan glaciers are threatened by global warming.
- Glaciers are losing 58 billion tonnes of ice annually.
- Temperature increase in the Hindu Kush Himalayan region is higher than global averages.
- Western Himalayas are particularly affected due to limited precipitation sources.
- **Impacts** – Threat to local livelihoods dependent on tourism.
- Disruption of the Himalayan ecosystem.
- Increased drought and earlier forest fires.
- Drying up of water sources.
- Scientists emphasize the need for a holistic approach to glacier health, considering factors like alpine forests and meadows.



5. d

## TDP1

*Scientists at IACS have discovered a potential new target for killing cancer cells, focusing on DNA repair mechanisms during cell division.*

- TDP1 plays a role in repairing the DNA damage in cancer cells.

- It plays a crucial role in maintaining the DNA structure during replication and transcription.
- Top1 is an enzyme found in all higher organisms.
- Drugs that target Top1 disrupt its activity, leading to the death of many cells, including cancer cells.
- Scientists at IACS have discovered a potential new target for killing cancer cells, focusing on DNA repair mechanisms during cell division.
- The study involves two key molecules:
  1. CDK1 protein
  2. TDP1 enzyme
- Current anti-cancer drugs (camptothecin, topotecan, irinotecan) target topoisomerase 1 (Top1), an enzyme crucial for DNA replication and transcription.
- Cancer cells can develop resistance to these drugs by activating repair mechanisms using TDP1.
- **The research findings** – Cells switch repair tools based on cell cycle stage and presence of camptothecin.
- A specific change (phosphorylation) in TDP1 helps remove it from chromosomes during cell division.
- Targeting CDK1 can disrupt the Top1-mediated DNA damage repair process.
- **Potential new treatment strategy** – Combining CDK1 inhibitors with Top1 inhibitors could be more effective against cancer cells.
- This combination makes it harder for cancer cells to survive and may overcome resistance to single-agent therapies.
- The study was conducted on human breast cancer cells, but the approach could potentially benefit patients with other cancers like ovarian, colorectal, and small cell lung cancers.

### The first step towards targeted chemotherapy

IACS researchers have discovered a new target for killing cancer cells

- The new target that has been discovered is used by cancer cells to regulate DNA repair during cell division
- Cancer cells can develop resistance to treatment by using intrinsic DNA repair mechanism
- A combinatorial targeting of two key molecules – the CDK1 protein and the TDP1 enzyme – may lead to novel anti-cancer therapeutics
- Currently, anti-cancer drugs target a molecule (Top1) involved in DNA replication and transcription
- While drugs that target Top1 can disrupt its activity leading to the death of cancer cells, cancer cells can activate their repair mechanisms to counteract the drug effects
- Targeting another protein (CDK1) that disrupts the Top1-mediated repair process can potentially kill the cancer cells



IACS researchers are currently using mouse models to test the combination drug therapies using in vivo tumours

- Combining CDK1 inhibitors with Top1 inhibitors can prove lethal for cancer cells



**04-09-2024**

1) Consider the following statements with respect to Aditya-L1

1. Aditya-L1 is a multi-wavelength, multi-directional, multi-spatial and multi-instrument observatory.
2. Before arriving at L1, it hovered in an oval orbit around L1, to conserve the fuel.

Which of the above statement(s) is/are correct?

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

2) Kalasa Nala Diversion Project, sometimes seen in the news recently, aims to divert which of the following river?

- a. Kaveri River
- b. Mahadayi River
- c. Krishna River
- d. Tungabhadra River

3) Consider the following statements with respect to Great Indian Bustard

1. They are cryptic and vagile birds occupying large landscapes without distinct boundaries.
2. It is a flagship species and acts as indicator species to indicate the health of our grasslands or pulse of grassland ecosystem.
3. It is listed in the Schedule I of the Indian Wildlife (Protection) Act, 1972 and under the Appendix I of Convention on International Trade in Endangered Species (CITES).

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

4) Consider the following statements:

**Statement-I:** Pumped storage hydropower (PSH) is a large-scale method that uses the principle of gravity to generate electricity.

**Statement-II:** Pumped storage hydropower (PSH) acts similarly to a giant battery that can store power and then release it when needed.

Select the correct answer using the codes given below:

- 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

5) Consider the following statements with respect to Vishnu Yuddh Abhyas

1. It is a mock drill on pandemic preparedness that aims to evaluate the readiness and response of the National Joint Outbreak Response Team (NJORT).
2. It is a first-of-its-kind mock drill that is conducted under the aegis of National One Health Mission (NOHM).

Which of the above statement(s) is/are **incorrect**?

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

## Answers

1. a

### Aditya-L1

- Aditya-L1 aims to conduct magnetic field measurements in the corona and understand the interaction of charged particles in solar winds with Earth's atmosphere and satellites.
- It also intends to understand those processes inside the Sun, which lead to solar flares, coronal mass ejections and geomagnetic storms.
- **Objectives of it includes:**

- Study of Solar upper atmospheric (chromosphere and corona) dynamics.
  - Study of chromospheric and coronal heating, physics of the partially ionized plasma, initiation of the coronal mass ejections, and flares
  - Observe the in-situ particle and plasma environment providing data for the study of particle dynamics from the Sun.
  - Physics of solar corona and its heating mechanism.
  - Diagnostics of the coronal and coronal loops plasma: Temperature, velocity and density.
  - Development, dynamics and origin of CMEs.
  - Identify the sequence of processes that occur at multiple layers (chromosphere, base and extended corona) which eventually leads to solar eruptive events.
  - Magnetic field topology and magnetic field measurements in the solar corona.
  - Drivers for space weather (origin, composition and dynamics of solar wind.
- The observatory is expected to **function for at least five years**, and as space records go, it will likely function for much longer than that.
  - **Orbital Position** – Located at L1, about 1.5 million km from Earth.
  - It provides an uninterrupted view of the Sun and allows fuel conservation due to balanced gravitational forces.
  - Aditya-L1 performed a manoeuvre called 'Trans-Lagrangian Point 1 Insertion', entering the trajectory towards L1.
  - The spacecraft is in an equilibrium state and a stable position, and simply **hovers in a halo orbit** around L1, without spending much fuel.
  - A halo orbit is neither a perfect circle nor an oval, but a lopsided shape known as a lissajous figure.
  - Lissajous figure is a pattern formed due to the complicated geometry of gravitational interactions there and each halo orbit takes 178 Earth days.

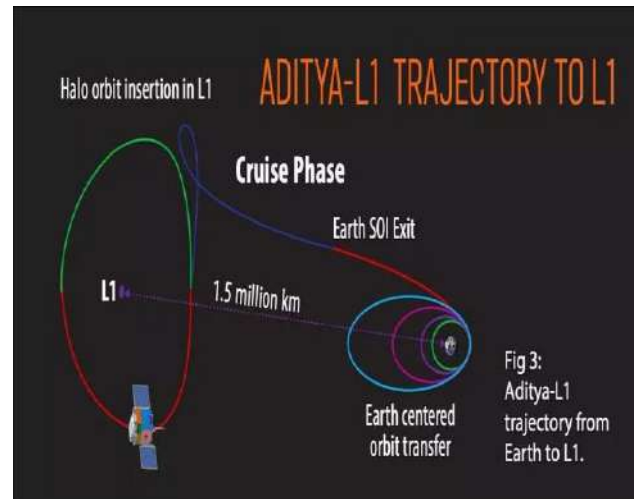
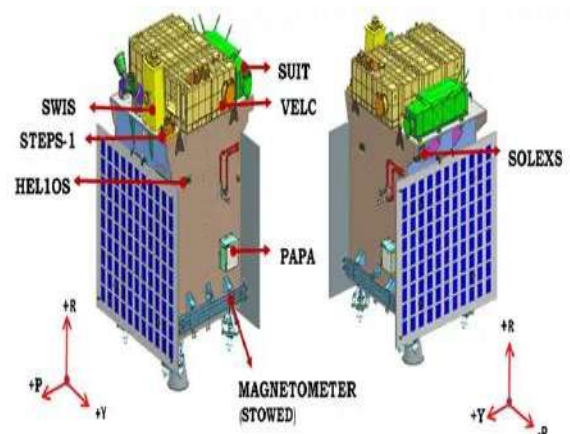


Fig 3: Aditya-L1 trajectory from Earth to L1.

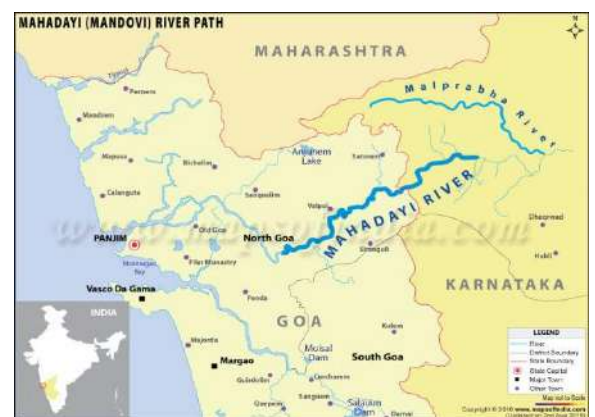
- **Scientific Instruments:**
  - Equipped with 7 payloads (4 remote sensing, 3 in-situ).
- **Instruments include:**
  - Visible Emission Line Coronagraph (VELC)
  - Solar Low Energy X-ray Spectrometer (SoLEXS)
  - Solar Ultraviolet Imaging Telescope (SUIT)
  - High Energy L1 Orbiting X-ray Spectrometer (HEL1OS)
- **In-situ payloads include:**
  - Aditya Solar wind Particle Experiment (ASPEX),
  - Plasma Analyser Package for Aditya (PAPA) and
  - Advanced Tri-axial High Resolution Digital Magnetometers.



- **Key Achievements:**

- First Indian spacecraft to reach L1.
- Exited Earth's gravitational sphere of influence and captured first high-energy X-rays from solar flares.
- Obtained full-disk images of the Sun in near-ultraviolet wavelengths.
- Measured energy variations in solar wind particles and deployed a 6-meter magnetometer boom for magnetic field measurements.
- **Scientific Observations:**
  - Detected and analysed coronal mass ejections.
  - Studied geomagnetic storms and their effects.
  - Captured images of sunspots and active regions.
  - Provided data on space weather conditions.
- **Future Goals:**
  - Better understand coronal heating mechanisms.
  - Study nuclear fusion reactions inside the Sun.
  - Investigate the temperature difference between the Sun's core and corona.
  - Improve space weather predictions and understanding of solar-terrestrial interactions.
  - The mission is expected to contribute valuable data to the global scientific community's understanding of our star and its effects on Earth's space environment.

- **Environmental and Political Implications** – The decisions highlight the tension between development needs and environmental conservation.
- There's potential for increased conflict between Karnataka and Goa over these projects.
- Environmentalists argue that the Goa-Tamnar project approval undermines Karnataka's ecological interests and sets a dangerous precedent.
- **Legal and Procedural Aspects** – The Kalasa Nala project's clearance is complicated by ongoing Supreme Court cases.
- For the Goa-Tamnar project, previous recommendations by forestry officials and the Central Empowered Committee have been seemingly overridden.
- There are concerns about potential violations of Supreme Court judgments regarding the protection of ecologically sensitive zones.
- **Mahadayi River** – Originates in the Western Ghats and flows 35 km in Karnataka and 52 km in Goa.
- The downstream state constitutes a large part of the river's catchment (78 %), which also includes runoff from Maharashtra, although the main stem of the river does not flow through that state.
- Maharashtra, as a result, is also party to the water-sharing dispute.



2. b

### Kalasa Nala Diversion Project

National Wildlife Board has declined to grant clearance for the Kalasa Nala Diversion Project, citing ongoing legal challenges by the Goa government in the Supreme Court pertaining to the Mahadayi project.

- The Kalasa Nala Diversion Project aims to divert water from the **Mahadayi River** to meet the drinking water needs of the drought-prone regions of Karnataka.
- It involves using 10.68 hectares of forest from the Kali and Sahyadri Tiger Reserves.

3. c

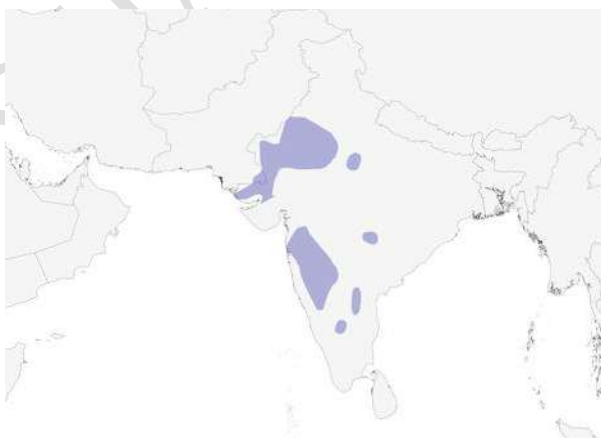
### Great Indian Bustard (*Ardeotis nigriceps*)

Recently Compensatory Afforestation Fund Management and Planning Authority (CAMPA) approved funding for the next phase of the conservation program of the Great Indian Bustard for the 2024-2029.

- The great Indian bustard can easily be distinguished by its black crown on the

forehead contrasting with the pale neck and head.

- It is **flagship species and a key indicator species** of the grassland habitat, which means its survival also signals the health of grassland habitats.
- Rajasthan State in India holds the largest population.
- They are **cryptic and vagile birds** occupying large landscapes without distinct boundaries that make complete enumeration of population impractical and unreliable.
- **Habitat and distribution** – Historically, the great Indian bustard was distributed throughout Western India, spanning 11 states, as well as parts of Pakistan.
- Its stronghold was once the Thar Desert in the north-west and the Deccan plateau of the peninsula.
- Today, its population is **confined mostly to Rajasthan and Gujarat**.
- **Small population occur in Maharashtra, Karnataka and Andhra Pradesh**.
- Bustards *generally favour flat open landscapes* with minimal visual obstruction and disturbance, therefore adapt well in grasslands.
- In the non-breeding season they frequent wide agro-grass scrub landscapes.
- While in the breeding season (summers and monsoons) they congregate in traditional undisturbed grassland patches characterized by a mosaic of scantily grazed tall grass (below 50 cm).
- They avoid grasses taller than themselves and dense scrub like thickets.



- **Threats** – Habitat loss and alteration as a result of widespread agricultural expansion and mechanized farming.
- Infrastructural development such as irrigation, roads, electric poles, as well as mining and industrialization.
- The GIB population has been rapidly declining due to habitat loss across several states.
- **Conservation** – It is listed in Schedule I of the Indian Wildlife (Protection) Act, 1972.
- It is included in the CMS Convention and in **Appendix I** of Convention on International Trade in Endangered Species (CITES).
- It is classified as '**Critically Endangered**' on the International Union for Conservation of Nature Red List.
- It is also conserved under the National Wildlife Action Plan (2002-2016).
- It has also been identified as one of the species for the recovery programme under the Integrated Development of Wildlife Habitats of the Ministry of Environment and Forests.
- Emergency action by the Forest department of the Karnataka state government include:
  - Geo-tagging the birds and artificially incubating eggs, reintroducing young birds to the wild,
  - Raising awareness among local communities and
  - Establishing a research centre in Ballari district of Karnataka.

4. b

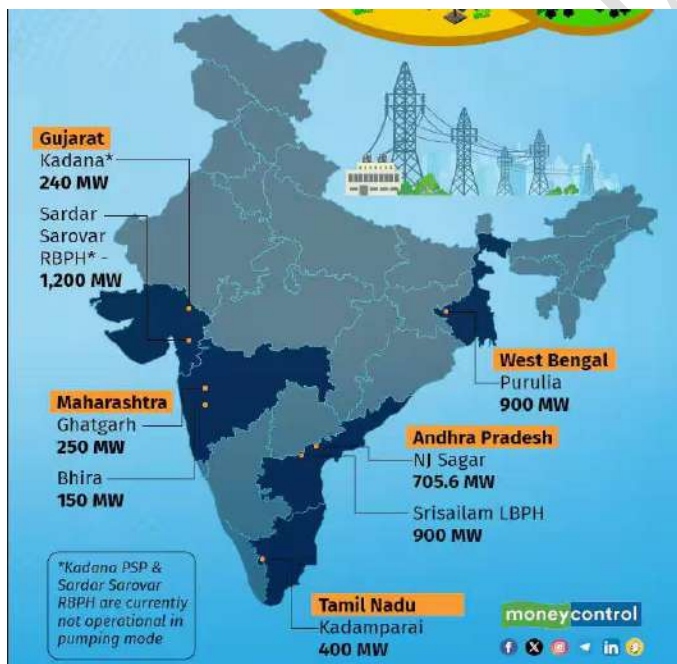
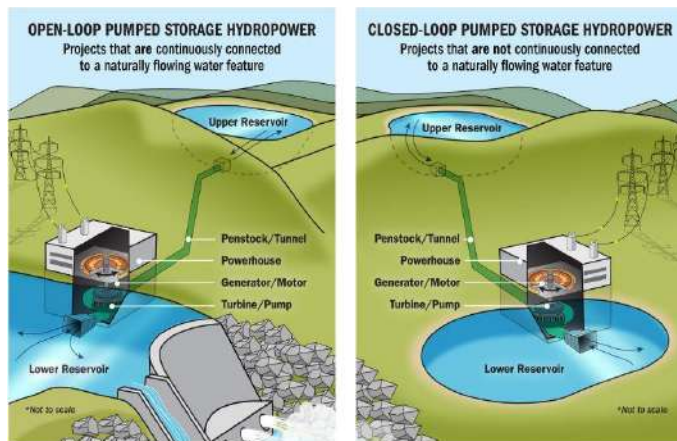
### Pumped Storage Hydropower (PSH)

*In the global shift towards renewable energy sources, energy storage solutions are gaining prominence and Pumped Storage Hydropower (PSH) is emerging as a reliable and versatile technology.*

- Pumped storage hydropower (PSH) is a type of hydroelectric energy storage.
- The first known use cases of PSH were found in Italy and Switzerland in the 1890s.
- PSH is a large-scale method that **uses the principle of gravity** to generate electricity.
- It is a configuration of *two water reservoirs at different elevations* that can generate power as water moves down from one to the other (discharge), passing through a turbine.

- The system also **requires power** as it pumps water back into the upper reservoir (recharge).
- PSH acts **similarly to a giant battery**, because it can store power and then release it when needed
- **Advantages of PSH** – PSH systems are known for their reliability and longevity.
- During periods of low electricity demand, excess electricity from the grid is used to pump water from the lower reservoir to the upper reservoir.
- When the electricity demand increases, the stored water is released back to the lower reservoir, passing through turbines to generate electricity.

- Vishnu Yuddh Abhyas is a first-of-its-kind mock drill on Pandemic Preparedness.
- It was conducted in Ajmer district of Rajasthan state under the aegis of the National One Health Mission (NOHM).
- This exercise aimed to evaluate the readiness and response of the *National Joint Outbreak Response Team (NJORT)* composed of experts from human health, animal husbandry and wildlife sectors.
- A mock zoonotic disease outbreak scenario was created to simulate a real-world outbreak.
- The drill involved multiple stakeholders that include:



- National Centre for Disease Control (NCDC) and Indian Council of Medical Research (ICMR),
- Directorate General of Health Services (DGHS), Department of Animal Husbandry and Dairying (DAHD),
- Ministry of Environment, Forest, and Climate Change (MoEF&CC), Indian Council of Agricultural Research (ICAR),
- Rajasthan State Administration, State Directorate of Health Services (DHS), State Veterinary Department and State Forest Department and others.

- The drill was structured around **two key components**:
  1. Investigation and identification of the virus responsible for the mock outbreak.
  2. Actions initiated to control the spread of illness across human and animal populations.

- Independent observers monitored the response.
- The response of the district and state teams, directed by NJORT was found to be mostly prompt and appropriate.
- The exercise also identified some areas requiring further improvement.

5. d

### Vishnu Yuddh Abhyas (Virus War Exercise)

*Vishnu Yuddh Abhyas is a first-of-its-kind mock drill to assess pandemic preparedness that was recently conducted in the Ajmer district of Rajasthan state.*

**05-09-2024**

1) Consider the following statements with respect to M-pox

1. It is a viral illness caused by the monkey-pox virus, a species of the genus Ortho-poxvirus.

2. It cannot be transmitted to the new-born during or after birth.
3. It can be treated by an effective antiviral vaccination.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

2) Consider the following statements with respect to Anoles

1. They are a specific type of lizard known for their distinctive features, including an ability to change skin colour.
2. It is native to South-east Asia region.

Which of the above statement(s) is/are correct?

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

3) Consider the following statements with respect to Indian Graphene Engineering and Innovation (IGEIC)

1. It is implemented jointly by the Centre for Materials for Electronics Technology (C-MET), Digital University Kerala (DUK) and Tata Steel Limited.
2. Secretary of the Ministry of Electronics and Information Technology (MeitY) is the chairman of the council.

Which of the above statement(s) is/are incorrect?

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

4) Consider the following statements with respect to Andaman and Nicobar Islands Integrated Development Corporation

1. It is a quasi-government agency that was incorporated on 1988 under the Companies Act 1956.
2. It is the project proponent for the NITI Aayog-promoted crore mega infrastructure project in Great Nicobar.
3. Great Nicobar is the southernmost island in the Andaman and Nicobar archipelago.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

## Answers

1. a

### Monkey pox

*The WHO Director General declared mpox a Public Health Emergency of International Concern (PHEIC).*

- Monkey pox is a viral illness caused by the monkey-pox virus, a species of the genus Orthopoxvirus.
- Mpox is caused by the monkey pox virus (MPXV).
- It is an enveloped **double-stranded DNA** virus of the Orthopoxvirus genus in the Poxviridae family, which includes variola, cowpox, vaccinia and other viruses.
- There are 2 distinct clades of the virus:
  1. Clade I (with subclades Ia and Ib)
  2. Clade II (with subclades IIa and IIb)
- In 2022–2023 a global outbreak of m-pox was caused by the clade IIb strain.
- **Transmission** – Mpox spreads from person to person mainly through close contact with someone who has mpox, including members of a household.
- Close contact includes skin-to-skin (such as touching or sex) and mouth-to-mouth or mouth-to-skin contact (such as kissing), and it can also include being face-to-face with someone who has mpox.
- People with multiple sexual partners are at higher risk of acquiring mpox.

- **During pregnancy or birth, the virus may be passed to the baby.**
- *Contracting mpox during pregnancy can be dangerous for the fetus or new-born infant and can lead to loss of the pregnancy, stillbirth, death of the new-born, or complications for the parent.*
- **Symptoms** – Skin rash or mucosal lesions which can last 2–4 weeks accompanied by fever, headache, muscle aches, back pain, low energy and swollen lymph nodes.
- **Congo** is the epicentre of an mpox outbreak that the World Health Organization declared to be a global public health emergency last month.
- Mpox is treated with supportive care for symptoms such as pain and fever, with close attention to nutrition, hydration, skin care, prevention of secondary infections and treatment of co-infections, including HIV where present.
- **Treatment** – To date, **there is no proven effective antiviral treatment for mpox.**

2. a

## Anoles

- Anolis lizards are some of the best examples of both adaptive radiation and convergent evolution.
- They are a **specific type of lizard known for their distinctive features, including an ability to change skin colour.**
- Anoles (genus Anolis) are a diverse group of lizards that have become a model system for studying evolutionary biology, particularly adaptive radiation and island biogeography.
- Anoles belong to the family Dactyloidae, order Squamata.
- Primarily found in the Americas, especially in the Caribbean islands and is **native to neotropical and nearctic regions.**
- **Species Count** – Over 400 species described, making it one of the largest genera of reptiles.
- Adaptive Radiation
- Anoles are a classic example of adaptive radiation, a process where a single ancestral species diversifies into many descendant species adapted to different ecological niches.
- **Eco-morph** – Anoles have evolved into distinct "eco-morphs" - groups of species with

similar morphological and behavioural adaptations to specific habitats:

1. Crown-giant
  2. Trunk-crown
  3. Trunk-ground
  4. Twig
  5. Grass-bush
  6. Trunk
- Each eco-morph has specific adaptations in limb length, body size, and scale structure suited to its microhabitat.
  - Island Biogeography
  - The distribution and diversification of anoles in the Caribbean provide an excellent case study for island biogeography theory.
  - **Allopatric Speciation** – Isolation on different islands has led to the evolution of distinct species.
  - **Convergent Evolution** – Similar eco-morphs have evolved independently on different islands.
  - **Island Size and Diversity** – Larger islands tend to have more anole species and eco-morphs.
  - Evolutionary Adaptations.
  - Anoles exhibit several notable adaptations:
    - **Dewlaps** – Colourful throat fans used for communication and courtship.
    - **Toe Pads** – Specialized scales allowing them to adhere to various surfaces.
    - **Colour Change** – Some species can change colour for camouflage or communication.
  - **Roles in their ecosystems** – As insectivores, they help control insect populations.
  - They serve as prey for various predators, including birds and snakes.
  - They are indicators of environmental health in tropical and subtropical ecosystems.
  - **Conservation Status** – Habitat loss and introduction of invasive species.
  - Climate change affecting island habitats.

3. c

### Indian Graphene Engineering and Innovation (IGEIC)

*India Graphene Engineering and Innovation Centre (IGEIC) under the vision of Viksit Bharat@2047 was recently launched by Ministry of Electronics and Information Technology.*

- Indian Graphene Engineering and Innovation (IGEIC) is an initiative funded by the Ministry of Electronics and Information Technology (MeitY), State Govt. of Kerala and Tata Steel Limited, in association with various industries.
- IICG is implemented jointly by the Centre for Materials for Electronics Technology (C-MET), Digital University Kerala (DUK) and Tata Steel Limited
- IICG is envisioned to investigate the science and technology of graphene and other 2D materials.
- The centre envisages partnering effectively the industrial-academic activities in order to promote innovative and adventurous research with an emphasis on applications.
- It is a key initiative under the vision of Viksit Bharat@2047.
- The centre also aims to create facilities and sophisticated equipments to promote research in alignment with industry requirements.
- Secretary of the Ministry of Electronics and Information Technology (MeitY) is the chairman of the council.

4. c

### Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO)

*Andaman and Nicobar Islands Integrated Development Corporation (ANIIDCO) is the project proponent for the crore mega infrastructure project in Great Nicobar which faced several criticism recently.*

- Andaman and Nicobar Islands Integrated Development Corporation is a **quasi-government agency** that was incorporated on 1988 under the Companies Act 1956.
- **Objective** – To develop and commercially exploit natural resources holistic and sustainable development of the territory.
- **Functions of the corporation** – ANIIDCO **ensures supply of petroleum products** like petrol, diesel and lubricants at various parts of A & N Islands.

- It is engaged in the **business of production and marketing of milk and milk products** since May 1991.
- It manages tourism resorts and infrastructure development.
- It is the **project proponent** for the **NITI Aayog**-promoted **crore mega infrastructure project in Great Nicobar**.
- **Great Nicobar is the southernmost island in the Andaman and Nicobar archipelago.**

**06-09-2024**

1) Consider the following statements with respect to NPS Vatsalya

1. It is a modified version of the National Pension System (NPS) specifically designed for specially challenged persons.
2. It has the potential to create significant wealth over time through compounding.

Which of the above statement(s) is/are correct?

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

2) Consider the following statements with respect to Semiconductors

1. It is an integrated circuits that are made from pure elements, typically silicon or germanium or compounds such as gallium arsenide.
2. At zero Kelvin, a semiconductor serves as an insulator.
3. They are an essential component of electronic devices, enabling advances in communications, computing, healthcare and military systems.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above



3) Shillong Accord of 1975, was an agreement between government of India and?

- Naga National Council (NSCN)
- United Liberation Front of Asom (ULFA)
- Kamtapur Liberation Organisation (KLO)
- National Socialist Council of Nagaland (NNC)

4) Consider the following statements with respect to Tibetan Plateau

- It is a high plateau situated on south-western China.
- The region is occupied with high air density relatively that enables the violet sudden storms are common occurrences.

Which of the above statement(s) is/are incorrect?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

## Answers

1. b

### National Pension System (NPS) Vatsalya

- NPS Vatsalya is a modified version of the National Pension System (NPS), designed specifically for **minors**.
- Under this scheme, parents or guardians will be able to open an NPS account for their children and make regular contributions until the child turns 18.
- The **primary advantage** of this NPS Vatsalya scheme is the potential to create significant **wealth over time through compounding**.
- Features** – The account will convert seamlessly into a regular NPS account, allowing the beneficiary to manage their investments and savings independently.
- The scheme is expected to offer the same diverse investment options as the traditional NPS, including a mix of equity, government securities, and corporate bonds, offering flexibility for different risk profiles.

- Subscribers can opt for either an automatic choice (which adjusts investments based on the age of the subscriber) or an active choice to manage their investments.
- Partial withdrawals will likely be allowed after three years of account creation, with a cap of 25% of the contributed amount.
- Withdrawals can be made for specified purposes, such as education or medical treatment.
- It is seen as a powerful tool for financial inclusion, encouraging families to think about future financial security from a young age.
- It was first **announced in the 2024-25 Budget**, is poised to be a transformational financial tool for Indian families, empowering them to start saving early and consistently.

2. c

### Semiconductors

India and Singapore inked agreements on semiconductor and digital technology recently.

- Semiconductors, sometimes referred to as **integrated circuits (ICs) or microchips**, are made from pure elements, typically *silicon or germanium*, or compounds such as gallium arsenide.
- In a process called *doping*, small amounts of impurities are added to these pure elements, causing large changes in the conductivity of the material.
- They are an essential component of electronic devices, enabling advances in communications, computing, healthcare, military systems, transportation, clean energy, and countless other applications.
- Due to their role in the fabrication of electronic devices, semiconductors are an important part of our lives. Imagine life without electronic devices.
- Properties – At zero Kelvin, a semiconductor serves as an insulator** and it functions as a conductor as the temperature increases.
- They have higher resistivity than conductors but a lower resistivity than insulators.
- They have higher resistivity than conductors but a lower resistivity than insulators.
- As the temperature increases, the resistance of semiconductor materials decreases, and vice versa.

3. a

### National Socialist Council of Nagaland (NSCN)

*The Ceasefire Agreement between Government of India and National Socialist Council of Nagaland was recently extended for a period of one year with effect from 08.09.2024 to 07.09.2025.*

- The National Socialist Council of Nagaland (NSCN) was formed on January 31, 1980 opposing the 'Shillong Accord' signed by the then NNC (Naga National Council) with the Indian government.
- The outfit aims to **establish a 'Greater Nagaland'** ('Nagalim' or the People's Republic of Nagaland) based on Mao Tse Tung's ideology.
- Its manifesto is based on the principle of Socialism for economic development and a spiritual outlook – 'Nagaland for Christ'.
- Later, differences surfaced within the outfit over the issue of commencing a dialogue process with the Indian Government.
- On April 30, 1988, the NSCN split into two factions, namely the **NSCN-K** led by S S Khaplang, and the **NSCN-IM**, led by Isak Chisi Swu and Thuingaleng Muivah.
- The NSCN-IM primarily consists of Tangkhul Nagas who are in a majority in parts of Nagaland and the hills of Manipur.
- NSCN-IM's weapons are smuggled from the Thai-Cambodian border.
- Drug trafficking from Myanmar is reported to be a major source of income for the NSCN-IM, and it also reportedly engages in extortion, bank robberies and other criminal pursuits to obtain finance.

4. a

### Tibetan Plateau

- Historically, Tibet was much larger than the autonomous region, being made up of **3 major areas** such as:
  1. U-Tsang
  2. Amdo
  3. Kham
- While most of U-Tsang is in China's Tibet Autonomous Region, the other two lie outside it.

- **Lhasa** is the capital of Tibet Autonomous Region and the languages spoken are Tibetan and Mandarin.
- The Tibetan Plateau stretches miles into the sky, creating an environment drastically different from the lower atmosphere.
- This extreme altitude translates to significantly **thinner air** and is occupied with **lower air density relatively**.
- Beyond the air's density, the Tibetan Plateau is a meteorological maelstrom.
- Violent wind patterns, unpredictable turbulence, and sudden storms are common occurrences.
- Due to these reasons **no flight passes thorough the Tibetan Plateau**.



- Tibet could be divided into **two broad geographic divisions** such as:
  1. 'Lake region' in the West
  2. 'River region' to the East and South
- The "lake region" is an arid and wind-swept desert.
- It has a very arid alpine climate on account of the very high mountain barriers with annual precipitation around 100 millimetres and has no river outlet.
- **Mountain Peaks** – The prominent Mountain peaks of Tibet are:
  - The Changtse, Lhotse, Makalu, Gauri Sankar, Gurla Mandhata, Cho Oyu, Mount Kailash, Namcha Barwa, Shishapangma and Yangra.
- **Rivers** – Tibet is the principal water tank of Asia and the source of some of the world's largest rivers.

- Tibet accounts for 6% of the annual throughput of water in Asia with around 90% of this water flowing outside the region through the rivers that originate in this region.
- **Major Rivers** that originate in the Tibet include:
  - Yarlung Tsangpo (Brahmaputra in India),
  - Machu (Yellow River in China) and Dri Chu (Yangtze in China),
  - Senge Khabab (Indus in India) and Phungchu (Arun in India),
  - Gyalmu Ngulchu (Salween in Burma) and Zachu (Mekong in Thailand, Vietnam, Cambodia, Laos).
- **Native Wildlife** – Tibetan antelope, wild yak, wild ass and Tibetan argali, blue sheep, black-necked crane, Tibetan gazelle, giant panda, red panda, golden monkey.



**09-09-2024**

1) Consider the following statements with respect to Terahertz (THz)

1. Terahertz (THz) is a unit of frequency and a type of electromagnetic radiation.
2. Terahertz frequencies are crucial for 6G.
3. Terahertz waves have a longer range compared with lower-frequency signals used in 4G and 5G networks.

How many of the statements given above are correct?

- a. Only one
- b. Only two

- c. All three
- d. None of the above

2) Jal Sanchay Jan Bhagidari, sometimes seen in the news recently, is associated with?

- a. Financial assistance provided for the lake and pond rejuvenation projects.
- b. Aquifer management plan for tier-1 and tier-2 cities.
- c. Construction of rainwater harvesting structures.
- d. Promotion to improve the water use efficiency across various sectors long-term water security.

3) Consider the following statements with respect to International Solar Festival

1. The first edition of International Solar Festival was held in France.
2. It features a futuristic solar city in which the sun powers everything.
3. It is a platform to influence, network, and contribute to the global energy shift.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

4) SAMRIDH Scheme, sometimes in the news recently, is associated with?

- a. An initiative to address the rail safety.
- b. Unified Ambulance service to all poor citizens across India.
- c. Aims to support existing and upcoming Accelerators.
- d. A financial inclusion scheme for transgender people.

## Answers

1. b

**Terahertz (THz)**

*A silicon topological beam-former chip for terahertz communications, which is crucial for future 6G networks has been developed recently.*

- Terahertz (THz) is a unit of frequency and a type of electromagnetic radiation.
- Terahertz waves use a relatively unoccupied portion of the electromagnetic spectrum, offering massive data-carrying capacity.
- Terahertz waves have a **shorter range** compared with lower-frequency signals used in 4G and 5G networks.
- **Terahertz beam-formers** address this challenge by precisely directing high-frequency signals to ensure they reach their destination without loss or degradation.
- The recently developed **silicon topological beam-former chip** helps to steer terahertz waves.
- **Beam-former** refers to the purpose of the chip forming terahertz waves into directed beams.
- This chip splits a single terahertz signal into 54 smaller signals, guided through 184 tiny channels with 134 sharp turns.
- Each beam can transmit and receive data at speeds of 40 to 72 gigabits per second.
- The chip uses a **microscopic honeycomb pattern** to form lanes for the terahertz waves, designed with the help of AI.
- The array of channels sends out focused beams covering 360 degrees around the chip.
- Terahertz beam-formers address the challenge of shorter range compared to lower-frequency signals used in 4G and 5G.
- Implications and Potential Applications:
  - **Faster data transfer** – Downloading a 4K movie in seconds instead of minutes.
  - **Improved VR/AR experiences** – Reduced lag for more immersive experiences.
  - **Holographic communication** – Potential for real-time, lifelike holographic interactions.
  - **Smart cities** – Better coordination of traffic systems and emergency responses.

- **Healthcare** – Possibility of remote surgeries with doctors controlling robotic instruments from afar.

- This technology seems to be a significant step forward in addressing the challenges of high-frequency signal transmission.
- The ability to provide 360-degree coverage with focused beams is particularly impressive, as it could greatly improve signal quality and reliability in various settings.

2. c

### Jal Sanchay Jan Bhagidari

*Jal Sanchay Jan Bhagidari was launched by the Shri Narendra Modi at Gujarat recently.*

- Jal Sanchay Jan Bhagidari is an initiative that aims to **construct approximately 24,800 rainwater harvesting structures** across Gujarat.
- The initiative led by the Ministry of Jal Shakti, in collaboration with the State Government.
- The rainwater harvesting structures across the State are being constructed with **community partnership**.
- These recharge structures will be instrumental in enhancing rainwater harvesting and ensuring long-term water sustainability.

The initiative aligns with the ongoing Jal Shakti Abhiyan: Catch the Rain campaign, reinforcing Mr Modi's vision of collaborative water management to ensure

3. b

### International Solar Festival

- International Solar Festival is a platform to influence, network, and contribute to the global energy shift.
- It is **hosted by the International Solar Alliance**.
- It will catalyse global solar adoption by forging partnerships, unlocking innovative financing, deploying cutting-edge technology, and boosting capacity in ISA member countries.
- The **first edition of International Solar Festival was held at New Delhi, India**.
- It aligns with businesses, policymakers, and financial institutions, it will serve as a launchpad for transformative collaborations that fast-track the world's transition to a future powered

by affordable, reliable, and sustainable solar energy.

- It is a call to action for a sustainable and equitable future powered by solar energy.
- It also has virtual-reality devices depicting solar parks and agriculture solar, and a solar smash game that gives visitors on an experiential journey of transition from fossil fuel-based power to clean and renewable solar energy.
- **It features a futuristic solar city in which the sun powers everything.**
- The festival displays *innovation in the solar sector* that can drive a greener future.
- Another key attraction is **Solartron**, an interface that shows how solar energy has been harnessed by India, USA, Germany, Japan and Australia.
- A 360-degree immersive zone, called **Solaris**, gives visitors a view of a clean metropolis and explains how solar technologies will reshape how we live and work.

4. c

#### Startup Accelerators of MeitY for Product Innovation, Development and Growth (SAMRIDH)

The second cohort SAMRIDH was launched recently to achieve the target of nurturing 300 startups.

- The SAMRIDH scheme aims to support existing and upcoming Accelerators to select and accelerate potential IT-based start-ups to scale.
- Among others, the program focuses on accelerating the start-ups by providing customer connect, investors connect and connect to international markets.
- The SAMRIDH scheme will provide support to selected Accelerators for extending Accelerator Services as defined below to start-ups and even provide first round of funding of up to 40 lakh rupees (with an average of 30 Lakh rupees per start-up per cohort).
- It is proposed to support around 300 tech Start-Ups through about 40 cohorts (size of 8-10 Start-Ups) under the program.
- The scheme will support existing and upcoming Accelerators to select and accelerate potential product based start-ups to scale.
- The program will focus on accelerating the start-ups by providing customer connect, investor connect and internationalization connect services.

- It is **implemented by MeitY Start-up Hub (MSH), Digital India Corporation (DIC).**



10-09-2024

1) Northern Laughing Tree Frog, sometimes seen in the news recently, is endemic to?

- a. Australia
- b. India
- c. Brazil
- d. Democratic Republic of the Congo

2) Consider the following statements with respect to Investor Education and Protection Fund Authority (IEPFA)

1. It is established under the provisions of the Companies Act, 2013.
2. It works under the aegis of the Ministry of Consumer Affairs, Food and Public Distribution.

Which of the above statement(s) is/are correct?

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

3) Consider the following statements with respect to Health Dynamics of India (Infrastructure and Human Resources) 2022-23

1. It is an annual document that gives a cross analysis across the states on the availability and deficiencies in manpower and infrastructure.

- It is an initiative of the World Health Organization.

Which of the above statement(s) is/are **incorrect**?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

4) Consider the following statements with respect to Parliamentary Committee on Official Language

- It was set up in 1976 under the Official Languages Act, 1963.
- Prime minister is the ex-officio chairman of the committee.
- The committee has 30 members with 20 members from Rajya Sabha and 10 members from Lok Sabha.

How many of the statements given above are correct?

- Only one
- Only two
- All three
- None of the above

5) Consider the following statements regarding the Kuki tribe

- They are found in India, Bangladesh and Myanmar.
- They historically practiced animism.
- They speak a language that is closely related to Kuki-Chin linguistic family of Sino-Tibetan race.

How many of the statements given above is/are correct?

- Only one
- Only two
- All three
- None of the above

### Northern Laughing Tree Frog

*Laughing Tree Frog* was recently added to the Australia's official list of species found in the country in 2023.

- The laughing tree frog, known as **Litoria rothii**, does not croak like other typical frogs but emits a sound that is similar to laughter.
- Habitat** – Found perched in trees and bushes near water (e.g. Melaleuca swamps).
- Also common around human-made structures such as water tanks, shower blocks and dunnies.
- It is endemic to Australia and southern New Guinea.**
- The frog is commonly encountered throughout its range, and its call is hard to miss, a loud cackle resembling a laugh.



2. a

### Investor Education and Protection Fund Authority (IEPFA)

*IEPFA recently organised 'Niveshak Mashal' annual half marathon to promote financial literacy and investor awareness.*

- Investor Education and Protection Fund Authority (IEPFA) is entrusted with the responsibility of administration of the Investor Education Protection Fund (IEPF).
- It was established under the provisions of section 125 of the Companies Act, 2013.
- It also make refunds of shares, unclaimed dividends, matured deposits/debentures and so on to investors and to promote awareness among investors.
- It works under the aegis of **Ministry of Corporate Affairs**.

## Answers

1. a

- The functions of IEPF include:
  - The refund in respect of unclaimed dividends, matured deposits, matured debentures, the application money due for refund and interest.
  - Promotion of investors' education, awareness and protection.
  - Distribution of any disgorged amount among eligible and identifiable applicants for shares or debentures & shareholders.
  - Reimbursement of legal expenses incurred in pursuing class action suits under sections 37 and 245 by members, debenture-holders or depositors as may be sanctioned by the Tribunal.
- Key initiatives include:
  - Awareness Programmes in the urban and semi-urban areas.
  - The **Indian Institute of Corporate Affairs** will also conduct some awareness programmes and research activities for the Authority.
  - Joint Awareness Campaign is usually launched with Reserve Bank of India, Securities and Exchange Board of India & Department of Consumer Affairs.

3. b

### Health Dynamics of India (Infrastructure and Human Resources) 2022-23

*Health Dynamics of India was recently released by the Ministry of Health and Family Welfare.*

- Health Dynamics of India (Infrastructure and Human Resources) 2022-23 is an annual publication formerly known as "Rural Health Statistics" that has been released since 1992.
- It is a source of reliable and authentic information on various aspects of National Health Mission (NHM).
- This data is crucial for stakeholders in the health sector, as it supports effective planning, monitoring, and management of health infrastructure across the country.
- It is an **initiative of the Ministry of Health and Family Welfare**.
- It is structured in **two parts**:
  1. Part 1 presents an overall view of India's healthcare system with State and Union Territory profiles, using

visual aids like maps and charts for clarity.

2. Part 2 is divided into 9 sections, offering in-depth data on health facilities, manpower and demographic indicators.

- The key features of the publication include:
  - **Comparative Analysis** – Provides comparisons of health infrastructure and manpower between 2005 and 2023 and from 2022 to 2023, highlighting progress and gaps.
  - **District-Wise Data** – Offers district-level details of health facilities, including:
    - Sub-Centers (SCs) and Primary Health Centers (PHCs),
    - Community Health Centers (CHCs) and Sub-District Hospitals (SDHs),
    - District Hospitals (DHs), and Medical Colleges.
  - **Rural, Urban, and Tribal Focus** – Details infrastructure and manpower in rural, urban, and tribal areas, providing targeted insights for policy planning.
  - **Classification of States/UTs** – States and Union Territories are categorized based on key healthcare performance metrics, aiding in targeted interventions.
  - **Guidance for Stakeholders** – Acts as a crucial tool for healthcare planning and management by identifying gaps and deficiencies in infrastructure and human resources.

4. a

### Parliamentary Committee on Official Language

*Union Home Minister and Minister of Cooperation Shri Amit Shah unanimously re-elected as the Chairperson of Parliamentary Committee on Official Language recently.*

- **Statement 1 is correct** – The Parliamentary Committee of Official Language was set up in 1976 under Section 4 of The Official Languages Act, 1963.
- **Statement 2 is incorrect** – The Committee is **chaired by the Union Home Minister**.

- **Statement 3 is incorrect** – It has **30 members** with **20 members from Lok Sabha** and **10 members from Rajya Sabha**.
- The purpose of the Committee is to:
  - To review the progress made in the use of Hindi for official purposes, and
  - To make recommendations to increase the use of Hindi in official communications.
- Under the provisions of the 1963 Act, the panel **submits its report to the President**, who then lay it before each House of Parliament, and sent to all the State Governments”.
- The Official Language policy of the Union has been explained in detail in the following articles:
  - Article 120 (Part-5),
  - Article 210 (Part-6),
  - Article 343, 344 and
  - From Articles 348 to 351.

5. c

### Kuki tribe

- The Kukis are an ethnic group inhabiting India's north-eastern states Manipur and Mizoram, Meghalaya, Assam, Tripura, and Nagaland.
- The Kuki is one of the several hill tribes in India, Bangladesh, and Myanmar.
- Except in Northeast India, they are present in all states except Arunachal Pradesh.
- **Religion** – Many Kuki people practice Christianity, with a significant number adhering to various denominations.
- *Traditional animistic practices and beliefs also play a role in their spiritual life.*
- The Kuki people have a diverse range of religious traditions.
- **They historically practiced animism**, which is the belief in the existence of ancestors.
- They also practice rituals such as animal sacrifices, ancestor worship, and festivals to appease their Gods.

- **Language** – *They speak a language that is closely related to Kuki-Chin linguistic family of Sino-Tibetan race.*
- **Settlements** – Traditionally the Kuki lived in small settlements in the jungles, each ruled by its own chief.
- They live an isolated existence in the bamboo forests, which provide them with their building and handicraft materials.

### 11-09-2024

1) Consider the following statements with respect to International Cooperative Alliance

1. It is an inter-governmental organization that aims to serve the cooperatives across the world.
2. It is the premier body for the global cooperative movement that was established in 1895 to promote the cooperative model.
3. India is a member of it but it has never hosted the general assembly of International Cooperative Alliance.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

2) Consider the following statements with respect to Pradhan Mantri Kisan Maan-Dhan Yojana (PM-KMY)

1. It is administered by the Ministry of Agriculture & Farmers' Welfare in partnership with the Life Insurance Corporation of India (LIC).
2. Under this scheme, the eligible farmers are provided with minimum assured pension.

Which of the above statement(s) is/are correct?

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

3) Consider the following statements with respect to Pomegranate

1. It is an important fruit crop of arid and semi-arid regions of India that has the ability to



tolerate heat, drought and moisture deficit situations.

2. India is the only country in the world where pomegranate is available throughout the year.
3. It is commercially propagated through stem cutting and air layering.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

4) Consider the following statements:

1. The International Labour Organization (ILO) advocates for social justice, with its main role being technical and financial support.
2. World Employment and Social Outlook Report is released annually by International Labour Rights Forum.
3. Recommendations of International Labour Organization (ILO) is non-binding in nature.

How many of the above statements are Correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

5) The terms Annapeticenturam and Bavana Katukkay, sometimes seen in the news recently, is associated with?

- a. Ancient collection of Indian poems in Prakrit language.
- b. Drugs included in the combination of Siddha drug treatment.
- c. Methods to control the viral diseases spread by mosquitoes.
- d. Marsupials that are naturally found in India.

## Answers

1. b

### International Cooperative Alliance

India is all set to host for the first time the general assembly of International Cooperative Alliance in November 2024 to strengthen the cooperative moment in the country.

- The International Cooperative Alliance (ICA) is a global, independent, **non-governmental organization** to represent and serve cooperatives worldwide. (**Statement 1 is incorrect**)
- The International Cooperative Alliance was **founded in London, England on 19 August 1895** during the 1st Cooperative Congress.
- **Function** – It plays a key role in advocating, promoting, and advancing the cooperative model of business and governance, ensuring that the cooperative identity is recognized globally.
- It is **one of the oldest non-governmental organisations** and one of the largest ones measured by the number of people represented.
- It is the **premier body for the global cooperative movement**.
- The ICA's goals include developing international trade, defining and defending cooperative principles, and providing information.
- **Members** – The delegates from cooperatives includes Argentina, Australia, Belgium, England, Denmark, France, Germany, Holland, **India**, Italy, Switzerland, Serbia, and the USA.
- **India is a member of the International Cooperative Alliance (ICA) since 1895 by delegates from many countries, including India.**
- **India has never hosted the general assembly for the International Cooperative Alliance.**

2. c

### Pradhan Mantri Kisan Maandhan Yojana

Pradhan Mantri Kisan Maandhan Yojana (PM-KMY) has successfully completed 5 years recently.

- Pradhan Mantri Kisan Maandhan Yojana is a government scheme meant for old age protection and social security for **Small and Marginal Farmers (SMF)**.
- The scheme is a voluntary and contributory pension scheme for the entry age group of 18 to 40 years.

- It is **administered** by the Department of Agriculture, *Ministry of Agriculture & Farmers' Welfare* in partnership with the **Life Insurance Corporation of India (LIC)**.
- It is a **Central Sector Scheme** that was **launched by Narendra Modi in 2019**.
- **Eligibility Criteria:**
  - **Small and Marginal Farmers**, between the age from **18 to 40 years**.
  - **Cultivable land up to 2 hectares** as per land records of the concerned State/UT.
- **Benefits** – Once they reach the age of 60, enrolled farmers receive a monthly **minimum assured pension of Rs. 3,000**.
- **Pension fund** – Small and marginal farmers can enrol by paying a monthly subscription to the Pension Fund.
- *The fund is managed by the Life Insurance Corporation (LIC)*.
- Farmers aged between 18 and 40 years need to contribute between Rs. 55 to Rs. 200 per month **until they turn 60**.
- **Enrolling Agency or Enrollment Agency** – Means the agency chosen by the Government for *enrolment of subscribers*.
- Presently, CSC-SPV and State Nodal Officers (SNOs) or agency chosen / nominated by them is the enrolling agency.
- **Family Pension** – If a subscriber passes away while receiving their pension, their spouse will be entitled to a family pension equal to 50% of the amount the subscriber was receiving (Rs.1500 per month as Family Pension).
- This is only applicable if the spouse is not already a beneficiary of the scheme.
- The family pension benefit is exclusively for the spouse.
- Under the scheme, **Bihar leads with over 3.4 lakh registrations** while **Jharkhand** ranks second with over 2.5 lakh registrations.

3. c

### **Pomegranate (Punica granatum L)**

*The Agricultural and Processed Food Products Export Development Authority (APEDA) recently facilitated the first consignment of Indian pomegranates from Mumbai to Melbourne, Australia.*

- Pomegranate (*Punica granatum L*) is an important fruit crop of arid and semi-arid regions.
- It has ability to withstand harsh climate and tolerate heat, drought and moisture deficit situations.
- Pomegranate has high medicinal and nutritional value and one of the richest sources of antioxidants.
- It is recommended for patients suffering from gastric troubles.

*Arid region is characterized by high temperature, low and erratic rainfalls with frequent drought, soils are poor in availability of nutrients and water holding capacity.*

- **Exotic varieties** – Wonderful, Granada and early wonderful are the exotic varieties found across the world.
- **Soil** – Pomegranate can be grown on a wide range of soils from sandy soil to sandy loam soil.
- Light soil with pH range 6.5 to 7.0 is highly suitable for its cultivation.
- However, it can tolerate pH up to 8.5 under proper management practices.
- **Propagation** – Pomegranate is commercially propagated through **stem cutting and air layering**.
- Air-layering is commonly used for propagation of pomegranate in the South India and hardwood cutting in the rest of India.
- **Air layering**, also known as **marcotting**, is a technique for propagating new plants by stimulating roots to form on the stem of a parent plant.
- A **hardwood cutting** is a technique in which a stem is taken from a mature, dormant plant in the winter or early spring to propagate new plants.
- **Production** – India is one of the major producers of pomegranate with **largest acreage in the world**.

*India, being the second-largest producer of horticulture crops, sees major pomegranate production in states like Maharashtra, Gujarat, Karnataka, Rajasthan and Andhra Pradesh.*

- It is **grown commercially** in the states of Maharashtra, Gujarat, Karnataka, Andhra Pradesh, Tamil Nadu, Madhya Pradesh and Rajasthan.

- **India is the only country in the world where pomegranate is available throughout the year** (January – December).
- **Maharashtra** is the leading state with 65.51% of the area and 64.61% of total production under pomegranate.
- **Economic Importance** – A number of processed products such as juices, squash, jelly, anardana and mouth freshener are prepared by processing fruit.
- Among all forms, canned slices and juice are in much demand in India, constituting about 70% of the production.
- APEDA has established **Export Promotion Forums (EPF)** specifically for pomegranates, aimed at boosting exports and removing supply chain bottlenecks.

4. a

#### International Labour Organization (ILO)

- International Labour Organization (ILO) does promote social justice & decent work globally, its primary function is **not to provide financial assistance** or employment opportunities directly to developing nations.
- It primarily sets international labour, standards, promotes policies and provide technical assistance to Country.
- The **International Labour Organization (ILO) publishes the World Employment and Social Outlook Report**.
- The report analyses the effects of the crisis on employment, unemployment, and labour force participation at both global and regional levels.
- It also addresses issues related to job quality, informal employment, and working poverty.
- The report emphasizes the consequences of various crises on productivity, job quality, and employment opportunities, highlighting the potential threat these trends pose to social justice worldwide.
- The International Labour Organization establishes global labour standards through conventions that are ratified by its member states. These conventions **are not legally binding**.
- **International Labour Rights Forum** is a non-profit organization that brings strategic capacity to cross-sectoral work on global value chains and labour migration corridors.

5. b

#### ABMN (Annapeticenturam, Bavana Katukkay, Matulai manappaku and Nellikkay lekiyam)

*The researchers has recently found that ABMN, a combination of Siddha drug treatment can improve the level of Haemoglobin.*

- The treatment, called ABMN, is a combination of four Siddha drugs that include Annapeticenturam, Bavana Katukkay, Matulai manappaku and Nellikkay lekiyam.
- Researchers from Siddha institutions, including the National Institute of Siddha (Ministry of Ayush), Xavier Research Foundation, and Velumailu Siddha Medical College & Hospital conducted the study about ABMN treatment.
- The study involved 2,648 girls, with 2,300 completing the 45-day program.
- Participants were first dewormed with Cuntaivarral curanam before starting the ABMN treatment.
- Researchers evaluated clinical features of anaemia and conducted laboratory tests before and after treatment.
- The WHO guidelines were used to classify anaemia severity based on haemoglobin levels.
- A subset of 283 girls underwent more detailed laboratory investigations.
- The study found that the ABMN treatment improved the following:
  - ABMN treatment improved haemoglobin levels,
  - PCV - Packed cell volume,
  - MCV - Mean Corpuscular Haemoglobin, and
  - MCH - Mean Corpuscular Haemoglobin in the anaemic adolescent girls.
- ABMN treatment also reduced clinical symptoms of anaemia.

**14-09-2024**

1) Krakatoa, sometimes seen in the news recently, is situated at?

- a. Indonesia
- b. Thailand

- c. India
- d. Australia

2) Consider the following statements:

1. Indian Maritime Centre (IMC) is an apex advisory body for the development of the maritime sector.
2. National Maritime Heritage Complex serve as an international tourist destination, showcasing India's rich maritime heritage through advanced technology.
3. Maritime State Development Council (MSDC) is a policy think tank designed to bring together maritime stakeholders currently operating in silos.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

3) International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI), sometimes seen in the news recently, works under the aegis of?

- a. Ministry of Science and Technology
- b. Ministry of Steel
- c. Ministry of Mines
- d. Ministry of Earth Sciences

4) The organisms "Tricolored Munia, Yellow Bittern and Lesser Whistling Thrush are:

- a. Birds
- b. Insects
- c. Reptiles
- d. Fish

- Krakatoa is a Group of four islands in the Sunda Strait between Sumatra and Java in **Indonesia**.
- It is considered the first 'global disaster' due to telegraph spreading news worldwide.
- It is situated at the Indo-Australian plate subducts under Eurasian plate
- The Area is prone to large earthquakes and tsunamis.
- It has generated tsunamis reaching South Asia, East Africa, and Western Australia.
- Krakatoa remains active and can potentially erupt again.

2. a

### Maritime State Development Council (MSDC)

*20th Maritime State Development Council (MSDC) was recently concluded in Goa.*

- Maritime State Development Council (MSDC) is an **apex advisory body for the development of the maritime sector**.
- It aims to ensure integrated development of Major and non-Major Ports.
- The MSDC was **constituted in May 1997** to assess in consultation with State Governments, the future development of existing and new Minor Ports by the respective Maritime States either directly or through captive users and private participation.
- MSDC also monitors the development of minor ports, captive ports and private ports in the Maritime States with a view to ensure their integrated development with Major Ports.
- MSDC launched the **National Safety in Ports Committee (NSPC)** application on the National Single Window System platform.
- **Indian Maritime Centre (IMC)** is a **Policy Think Tank** designed to bring together maritime stakeholders currently operating in silos.
- IMC will foster innovation, knowledge sharing, and strategic planning, driving growth and development across India's maritime sector.
- **National Maritime Heritage Complex serve as an international tourist destination**, showcasing India's rich maritime heritage through advanced technology.

## Answers

1. a

**Krakatoa**

- **Indian International Maritime Dispute Resolution Centre (IIMDRC):**
- IIMDRC is a **specialized platform** that will offer **merit-based and industry-governed solutions** to resolve maritime disputes efficiently.
- It can address the multi-modal, multi-contract, multi-jurisdictional, and multi-national nature of maritime transactions.
- IIMDRC positions India as a global hub for arbitration, aligning with the "Resolve in India" initiative.

3. a

### **International Advanced Research Centre for Powder Metallurgy & New Materials (ARCI)**

*Scientists have recently found a low-cost solution called nanosecond laser surface texturing to increase lubrication of the moving parts within the engine can enhance engine performance.*

- ARCI was established in 1996-97 that focuses on application-oriented, industry-centric R&D.
- It's an **autonomous Research and Development Centre** that works under aegis of the Department of Science and Technology (DST), **Ministry of Science and Technology**.
- The main campus is situated in **Hyderabad**, covering about 95 acres, with additional operations in Chennai and Gurugram.
- It is Organized into Centres of Excellence (COEs) in various materials-related fields, including:
  - Nanomaterials
  - Ceramics
  - Engineered coatings
  - Fuel cells
  - Carbon materials
  - Sol-gel coatings
  - Laser materials processing
  - Solar energy materials
  - Automotive energy materials
- ARCI develops advanced materials-based technologies and undertakes sponsored projects for government agencies.

- It conducts contract research for Indian and foreign companies.
- It performs basic R&D, often in collaboration with renowned institutes worldwide.
- ARCI Provides testing, production characterization, consultancy, training, and literature/patent searches in areas of core competence.
- Has transferred technologies to over 46 companies and developed about 250 technological solutions for industrial and strategic sectors.
- Emphasizes multi-disciplinary inputs to support targeted development efforts.

4. a

### **Tricolored Munia, Yellow Bittern and Lesser Whistling Thrush**

*For the first time, a Biodiversity Survey was conducted at Avalahalli Lake, Yelahanka, involving 25 naturalists and birders from across Bengaluru.*

- They identified about 60 bird species, as well as butterflies dragonflies, damselflies and 40 plant species at the survey conducted at Avalahalli Lake, Yelahanka.
- Bird species include the **Lesser Whistling Thrush**, Bronze-winged Jacana, **Yellow Bittern**, rare Cinnamon Bittern, **Tricolored Munia** and Red Avadavat.
- Notable butterfly species include: Grass Yellow, Lime Blue, Apefly, Common Four-ring, Chocolate Pansy, and Castor.
- The very purpose of saving this lake is to support the rich potential of birds and flora.
- The lake still has scope for improvement.

**16-09-2024**

1) Consider the following statements with respect to Commission for Scientific and Technical Terminology (CSTT)

1. It was set up in 1960 by a resolution under the Article 344.
2. It aims to evolve and define scientific and technical terms in Hindi and all Indian languages.
3. It works under the aegis of the Ministry of Science and Technology.

How many of the statements given above are correct?

- Only one
- Only two
- All three
- None of the above

2) Consider the following statements with respect to Bharat Start-up Knowledge Access Registry (BHASKAR) Initiative

- The primary goal of it is to build the world's largest digital registry for stakeholders within the start-up ecosystem.
- It is an initiative of the Ministry of Commerce and Industry.

Which of the above statement(s) is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

3) Consider the following statements with respect to Centre for Rural Enterprise Acceleration through Technology (CREATE)

- The scheme seeks to increase employment, reduce poverty and promote innovation in rural regions across India.
- It is an initiative of the Ministry of Rural Development.

Which of the above statement(s) is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

4) Onitis Visthara, sometimes seen in the news recently, is associated with?

- A new species of dung beetle that was recently discovered.
- A technology that creates a real-time map of airport traffic.
- An amphibian that has the ability to retain juvenile or larval traits as adults.

d. AI-enabled autopilots to help control planes.

5) Consider the following statements with respect to Navika Sagar Parikrama II

- It is aimed at giving a boost to the usage of indigenous technology in Indian Navy.
- It aims to induct at least 75 new indigenous technologies/products into the Indian Navy.

Which of the above statement(s) is/are **incorrect**?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

## Answers

1. b

### Commission for Scientific and Technical Terminology (CSTT)

*Commission for Scientific and Technical Terminology (CSTT) has recently launched a unique website which provides technical terms in all 22 official Indian languages.*

- Commission for Scientific and Technical Terminology (CSTT) was set up on December 21, 1960 by a **resolution** of Union Government under the proviso to Clause (4) of **Article 344**. (**Statement 1 is correct**)
- It was set up with the *objective to evolve and define scientific and technical terms in Hindi and all Indian languages*. (**Statement 2 is correct**)
- The Objectives of it include:
  - To evolve technical terminology in all Indian languages.
  - To standardize terminology.
  - To propagate the use of standardized terminology.
  - To distribute terminology widely.
- It works under the aegis of the Ministry of Education**. (**Statement 3 is incorrect**)
- It also routinely publishes a large number of Text-Books and Monographs besides publishing quarterly journals named 'Vigyan Garima Sindhu' and 'Gyan Garima Sindhu'.

- CSTT has recently launched a unique website which provides technical terms in all 22 official Indian languages.
- The web portal 'shabd.education.gov.in' aims to be a central repository for all the terminologies prepared for Indian languages.
- Through this platform, the users are not only be able to search the equivalent terms of scientific and technical terminology in Indian languages but also be able to register their feedback for the equivalents already prepared by the CSTT.
- As of now, a total of 322 glossaries with around 22, 00,000 words are currently available on search in the portal.

2. c

### Bharat Start-up Knowledge Access Registry (BHASKAR)

The Ministry of Commerce and Industry is all set to launch BHASKAR initiative which will serve as a central hub for key stakeholders within the entrepreneurial ecosystem.

- Bharat Start-up Knowledge Access Registry (BHASKAR) is an initiative under the Start-up India program.
- The primary goal of BHASKAR is to build the **world's largest digital registry** for stakeholders within the start-up ecosystem.
- BHASKAR is a platform that is designed to centralize, streamline, and enhance collaboration among key stakeholders within the entrepreneurial ecosystem.
- The entrepreneurial ecosystem include start-ups, investors, mentors, service providers, and government bodies.
- It is an **initiative of the Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry.**
- The initiative aligns with the India's vision to transform India into a global leader in innovation and entrepreneurship, reinforcing the country's commitment to the start-up movement.
- **Key Features of BHASKAR:**
- It will bridge the gap between start-up s, investors, mentors, and other stakeholders, allowing for seamless interaction across sectors.
- By consolidating resources, the platform will provide start-up s with immediate access to

critical tools and knowledge, enabling faster decision-making and more efficient scaling.

- Every stakeholder will be assigned a unique BHASKAR ID, ensuring personalized interactions and tailored experiences across the platform.
- Through powerful search features, users can easily locate relevant resources, collaborators, and opportunities, ensuring faster decision-making and action.
- BHASKAR will serve as a vehicle for promoting India's global reputation as a hub for innovation, making cross-border collaborations more accessible to start-up s and investors alike.



3. d

### Centre for Rural Enterprise Acceleration through Technology (CREATE)

- Centre for Rural Enterprise Acceleration through Technology (CREATE) aims to drive rural industrialization and support local artisans in **Ladakh** and **not across India.** (Statement 1 is incorrect)
- CREATE is an **initiate of the Ministry of Micro, Small and Medium Enterprises.** (Statement 2 is incorrect)
- Centre for Rural Enterprise Acceleration through Technology (CREATE) is a new initiative designed to boost local productivity and economic potential in Ladakh.
- The CREATE will focus on:
  - Pashmina Wool Roving Facility
  - Essential Oil Extraction Training
  - Bio-processing Training
- **Pashmina Wool Roving Facility:**

- CREATE will feature a state-of-the-art facility for processing Pashmina wool.
- This facility, already equipped and operational, is expected to enhance the quality and quantity of Pashmina wool production in Ladakh.
- **Essential Oil Extraction Training:**
- The centre will also offer training programs for producing essential oils from roses and other flowers.
- This will enable local entrepreneurs to enter the growing market for natural and organic products.
- **Bio-processing Training:**
- CREATE will provide training for bio-processing fruits and other raw materials.
- This will help add value to local produce and open up new business opportunities.

4. a

### Onitis Visthara

*Researchers at the Ashoka Trust for Research in Ecology and the Environment have reported three new species (Onitis bhomorensis, Onitis kethai and Onitis visthara) of dung beetle from Assam and Karnataka.*

- Dung beetle (subfamily Scarabaeinae) are any of a group of beetles in the family Scarabaeidae (insect order Coleoptera) that forms manure into a ball using its scooper like head and paddle-shaped antennae.
- They are usually round with short wing covers (elytra) that expose the end of the abdomen.
- These play an **essential role in nutrient cycling**, soil aeration and seed dispersal, making them integral to maintaining healthy ecosystems.
- This type of beetles are crucial for nutrient cycling and maintaining ecosystem health by aiding in the decomposition of dung.
- Dung beetles can eat more than their own weight in 24 hours and are considered helpful to humans because they speed up the process of converting manure to substances usable by other organisms.
- Researchers at the Ashoka Trust for Research in Ecology and the Environment (ATREE) have recently reported **3 new species** of dung beetle from **Assam and Karnataka**.
- The 3 new species are:

- Onitis bhomorensis (from Assam) and Onitis kethai and Onitis visthara (from Karnataka).

- **Onitis visthara:**

- **Onitis species are tunnellers**, they bury large quantities of cattle dung beneath the dung pat to provide food for their larvae.
- Onitis was a “relatively rare” genus found in the Afrotropical, Oriental, and Palearctic regions.
- Onitis visthara is named for its relatively broader appearance (visthara is breadth in Kannada).

5. c

### Navika Sagar Parikrama II

- Navika Sagar Parikrama II is an upcoming **extraordinary sailing expedition by the Indian Navy**, where two women officers will circumnavigate the globe. **(Both statement 1 and 2 is incorrect)**
- **Participants** – Two Indian Navy women officers - Lt Cdr Roopa A and Lt Cdr Dilna K.
- The officers were part of a six-member crew that participated in a trans-oceanic expedition from Goa to Rio de Janeiro, Brazil, via Cape Town, South Africa, and back.
- **INSV Tarini** – The circumnavigation will be done on-board INSV Tarini.
- **Nature of the expedition** – It involves sailing around the world, which is described as a gruelling voyage requiring extreme skills, physical fitness, and mental alertness.
- The officers have been preparing for this expedition for the last 3 years.
- **Training** – The officers are being trained under the mentorship of Cdr Abhilash Tomy (Retd.), KC, NM, who is described as an ace circumnavigator and Golden Globe Race hero.
- **Significance** – This expedition is seen as a significant step forward in India's ocean sailing enterprise and maritime endeavours.
- It showcases the nation's growing prominence in global maritime activities and commitment to gender equality on the high seas.
- **Logo** – A special logo was unveiled for this expedition.
- It features symbolic elements such as an octagonal shape representing the Indian Navy, the sun as a celestial body, a compass for



guidance, and a sailboat symbolizing the spirit of adventure and resilience.

**17-09-2024**

1) Consider the following statements with respect to National Test House

1. It is a premier scientific institution that plays a pivotal role in the development of indigenous industries.
2. It was founded by the Jawaharlal Nehru.
3. It is a subordinate office under the administrative control of Department of Consumer Affairs and acts as a certification body for drones.

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

2) Consider the following statements with respect to Typhoon Yagi

1. Typhoon Yagi is a tropical cyclone that first made landfall in the Philippines.
2. Operation Sadbhav is an initiative by India to send urgent supplies to countries affected by it.

Which of the above statement(s) is/are incorrect?

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

3) Consider the following statements with respect to Rashtriya Vigyan Puraskar (RVP)

1. The objective of it is to recognise the notable and inspiring contribution made by the scientists, technologists and innovators individually.
2. It has replaced the Shanti Swarup Bhatnagar (SSB) that was traditionally given to outstanding scientists younger than 45 years of age.

3. Only Indian citizen are eligible under this award.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

4) Consider the following statements with respect to Amolops Formosus

1. It is a butterfly species that are associated with higher plants, especially flowering plants.
2. It is endemic to Himalayas.
3. It is accorded 'Least Concern' status in the International Union for Conservation of Nature Red List of Threatened Species.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

5) Tian-Shan are mountain ranges, sometimes seen in the news recently, is situated in?

- a. Eastern Europe
- b. North America
- c. Central Asia
- d. South part of South America

## Answers

1. c

### National Test House

*The Quality Council of India has recently provisionally approved National Test House as a Certification Body for the type certification of drones under the Certification Scheme for Unmanned Aircraft Systems.*

- National Test House (NTH) was **established in 1912** in Alipore, Kolkata, originally under the Railway Board. **(Statement 2 is incorrect)**

- It is now a premier scientific institution under the Department of Consumer Affairs.
- It is a **subordinate office under the administrative control of Department of Consumer Affairs**, Ministry of Consumer Affairs, Food & Public Distribution.
- National Test House has its **Headquarters at Kolkata** and has a network of 6 regional offices at Kolkata, Mumbai, Chennai, Ghaziabad, Jaipur and Guwahati.
- **Functions of NTH:**
  - **Certification Body for drones** – NTH, specifically its Northern Region branch in Ghaziabad, has been provisionally approved by the Quality Council of India (QCI) as a Certification Body for type certification of drones.
  - **Ensuring compliance** – NTH is tasked with evaluating drone models to ensure they comply with applicable national and international standards.
  - **Testing and evaluation** – Conducts testing and evaluation of materials, products, equipment, and systems across various scientific and technological fields, excluding pharmaceuticals and arms & ammunition.
  - **Calibration** – Provides calibration services in electrical and non-electrical measurements with traceability to national standards.
  - **On-site testing** – Performs on-site testing and calibration at customer premises.
  - **Certification** – Certifies welders under the Central Authority for Testing and Certification of Welders.
  - **R&D support** – Aids industries and user organizations with research and development work in test engineering.
  - **Accreditation** – Assists the National Accreditation Board for Testing & Calibration Laboratories (NABL) in accrediting testing and calibration laboratories.
  - **Arbitration** – Acts as an independent reference laboratory for resolving disputes related to quality compliance.
  - **Impact on Indian Industry** – NTH's affordable certification services reflect its commitment to fostering innovation and growth in the drone sector.
  - **Supporting the Certification Scheme for Unmanned Aircraft Systems (UAS)** –

NTH plays a vital role in implementing this scheme, which is part of the Drone Rules 2021.

2. c

### Typhoon Yagi

*Recently, countries such as Vietnam, Laos and Myanmar were devastated by Typhoon Yagi.*

- A tropical cyclone is a **rapidly rotating storm** that begins over tropical oceans and they can vary in speed, size, and intensity.
- Tropical cyclones are also called hurricanes or typhoons, depending on the region.
- According to the World Meteorological Organization, Tropical cyclones are the **second-most dangerous** natural hazards, after earthquakes.
- **Formation** – The tropical cyclones form over warm ocean waters near the equator, where the rising warm, moist air creates low pressure, leading to the development of clouds and winds.
- The **typhoon first made landfall in the Philippines**, where it claimed the lives of over a dozen people.
- **Impact** – It significantly affected countries such as the Philippines and Japan, causing widespread disruption and damage in these regions.
- It was **classified as a Category 5 typhoon** at its peak intensity.
- **Damage** – Typhoon Yagi caused severe disruptions, including damages to infrastructure and maritime activities.
- Such typhoons typically lead to port closures, shipping delays, and damage to coastal infrastructure.
- **Operation Sadbhav** is an initiative by **India** to send urgent supplies to the countries such as Vietnam, Laos and Myanmar devastated by Typhoon Yagi.

3. c

### Rashtriya Vigyan Puraskar (RVP)

- Rashtriya Vigyan Puraskar is a **prestigious national-level award** in India, recognizing outstanding contributions in the field of science and technology.
- The award is organized and presented by the **Ministry of Science and Technology**.

- **Shanti Swarup Bhatnagar (SSB) Awards** – It has been replaced by the RVP and SSB was traditionally given to outstanding scientists younger than 45 years of age.
- The main differences between the SSB and RVP award processes are:
  - SSB was administered by the Council of Scientific and Industrial Research (CSIR) whereas RVP is administered by the government.
  - RVP has a different selection committee structure, including the Rashtriya Vigyan Puraskar Committee (RVPC).
- **Eligibility** – Scientists, researchers, and individuals who have made significant contributions to their respective fields in science and technology are eligible for the award.
- The award is specifically designed **only for Indian citizens** who have excelled in the domain of science and technology.
- It is given for **both individual and organization**.
- **Rashtriya Vigyan Puraskar Committee (RVPC)** is the apex body which subject advisory committees, which give their recommendation of nominated scientists and returns it to the RVPC.
- The **RVPC is chaired by the Principal Scientific Adviser (PSA)** to the Government of India.
- **Four categories** – The award is given in four categories such as:
  - **Vigyan Ratna (VR) award** to be awarded to recognize lifetime achievements & contributions made in any field of science and technology.
  - **Vigyan Shri (VS) award** to be awarded to recognize distinguished contributions in any field of science and technology.
  - **Vigyan Yuva- Shanti Swarup Bhatnagar (VY-SSB) award** to be awarded to recognize & encourage young scientists who made an exceptional contribution in any field of science and technology.
  - **Vigyan Team (VT) award** to be awarded to a team comprising three or more scientists/researchers/innovators who

have made an exceptional contribution working in a team in any field of science and technology.

- The Rashtriya Vigyan Puraskar shall be given in the following **13 domains**:
  - Physics
  - Chemistry
  - Biological
  - Sciences
  - Mathematics & Computer Science
  - Earth Science
  - Medicine
  - Engineering Sciences
  - Agricultural Science
  - Environmental Science
  - Technology & innovation
  - Atomic Energy
  - Space Science and Technology
  - Others
- **Benefits** – The awardees shall be presented a Sanad (certificate) signed by the President of India & a medallion.
- A commemorative brochure, containing the citation and photograph of the awardees shall also be released on the day of the ceremony.
- In case of posthumous award, the decoration of the award shall be received by the 'next of kin' of such awardee.
- The decoration to such persons who are not able to attend the award ceremony due to personal reasons (including indisposition, preoccupation, etc.) the award shall be deemed to have been conferred on such a person.
- No other person (including the spouse/next of kind) should be allowed to receive the award on behalf of the absentee awards except in posthumous cases.

4. a

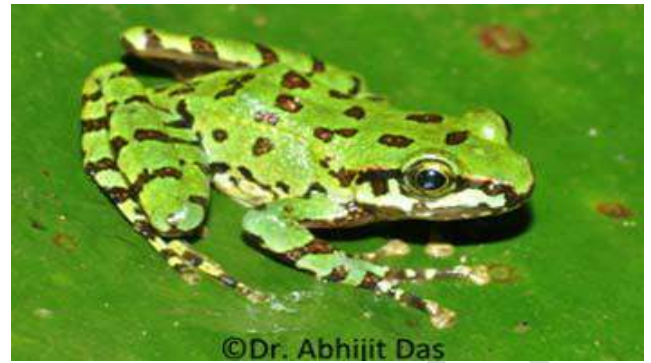
#### **Amolops Formosus**

*Scientists from the Wildlife Institute of India have recently studied the Amolops formosus to gain insights into how water flow impacts the presence and abundance of the species in Western Himalayan streams.*

- *Amolops formosus* is commonly known as the Assam cascade, Assam sucker frog, beautiful stream frog or hill stream frog.
- It is a **species of frog** found in high gradient streams of northern **India, northern Bangladesh and Nepal. (Statement 1 incorrect)**
- Since it is **found in Bangladesh**, which is not part of Himalayas it is **not endemic to Himalayas. (Statement 2 incorrect)**
- In India, it is recorded in the states such as Himachal Pradesh, Uttarakhand, Nagaland, Meghalaya, Arunachal Pradesh and Assam.



- They belong to the genus *Amolops* comprise 72 distinct species distributed throughout the hilly regions with fast-flowing streams in southern and Southeast Asia.
- *Amolops* are **highly adapted to fast-flowing hill streams** because they have adhesive disks on the tips of their digits with circum-marginal grooves that help them stick to rocks and other substrates.
- It is accorded **'Least Concern' status** in the International Union for Conservation of Nature Red List of Threatened Species.
- The species is **associated with streams and riparian vegetation within tropical evergreen forest.**
- Breeding takes place in streams and there is a continuing loss of suitable stream habitats, through both deforestation and changes in water management (dams).



5. c

### Tian-Shan or Tien Shan

*Melting glaciers in the recent times pose major threat to Central Asia.*

- Tien Shan is a great mountain system of **Central Asia** and its name is Chinese for "Celestial Mountains."
- It stretches about 1,500 miles (2,500 km) from west-southwest to east-northeast, it mainly straddles **the border between China and Kyrgyzstan** and bisects the ancient territory of Turkistan.
- It is bounded to the north by the Junggar (Dzungarian) Basin of north-western China and the southern Kazakhstan plains and to the southeast by the Tarim (Talimu) Basin.
- The tallest peaks in the Tien Shan are a central cluster of mountains forming a knot, from which ridges extend along the boundaries between China, Kyrgyzstan, and Kazakhstan.
- The area is home to thousands of glaciers that are melting at an alarming rate in Central Asia, already hard-hit by climate change.
- According to a report by the Eurasian Development Bank, **Tian-Shan and Pamir** are the two main mountain ranges in Central Asia that have melted over the last 60 years.
- The shrinking glaciers have also created a new threat for towns and cities in Kyrgyzstan with meltwater forming new lakes before tumbling down mountains in dangerous torrents.
- A growing appetite for immense natural resources in the region, including for gold, whose extraction with chemicals accelerates the melting of ice.
- Kyrgyzstan and Tajikistan have stepped up efforts to draw attention to a looming catastrophe.



**18-09-2024**

1) Consider the following statements with respect to National Institute for Smart Government (NISG)

1. It is as an institute of excellence in e-governance to assist governments for ushering in smart governance, process reforms and digitalization.
2. Union Minister of Electronics and Information Technology (MeIT) acts as the ex-officio chairman to it.
3. It is an autonomous organisation of MeIT that was set up in 2002.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

2) Consider the following statements with respect to Pharmaceuticals and Medical Devices Bureau of India (PMBI)

1. It is the implementing agency of Pradhan Mantri Bhartiya Janaushadi Pariyojana (PMBJP).
2. It was established in December, 2008 as an independent society under the Societies Registration Act 1860.

Which of the above statement(s) is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2

d. Neither 1 nor 2

3) Consider the following statements with respect to Dak Ghar Niryat Kendra

1. It is an initiative that aims to promote commercial exports across the country.
2. DNK portal has been integrated with Export Data Processing & Monitoring System (EDPMS) of RBI to streamline data flow between them.
3. It is an initiative of Ministry of Commerce and Industry.

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

4) Rangeen Machhli Application, sometimes seen in the news recently, is associated with?

- a. Provides multilingual information on popular ornamental fish species.
- b. Monitors complaints related to consular services.
- c. Provides in-depth information on three new Criminal Acts.
- d. To adopt the best practices of the Parliament and other Legislative Assemblies of the country.

5) Consider the following statements with respect to Karam / Karma Festival

**Statement-I:** It is a festival of agriculture and is very sacred to the tribal people of Bihar, Madhya Pradesh, Chhattisgarh, Jharkhand and Assam.

**Statement-II:** The festival involves the worship of Karam devta, the god of power, youth and youthfulness.

Select the correct answer using the codes given below:

- 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

## Answers

1. a

### National Institute for Smart Government (NISG)

The second regional programme of this series focused on 'Digital Public Infrastructure' was recently launched by the National e-Governance Division of MeitY, in partnership with the National Institute for Smart Governance (NISG).

- National Institute for Smart Government (NISG) was registered under the Company Act as a Section 25 **not-for-profit company** in May 2002 with its headquarters at Hyderabad. (**Statement 3 is incorrect**).
- It was set up by the Government of India on a *Public-Private-Partnership (PPP) model*.
- The Secretary to the Ministry of Electronics and Information Technology (MeitY) acts as its Chairman. (**Statement 2 is incorrect**)
- **Objectives** – Aims to usher in smart governance and improve government processes.
- Focuses on establishing service delivery systems for faster and simpler services to citizens and businesses.
- **Roles and functions** – Acts as an *advisory and consulting body*, combining private sector efficiency with public sector accountability.
- It has played a key role in the design and implementation of several mission mode projects (MMP) in India.
- Few projects include MCA-21, Passport Seva Project, UID (Aadhaar), commercial taxes, immigration, health and agriculture.
- **Shareholding** – Structured on a public-private partnership (PPP) model with 49% of NISG's equity is held by the central government and various state governments and 51% is held by institutional investors.
- NASSCOM, Government of India and Government of Andhra Pradesh are the **main promoters** of the Company.
- Government of Chhattisgarh, Government of Meghalaya, Vizag Municipal Corporation, and

Infrastructure Leasing and Financial Services being the other stakeholders.

2. c

### Pharmaceuticals & Medical Devices Bureau of India (PMBI)

PMBI and Coal India Limited have recently signed a MoU to provide high-quality generic medicines through establishment of Jan Aushadhi Kendras across Coal India premises.

- Pharmaceuticals & Medical Devices Bureau of India (PMBI) is the **implementing agency** of Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP).
- PMBI was established in December, 2008 under the Department of Pharmaceuticals, Government of India.
- The Bureau has been registered as an **independent society** under the societies registration act 1860 as a separate independent legal entity in April, 2010.
- PMBI follows the provisions of General Financial Rules, 2017 as amended from time to time, the CVC guidelines and instructions from the Department of Pharmaceuticals.
- **Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP):**
- PMBJP was launched with an objective of **making quality generic medicines available at affordable prices to all**.
- It was **launched** by the Department of Pharmaceuticals, Ministry of Chemicals & Fertilizers and Government of India in November, **2008**.
- Under the scheme, dedicated outlets known as Janaushadhi Kendras are opened to provide generic medicines at affordable prices.
- Product basket of PMBJP comprises 2047 drugs and 300 surgical items.
- Through this scheme, awareness is conducted about generic medicines through education and publicity to counter the perception that quality is synonymous with high price only.
- This aids to generate employment by engaging individual entrepreneurs in opening of PMBJP Kendra.

3. a

### Dak Ghar Niryat Kendra

*Dak Ghar Niryat Kendra portal has now been successfully integrated with the Indian Customs Electronic Gateway, Indian Customs EDI System, Public Financial Management System and Export Data Processing & Monitoring System of RBI.*

- Dak Ghar Niryat Kendra is an initiative that aims to promote commercial exports across the country.
- It is an **initiative of the Department of Posts and Central Board of Excise and Customs. (Statement 3 is incorrect)**
- This initiative provides essential services including documentation assistance, market information, bar-coded label printing, and paperless customs clearance.
- It is set to bolster rural exports by supporting small-scale exporters.
- The Department aims to on-board 3000 new exporters onto the Dak Ghar Niryat Kendra Portal in 100 days.
- Through this initiative small exporters are able to electronically file a Portal Bill of Export and then present the parcel at Dak Ghar Niryat Kendra for export.
- **Dak Ghar Niryat Kendra (DNK) portal** has recently been successfully established with the following:
  - Indian Customs Electronic Gateway (ICEGATE),
  - Indian Customs EDI System (ICES),
  - Public Financial Management System (PFMS) and Export Data Processing & Monitoring System (EDPMS) of RBI.
- This integration will *streamline data flow* between DNK and systems of Customs and PFMS to automate IGST refund.
- The flow of data into EDPMS will *facilitate the issuance of electronic Bank Realization Certificates (e-BRC)* by authorized dealers (AD Banks).
- Exporters will gain improved visibility over their export transactions and payments, enhancing decision-making capabilities.
- Exporters utilising the DNK Portal must register their AD Code on the ICEGATE Portal and provide accurate bank account details to ensure timely IGST refunds and availing of e-BRC facility of banks.

- The registration process is vital for verifying bank details and facilitating direct credit of refunds.

4. a

### **Rangeen Machhli Application**

*The "Rangeen Machhli" app was launched recently that provides multilingual information on popular ornamental fish species in eight Indian languages.*

- The Rangeen Machhli App is an initiative to meet the growing needs of the ornamental fisheries sector.
- It provides the *crucial knowledge and important resources* for hobbyists, aquarium shop owners and fish farmers.
- **Developed by** – ICAR-CIFA (Indian Council of Agricultural Research, Central Institute of Freshwater Aquaculture) with support from the Pradhan Mantri Matsya Sampada Yojana (PMMSY).
- **"Find Aquarium Shops" tool** – Is a standout feature of the app that enables users to *discover nearby aquarium stores*.
- This dynamic directory is regularly updated by shop owners, promoting local businesses while providing users with reliable sources for ornamental fish and aquarium-related products.
- **"Basics of Aquarium Care"** – Is a module covers essential topics such as types of aquariums, fishes, water filtration, lighting, feeding, day to day maintenance.
- **"Ornamental Aquaculture"** – Is a module focuses on breeding, rearing of different ornamental fish.
- **Ornamental Fishes** – India boasts a rich diversity of ornamental fish, with over 195 indigenous varieties reported from the North-East Region and Western Ghats, and nearly 400 species from marine ecosystems.
- The majority of ornamental fish exported from India are wild varieties, primarily *collected from the rivers* of the North-East and Southern States, which contribute about *85% of the country's total ornamental fish exports*.
- Among the 195 reported species from the North-East, 155 are of ornamental value.
- The **Western Ghats**, one of the world's 34 'Biodiversity Hotspot' areas, is home to numerous freshwater fish species, 40 of which are of ornamental value, with *37 being endemic to the region*.

- **Pradhan Mantri Matsya Sampada Yojana** – A scheme to bring about ecologically healthy, economically viable, and socially inclusive development of the Fisheries sector of India.
- It is implemented by the *Department of Fisheries, Ministry of Fisheries, Animal Husbandry and Dairying*.
- It aids to bring about **Blue Revolution** through sustainable and responsible development of fisheries sector in India.

5. b

### Karam / Karma Festival

*Tribal populations in Jharkhand, West Bengal, Bihar, Madhya Pradesh, Chhattisgarh, Assam and Odisha celebrated the harvest festival of Karma or Karam festival recently.*

- Karam / Karma Festival is a festival of agriculture and is very sacred to the tribal people of Bihar, Madhya Pradesh, Chhattisgarh, Jharkhand and Assam.
- The festival is popular especially among the Munda, Ho, Oraon, Baiga, Kharia and Santhal peoples.
- **Karam tree** – Is the focus of the festival. The precise ways in which the tree is worshipped may differ slightly from region to region.
- **Karam Devta** – The festival involves the **worship of Karam devta**, the god of power, youth and youthfulness and the tribes believe that worshipping the deity *brings prosperity in their lives*.
- **Ekadashi tithi** – It is *traditionally celebrated on the Ekadashi tithi (eleventh day) of the lunar fortnight* in the month of Bhado/ Bhadra, which corresponds to August-September in the Gregorian calendar.
- **Karma dance** – It is also popularly known as **Karma Naachis** performed by the tribes of Jharkhand, Chhattisgarh, Madhya Pradesh, Bihar, Orissa and other regions of the country.
- This tribal dance is performed during the autumnal festival of Karma Puja.
- **Festival rituals** – Young women sow 7 types of grains in river sand before the festival.
- The Karam tree branch is planted in the courtyard or 'akhra' and a priest (pahan) performs worship.

- People sing and dance traditional Karam songs and the festival concludes with the immersion of the Karam branch in water
- **Cultural and agricultural significance** – The festival is closely tied to **agricultural practices**.
- It aligns with seasonal cycles and the beginning of agriculture in tribal communities.
- Celebrates the autumn rains and prays for a good harvest.
- Incorporates practices that may have practical benefits, such as planting Chirchitti and Sindwar as natural insecticides.

**19-09-2024**

1) Consider the following statements with respect to Coelacanths

1. They are deep-sea fish that live off the coasts of southern Africa and Indonesia.
2. Tectonic plate activity is the most significant factor influencing coelacanth evolution rates.

Which of the above statement(s) is/are correct?

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

2) Consider the following statements:

1. Chandrayaan-4 mission aims to collect rocks and soil from the lunar surface.
2. Chandrayaan-3 has demonstrated end-to-end capability in safe landing and roving on the lunar surface.
3. Vikram is one of the lander payloads of Chandrayaan-3 mission.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above



3) The revamped Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA) have the components of several existing schemes that include?

1. Price Support Scheme (PSS)
2. Micro Irrigation Fund Scheme (MIF)
3. Price Stabilisation Fund (PSF)
4. Minimum Support Price Scheme (MSP)
5. Price Deficit Payment Scheme (POPS)

Select the correct answer using the code given below:

- a. Only two
- b. Only three
- c. Only four
- d. All five

4) Consider the following statements with respect to 'Bio-RIDE' Scheme

1. The scheme will offer grants and incentives for cutting-edge research and development for biotechnological sector.
2. It will create synergies between academic institutions, research organizations and industry to accelerate the commercialization of bio-based products and technologies.

Which of the above statement(s) is/are **incorrect**?

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

5) Soorya, sometimes seen in the news recently, is associated with?

- a. Cash assistance for Gas connections with Renewable natural gas.
- b. An indigenous mobile operating system developed by NIC.
- c. Next Generation Launch Vehicle (NGLV) for Bharat.
- d. An operation to assist Myanmar which has been devastated by Typhoon Yagi.

## Coelacanth

*A new species of fossil coelacanth, named Ngamugawi wirngarri, was discovered on Gooniyandi Country in northern Western Australia.*

- Coelacanths are “lobe-finned” fish that live are elusive, deep-sea creatures, living in depths up to 2,300 feet below the surface.
- “Lobe-finned” fish have robust bones in their fins a bit like the bones in our arms.
- Scientists believe they are more closely related to tetra-pods (animals with backbones and four limbs, such as frogs, emus and humans) than to most other fishes.
- There are only 2 known species of coelacanths:
  - Species that lives near the Comoros Islands off the east coast of **Africa**.
  - Species that are found in the waters off Sulawesi, **Indonesia**.
- Coelacanths are the oldest known fossils which are more than 410 million years old.
- Later, during the age of dinosaurs which began around 250 million years ago, coelacanths became more diverse.
- In total, around traces of more than 175 fossil species from all over the globe have been found.
- At the end of the Cretaceous period, 66 million years ago, all signs of coelacanths mysteriously vanished from the fossil record.
- All that changed in 1938, when fisher people in South Africa pulled a large, enigmatic fish from the ocean depths that was like nothing they had seen before.
- A new species of fossil coelacanth, named Ngamugawi wirngarri, was discovered on Gooniyandi Country in northern Western Australia.
- This is the first fish in the area named using the Gooniyandi language, honoring a respected elder named Wirngarri.
- **Tectonic plate activity** was found to be the **most significant factor influencing coelacanth evolution rates**.

2. b

## Chandrayaan Mission

*The Cabinet has recently approved the Chandrayaan-4 Mission build on the success of Chandrayaan-3 mission.*

## Answers

1. c

- Chandrayaan-4 will be a remote mission seeking to retrieve samples of the lunar surface.
- The mission, which will aim to **bring rock samples from the lunar surface** back to Earth after a soft landing, is slated for launch in 2027.
- It will expand on the technology developed in Chandrayaan-3 by adding elements like lunar docking, **precision landing**, sample collection and a safe journey back to Earth.
- **Chandrayaan-3** – Is a follow-on mission to Chandrayaan-2 to *demonstrate end-to-end capability in safe landing and roving on the lunar surface.* (**Statement 2 is correct**)
- It consists of Lander and Rover configuration and it was launched by LVM3.
- The propulsion module has Spectropolarimetry of Habitable Planet Earth (SHAPE) payload to study the spectral and Polarimetric measurements of Earth from the lunar orbit.
- **Lander payloads include:**
  - Chandra's Surface Thermophysical Experiment (ChaSTE) to measure the thermal conductivity and temperature,
  - Instrument for Lunar Seismic Activity (ILSA) for measuring the seismicity around the landing site,
  - Langmuir Probe (LP) to estimate the plasma density and its variations and
  - A passive Laser Retroreflector Array from NASA is accommodated for lunar laser ranging studies.
- **Chandrayaan-2 mission** – Was a significant technological leap compared to the previous missions of ISRO.
- It comprised an Orbiter, Lander and Rover to explore the unexplored South Pole of the Moon.
- *Vikram is a lander of the Chandrayaan-2 mission.* (**Statement 3 is incorrect**)
- GSLV-Mk III was the launch vehicle of the mission.
- Chandrayaan-2's Rover was a **6-wheeled robotic vehicle** named as **Pragyan**, which translates to 'wisdom' in Sanskrit.

3.c

### Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA)

*Cabinet has recently approved continuation of Pradhan Mantri Annadata Aay SanraksHan Abhiyan scheme to provide remunerative prices to farmers and to control price volatility of essential commodities.*

- Pradhan Mantri Annadata Aay SanraksHan Abhiyan (PM-AASHA) is a budget scheme (2018) that aims to provide farmers a fair price for their produce.
- The revamped PM-AASHA aims to ensure fair prices for farmers and to regulate price fluctuations in essential commodities for consumers.
- The government has converged the Price Support Scheme (PSS) and Price Stabilisation Fund (PSF) schemes under PM-AASHA to serve farmers and consumers more effectively.
- The revamped PM-AASHA now includes components like:
  1. Price Support Scheme (PSS)
  2. Price Stabilisation Fund (PSF)
  3. Price Deficit Payment Scheme (PDPS)
  4. Market Intervention Scheme (MIS)
- **Micro Irrigation Fund Scheme (MIF) is not a component under the PM-AASHA.**
- **Price Stabilisation Fund (PSF)** – It protects consumers from sharp price spikes in agricultural and horticultural commodities by maintaining a strategic buffer stock of pulses and onions.
- The Department of Consumer Affairs (DoCA) will procure these items when market prices exceed the MSP, including from pre-registered farmers.
- This measure aims to **discourage hoarding**, reduce speculative trading, and ensure that essential commodities are available at affordable prices.
- **Price Deficit Payment Scheme (PDPS)** – The Union Government will cover up to 15% of the difference between the MSP and the sale or modal price, providing crucial support to farmers.
- **Market Intervention Scheme (MIS)** – The government has raised the coverage from 20% to 25% of production and introduced an option for direct differential payments to farmers, replacing the physical procurement process.
- This initiative will ensure farmers receive fair prices for their produce while stabilising prices for consumers.

4. d

### **Biotechnology Research Innovation and Entrepreneurship Development (Bio- RIDE)**

*The Union Cabinet has recently approved continuation of the two umbrella schemes by merging it into one scheme as 'Biotechnology Research Innovation and Entrepreneurship Development (Bio- RIDE).*

- Biotechnology Research Innovation and Entrepreneurship Development (Bio- RIDE) aims to accelerate research, enhance product development, and bridge the gap between academic research and industrial applications.
- Bio- RIDE is designed to foster innovation, promote bio-entrepreneurship, and strengthen India's position as a global leader in bio-manufacturing and biotechnology.
- The scheme is part of India's mission to harness the potential of bio-innovation to tackle various challenges such as healthcare, agriculture, environmental sustainability and clean energy.
- The scheme has 3 broad components:
  1. Biotechnology Research and Development (R&D)
  2. Industrial & Entrepreneurship Development (I&ED)
  3. Bio-manufacturing and Bio-foundry.
- The key features of the scheme include:
  - **Promote Bio-Entrepreneurship** – Bio-RIDE will nurture a thriving ecosystem for start-ups by providing seed funding, incubation support, and mentorship to bio-entrepreneurs.
  - **Advance Innovation** – The scheme will offer grants and incentives for cutting-edge research and development in areas like synthetic biology, biopharmaceuticals, bioenergy, and bioplastics.
  - **Facilitate Industry-Academia Collaboration** – Bio-RIDE will create synergies between academic institutions, research organizations, and industry to accelerate the commercialization of bio-based products and technologies.
  - **Encourage Sustainable Bio-manufacturing** – A significant focus will be placed on promoting environmentally sustainable practices in bio-manufacturing, aligned with India's green goals.
  - **Support researchers through Extramural funding** – Bio-RIDE will play critical role in advancing scientific research,

innovation, and technological development across diverse fields of biotechnology.

- **Nurturing Human Resource in Biotechnology sector** – Bio-RIDE will provide holistic development and support to students, young researchers and scientists working in the multidisciplinary areas of Biotechnology.
- The integrated programme of Human Resource Development will contribute towards the capacity building and skilling of the manpower.

5. c

### **Soorya**

*The Union Cabinet, led by Prime Minister Narendra Modi, has recently approved the development of the Next Generation Launch Vehicle (NGLV).*

- Soorya is the Next Generation Launch Vehicle (NGLV).
- It is designed to support India's goals of establishing the Bharatiya Antariksh Station (Indian Space Station) and achieving a crewed lunar landing by 2040.
- **Capabilities** – 3 times the payload capacity of the current LVM3 rocket.
- Only 1.5 times the cost of LVM3 and maximum payload capability of 30 tonnes to Low Earth Orbit (LEO).
- **Reusable first stage.**
- Incorporates modular green propulsion systems
- **Applications** – The NGLV will support various missions, including:
  - Launches for the Bharatiya Antariksh Station.
  - Lunar and interplanetary exploration.
  - Communication and earth observation satellite constellations.
- **Impact** – This project is expected to significantly boost India's space ecosystem in terms of capability and capacity.
- **Current capabilities** – India currently has self-reliance in launching satellites up to 10 tonnes to LEO and 4 tonnes to Geo-Synchronous Transfer Orbit (GTO) using PSLV, GSLV, LVM3 and SSLV launch vehicles.

**20-09-2024**

1) Consider the following statements with respect to UN Inter-Agency Task Force Award

1. It is a non-monetary award which is given to individuals, groups, and organizations for their human rights work.
2. The 2024 award was given to the Indian Council of Medical Research (ICMR) for its work in advancing multi-sectoral action on mental health.

Which of the above statement(s) is/are correct?

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

2) Consider the following statements with respect to Vultures

1. The Egyptian vulture (*Neophron percnopterus*) is the only vulture in Europe that is globally endangered.
2. 'Nature Walk and Vulture Observation' is an initiative of Ministry of Environment, Forest and Climate Change (MoEFCC).
3. Ramadevarabetta Vulture Sanctuary is situated at Bengaluru, Karnataka.

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) Consider the following statements with respect to Indus Waters Treaty (IWT)

1. India gets right of unrestricted use over the Eastern Rivers while Pakistan is entitled to unrestricted use of the Western rivers.
2. Permanent Indus Commission (PIC) is mandated to meet every year to resolve differences on the sharing of river water between both countries.

Which of the above statement(s) is/are correct?

- a. 1 only
- b. 2 only

c. Both 1 and 2

d. Neither 1 nor 2

4) Consider the following statements with respect to Global Food Regulators Summit (GFRS), 2024

1. It aids to facilitate the exchange of knowledge and information about food product regulatory frameworks and safety requirements across various countries.
2. It is organised by the Food Safety and Standards Authority of India (FSSAI) under the aegis of the Union Health and Family Welfare ministry.

Which of the above statement(s) is/are correct?

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

## Answers

1. b

### UN Inter-Agency Task Force Award

- The Award recognizes the achievements on **multi-sectoral action in the prevention and control of NCDs, mental health.** (Statement 1 is incorrect)
- The awards recognize achievements made during 2023.
- The **2024 award was given to the Indian Council of Medical Research (ICMR)** for its work in advancing multi-sectoral action on mental health.
- **New partnership** – In 2024, the Task Force is collaborating with the WHO Department of Health Products Policy and Standards.
- The awards **now include recognition for work in assistive technology.**
- There are 3 categories for nominations:
  - Ministries of health and government health agencies.
  - Ministries and government agencies outside health.
  - Non-governmental organizations, academia and foundations.

- Criteria for nominations:
- Nominees should demonstrate outstanding contributions in:
  - Preventing and controlling NCDs.
  - Promoting and accelerating equitable access to assistive technology.
  - Specific qualities sought in nominees:
  - Innovation in approaches and activities
  - Leadership and partnership skills
  - Resource mobilization abilities
  - Overcoming challenges and obstacles
  - Serving as an exemplar to others

2. c

## Vultures

*The Karnataka Forest Department and Karnataka Vulture Conservation Trust have recently organised the 'Nature Walk and Vulture Observation' to build awareness of the birds.*

- Vultures are widely distributed globally, but they are absent from Australia and most oceanic islands.
- India has **9 species of vultures**.
- Of these, four including long-billed, white-rumped, red-headed and Egyptian vultures can be seen in Karnataka.
- **Ramadevarabettu Vulture Sanctuary** is situated at Bengaluru, Karnataka.
- In Ramadevarabettu, the permanent residents include the critically endangered long-billed vulture and the endangered Egyptian vulture.
- Himalayan Griffon and Eurasian Griffon visit the region in winter.
- The **Egyptian vulture** (*Neophron percnopterus*) is the only vulture in Europe that is globally endangered.
- The Egyptian Vulture is the world's only tool-using vulture and Europe's smallest and only true long-distance migratory vulture.
- The species is considered globally endangered and is the only European vulture whose population is declining.
- **The Karnataka Forest Department and Karnataka Vulture Conservation Trust**

**organised the 'Nature Walk and Vulture Observation'.** (Statement 2 is incorrect)

- It aims to build awareness of the birds whose population in India declined by a staggering 99% between the 1980s and early 2000s.

3. c

## Indus Waters Treaty (IWT)

- The Permanent Indus Commission (PIC), created by the treaty, mandates annual meetings between the two countries to address issues like water-sharing, hydropower projects, and ecological data.
- **Current Status of PIC** – India has decided not to attend PIC meetings until both governments renegotiate the IWT.
- **India's Position** – India is pushing for renegotiation of the 64-year-old treaty due to changes in population demographics, environmental concerns (need for clean energy), and issues like cross-border terrorism.
- India believes that only governments, not the PIC, can renegotiate the treaty.
- **Dispute Resolution** – The dispute resolution mechanism has been a major point of contention, particularly since 2005, due to differing interpretations.
- India insists that each step (starting with the PIC) must be exhausted before moving on, while Pakistan moved to a Court of Arbitration without waiting for India's concurrence.
- The World Bank initially agreed that using a neutral expert and a court simultaneously could cause contradictions but later facilitated both mechanisms.
- **Water Allocation** – The treaty allocates water from the Beas, Ravi, and Sutlej (eastern rivers) to India and the Chenab, Indus, and Jhelum (western rivers) to Pakistan.
- India is allowed limited irrigation and non-consumptive use of water from the western rivers.

4. c

## Global Food Regulators Summit (GFRS), 2024

- Global Food Regulators Summit (GFRS), 2024 aims to foster international collaborations and knowledge-sharing on food safety and regulatory issues.
- The first edition of this summit was held in July 2023 in India as a co-branded event of G20.

- **Objectives** – To facilitate the exchange of knowledge and information about food product regulatory frameworks and safety requirements across various countries.
- To promote a common dialogue on critical aspects such as food safety, risk assessment, analytical competence and capacity-building initiatives.
- It will also engage a diverse range of stakeholders from the food value chain, including food manufacturers, processors, government officials, and non-governmental organizations, in discussions about the global landscape of food safety and regulatory compliance.
- **Participation** – More than 70 countries are expected to participate in this summit to discuss and prepare strategy on key regulatory issues.
- **State Food Safety Index 2024** – Will be soon introduced by the Food Safety and Standards Authority of India (FSSAI).
- It assesses the food safety performance of States and Union Territories.

1. It is a reference that measures the commitment of countries to cybersecurity at a global level which is published by the International Telecommunication Union (ITU).
2. India has attained Tier 1 status in the Global Cybersecurity Index (GCI) 2024.
3. According to GCI 2024, the China has advanced the most on cybersecurity since 2021.

How many of the statements given above are **incorrect**?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

3) Consider the following statements with respect to National Centre for Good Governance (NCGG)

1. It is an apex-level autonomous institution under the Ministry of Personnel, Public Grievances and Pensions.
2. Prime Minister of India is the ex-officio Chairperson of the organisation.
3. It is mandated to work in the areas of governance, policy reforms, capacity building and training of civil servants and technocrats of India.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

4) Consider the following statements:

1. Cleanliness Target Unit (CTU) refers to severely neglected, high-risk areas like garbage points or dumpsites.
2. CTU is a component under the Swachha Bharat Mission that aims at the time-bound transformation of target units and general cleanliness.
3. Safai Mitra Suraksha Shivirs is an initiative to promote public participation, awareness and advocacy.

How many of the statements given above are correct?

### 21-09-2024

1) Consider the following statements with respect to Damodar Valley Reservoir Regulation Committee (DVRRC)

1. All releases of the four dams such as Maithon, Panchet, Tillaiya and Konar are as advised by the Damodar Valley Reservoir Regulation Committee (DVRRC).
2. It is a multi-stakeholder committee with representatives from the Damodar Valley Corporation, Central Water Commission and Governments of Jharkhand and West Bengal.
3. Damodar Valley Corporation is the first multipurpose river valley project of independent India.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

2) Consider the following statements with respect to Global Cybersecurity Index (GCI), 2024

- Only one
- Only two
- All three
- None of the above

5) Operation Bhediya, sometimes seen in the recently, is an initiative of?

- Forest Department
- Indian Army
- Directorate of Revenue Intelligence
- Railway Protection Force

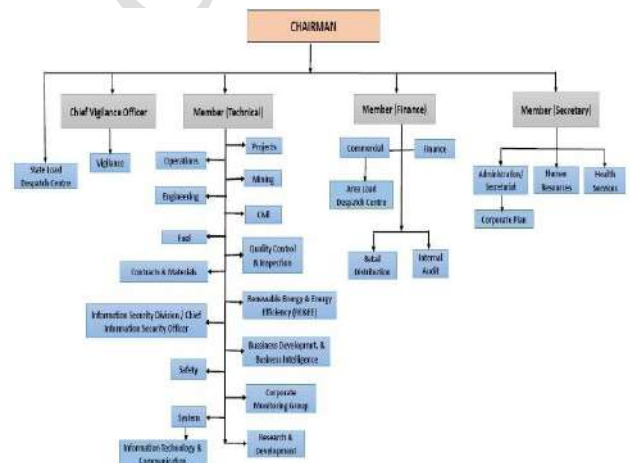
## Answers

1. c

### Damodar Valley Reservoir Regulation Committee (DVRRC)

- The Damodar Valley Reservoir Regulation Committee (DVRRC) is primarily responsible for the regulation and management of water resources within the Damodar Valley region.
- DVRRC is a multi-stakeholder committee, with representatives from:
  - Government of West Bengal**
  - Government of Jharkhand**
  - Central Water Commission**
  - Damodar Valley Corporation**
- Functions of DVRRC** – All releases from the 4 dams such as Maithon, Panchet, Tillaiya and Konar are as advised by the Damodar Valley Reservoir Regulation Committee (DVRRC).
- Reviews the overall reservoir operation of DVC reservoirs during monsoon & non-monsoon season.
- Allocates water for different uses, discusses and takes decision on optimum utilisation of water resources available in the basin.
- Directs to take special studies on different aspects of reservoir operations, improvement of flood forecasting and warning network, health aspects of dams.
- The DVRRC meetings are generally held twice in a year which include pre-monsoon meeting and post-monsoon meeting.

- Damodar Valley Corporation** – Is the **first multipurpose river valley** project of independent India that was established on 7th July, 1948.
- The Damodar Valley Corporation (DVC) operates four dams with Final releases are from Maithon and Panchet. The 4 dams are:
  - Maithon
  - Panchet
  - Tillaiya
  - Konar
- The Tenughat Dam which is operated by Government of Jharkhand but is outside the control of DVRRC made a huge release of 85,000 cusecs which added to the problem.
- Government of Jharkhand has refused to bring this dam within the ambit of the DVRRC.
- Organisation Structure:**



2. a

### Global Cybersecurity Index (GCI), 2024

- The Global Cybersecurity Index (GCI) is a trusted reference that measures the commitment of countries to cybersecurity at a global level.
- It aids to raise awareness of the importance and different dimensions of the issue.
- Each country's level of development or engagement is assessed along **5 pillars**:
  - Legal Measures
  - Technical Measures
  - Organizational Measures
  - Capacity Development

### 5. Cooperation?

#### • **Key highlights of Global Cybersecurity Index (GCI), 2024:**

- On average, countries have taken more cybersecurity-related actions and improved their cybersecurity commitments since the last index was released in 2021.
- It uses a *new five-tier analysis*, a shift that allows a greater focus on each country's advances with cybersecurity commitments and resulting impacts. The new 5 Tiers analysis are:
  1. "Role-Modelling"(T1)
  2. "Advancing"(T2)
  3. "Establishing"(T3)
  4. "Evolving"(T4)
  5. "Building" (T5)
- The report places **46 countries in Tier 1**, the highest of the five tiers, reserved for "role modelling" countries that demonstrate a strong commitment in all five cybersecurity pillars.
- Most countries are either "establishing"(Tier 3) or "evolving"(Tier 4) in terms of cybersecurity.
- The 105 countries in these tiers have largely expanded digital services and connectivity but still need to integrate cybersecurity measures.
- According to GCI 2024, the **Africa region has advanced the most on cybersecurity since 2021. (Statement 3 is incorrect)**
- The world's least developed countries (LDCs) have also started making gains, though they still need support to advance further and faster.
- GCI 2024 data shows that the average LDC has now reached the same level of cybersecurity status that many of the non-LDC developing countries had in 2021.
- **India** – India has Achieved **Tier 1 Status** in Global Cybersecurity Index **2024**.
- India has a remarkable score of 98.49 out of 100 and India has joined the ranks of 'role-modelling' countries.

3. b

#### **National Centre for Good Governance (NCGG)**

*The 33rd Capacity Building Programme for the Civil Servants of Maldives was successfully completed recently at NCGG, New Delhi.*

- The National Centre for Good Governance (NCGG) was set up in 2014 by the Government of India.
- It is an apex-level autonomous institution under the Ministry of Personnel, Public Grievances and Pensions. (**Statement 1 is correct**)
- The Centre traces its origin to the **National Institute of Administrative Research (NIAR)**, which was set up in 1995 by:
  - The Lal Bahadur Shastri National Academy of Administration (LBSNAA) and
  - The Government of India's topmost training institute for civil services.
- NIAR was subsequently rechristened and subsumed into NCGG.
- NCGG deals with a gamut of governance issues from local, state to national levels, across all sectors.
- The **Centre is mandated** to work in the areas of *governance, policy reforms, capacity building and training of civil servants* and technocrats of India and other developing countries. (**Statement 3 is correct**)
- It also works as a think tank.
- It focuses on issues related to good governance, social accountability, water, sanitation and hygiene (WASH), among other sectors.
- **Governing Body** – The affairs of the NCGG are managed under the overall superintendence and direction of the Governing Body.
- **Cabinet Secretary** is the **Chairperson of the governing body. (Statement 2 is incorrect)**
- **Management Committee** – It is responsible for the administration and management of the society with regards to detailed plans, monitoring and implementation of programmes, contributions, and funds of the society.
- **Composition of the Management Committee** – 12 ex-officio members, headed by the Secretary, DARPG as Chairperson.
- Secretaries of 9 ministries/ departments or their nominee, Secretary Coordination from Cabinet Secretariat and Director General, NCGG as Member Secretary.

4. b



### Cleanliness Target Units (CTU)

- Cleanliness Target Unit (CTU) refers to severely neglected, high-risk areas like garbage points or dumpsites.
- CTU will be adopted by various institutions, majorly Central Public Sector Undertakings (CPSUs) and turned into facilities for public use.
- It would be identified and mapped through a portal.
- **Swachhata Mein Jan Bhagidari** – Promoting public participation, awareness, and advocacy.
- **Safai Mitra Suraksha Shivirs** – Conducting preventive health check-ups and providing social. (**Statement 3 is incorrect**)

5. a

### Operation Bhediya

- Operation Bhediya is an initiative of Forest Department to capture pack of wolf Uttar Pradesh's Bahraich, where the animals are suspected of killing at least ten people and injuring several others in a short span.
- A multi-pronged approach is being used to capture the wolf.
- Thermal drones are being deployed to track the wolf's movements, and efforts are also focused on identifying pugmarks and gathering intelligence from residents.
- Awareness programmes were being conducted continually in the area and there has been no let-up in night patrolling.
- Command centre established at the divisional level collects information round the clock and action was being taken as per the information.

**23-09-2024**

1) Consider the following statements with respect to Amur Falcons

1. It breeds in northern China and eastern Russia and migrates to southern Africa to spend the winter.
2. It is a migratory raptor which is protected under the Schedule IV of the Wildlife Protection Act, 1972.
3. It is accorded Least Concern status under the International Union for Conservation of Nature Red List.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

2) Consider the following statements with respect to Inflammatory Bowel Diseases (IBDs)

1. It is a chronic condition that causes inflammation in the intestines.
2. It is an autoimmune disorder that is hereditary in nature and more common in rural.
3. Breakdown of the mucus barrier is a hallmark of inflammatory bowel diseases (IBDs).

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

3) Consider the following pairs:

<i>Terms in News</i>	<i>States</i>
1. Nelong/Nilung Valley	– Uttarakhand
2. Nagmithong Nala	– Ladakh
3. Asola Bhatti Wildlife Sanctuary	– New Delhi

How many of the pair(s) given above is/are correctly matched?

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. 1, 2 and 3

4) Consider the following statements with respect to Dark Patterns

1. It benefits the companies at the expense of consumers by exploiting human psychology and clever design.
2. It falls under 'unfair trade practices' category under Consumer Protection Act, 2019.

Which of the above statement(s) is/are **incorrect**?

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

5) Consider the following statements with respect to the Summit of the Future

- 1. It is an opportunity for the global community to chart the road ahead for the betterment of humanity.
- 2. It was held at New York that covers a broad range of themes including peace and security, sustainable development and climate change.

Which of the above statement(s) is/are correct?

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

## Answers

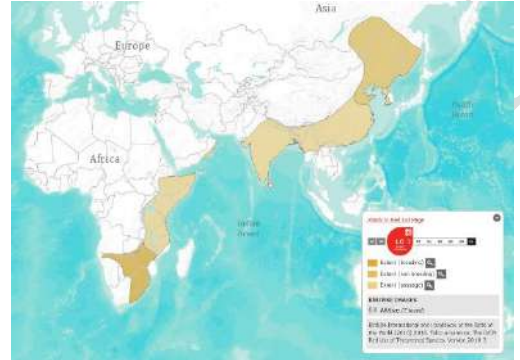
1. c

### Amur Falcons

*Hunting has been recently banned in the Manipur's Tamenglong district, ahead of Amur falcon's arrival.*

- The Amur falcon is a species from the Siberian region which *migrates to the African region* for wintering covering a long distance of 22000 km and completing an elliptical loop.
- It breeds in northern China and eastern Russia and migrates to southern Africa to spend the winter to complete an elliptical loop with a journey length of 22,000 km, longest sea crossing of any raptor.
- It migrates west through India and across the Arabian Sea to Southern Africa.
- In India, it passes through Nagaland, Manipur and elsewhere in north-eastern India.
- In India, it arrives in the first half of October and roost until November-end.
- It is **protected under the Schedule IV of the Wildlife Protection Act, 1972**.

- Poaching and destruction of wildlife (including migratory birds Amur falcon) in any way for food or possession or otherwise is a punishable offence under Wildlife Protection Act, 1972.
- Amur Falcons feeds on dragonflies that follow a similar migration path over Arabian Sea.
- **Flyway** – East-Asian Australasian and African Eurasian.



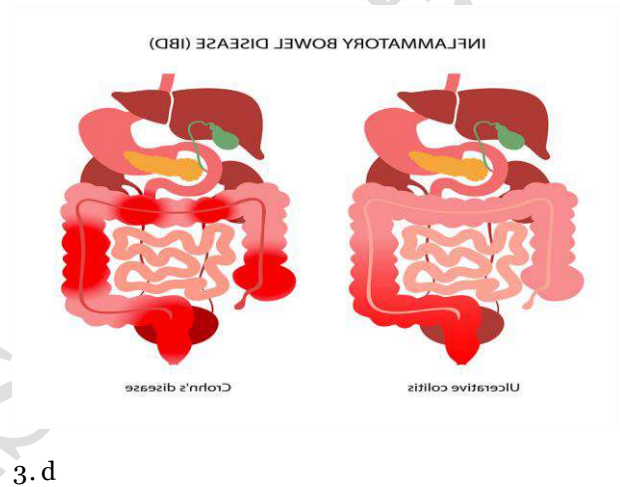
2. b

### Inflammatory Bowel Diseases (IBDs)

- Inflammatory bowel disease is a term that refers to Crohn's disease and ulcerative colitis that cause inflammation in the intestines.
- **Crohn's disease** can affect any part of the gastrointestinal tract from the mouth to the anus.
- **Ulcerative colitis** can affect any part of the large intestine.
- A third category, indeterminate colitis inflammatory bowel disease, refers to IBD that has features of both Crohn's disease and ulcerative colitis.
- IBD is an **autoimmune disorder**, body's immune system attacks healthy tissues.
- It is not yet known what triggers these attacks and why IBD develops in some people and not in others.
- IBD can affect people in any ethnic or racial group, but statistically, people of Jewish ancestry have a greater risk of developing inflammatory bowel disease.
- **So it is not hereditary in nature. (Statement 2 is incorrect)**
- IBD is rare in the southern hemisphere.
- **Common Symptoms:**
  - Persistent diarrhoea.
  - Abdominal pain and cramping.

- Rectal bleeding or bloody stools.
  - Fatigue.
  - Unintended weight loss.
  - Reduced appetite.
- **Causes and Risk Factor** – The exact cause of IBD is unknown, but researchers believe it involves a complex interaction between genetics, the immune system and environmental factors.
  - Breakdown of the mucus barrier is a hallmark of inflammatory bowel diseases (IBDs). **(Statement 3 is correct)**
  - **Mucus barrier** separates the intestinal epithelium from the microbiota.
  - **Some risk factors include:**
    - Family history of IBD
    - Age (most often diagnosed before age 30)
    - Smoking (increases risk for Crohn's disease)
    - Use of certain medications (e.g., nonsteroidal anti-inflammatory drugs)
    - High-fat diet
    - Stress, Diagnosis
  - **Diagnosing IBD often involves a combination of tests:**
    - Blood tests.
    - Stool samples.
    - Endoscopy (colonoscopy, upper endoscopy).
    - Imaging studies (CT scan, MRI).
    - Treatment.
  - While there is no cure for IBD, various treatments can help manage symptoms and prevent complications. Treatment plans are often individualized and may include:
  - **Medications:**
    - Anti-inflammatory drugs.
    - Immuno-suppressants.
    - Biologics.
    - Antibiotics.

- **Dietary changes:**
  - Identifying and avoiding trigger foods.
  - Ensuring proper nutrition.
- **Surgery:**
  - In severe cases or when complications arise.
- **Lifestyle modifications:**
  - Stress management.
  - Regular exercise.
  - Quitting smoking.



#### Nelong/Nilung Valley, Nagmithong Nala and Asola Bhatti Wildlife Sanctuary

- **Nelong/ Nilung Valley** – It is an inner line area (India – China border), opened for tourist only for day time.
- It is situated at Uttarkashi district of **Uttarakhand**.
- **Nagmithong Nala** – It is in the Kargil region of **Ladakh**.
- It is prone to glacial lake outburst floods (GLOFs).
- **Asola Bhatti Wildlife Sanctuary** – It is situated at **New Delhi**.
- Seed balls of native species will be dropped at the Asola-Bhatti Wildlife Sanctuary for the first time at Asola Wildlife Sanctuary.

4. d

#### Dark Patterns

*In recent times, Dark patterns pose a growing concern in India's digital landscape.*

- Deceptive Patterns (aka Dark Patterns) are user interface designs intentionally crafted to mislead or manipulate individuals into actions that may not align with their best interests or original intentions.
- These designs often result in unintended purchases, subscriptions, or the disclosure of personal data.
- It benefits the companies at the expense of consumers by exploiting human psychology and clever design.
- As online shopping becomes more prevalent, dark patterns are increasingly used to manipulate user decisions, exploiting the surge in digital activity.
- Common dark patterns include:
  - Creating a false sense of urgency to rush users into making purchases,
  - Hiding subscription cancellations deep within websites and
  - Using confusing language to mislead users.
- The tactics are unethical and undermine the integrity of the design process, leading to practices that prioritise manipulation over genuine long-term user engagement.
- **The practices fall under 'unfair trade practices' category under Consumer Protection Act, 2019.**
- The 'Guidelines for Prevention and Regulation of Dark Patterns, 2023' under the Consumer Protection Act, 2019, has identified **13 common dark patterns** prevalent in e-com applications and websites.
- India's initiatives also include the Consumer Protection (E-commerce) Rules, 2020 and new guidelines are crucial steps in protecting consumers from unfair practices.
- Dark patterns pose a significant **ethical challenge** by manipulating consumer behaviour, undermining transparency and user autonomy.
- The tactics exploit psychological tendencies, leading users to actions that benefit firms rather than fostering fairness.

5. c

### Summit of the Future

*India emphasises affordable solutions for climate change at the United Nations Summit of the Future, promoting sustainable lifestyles and green jobs.*

- The Summit is a high-level event, bringing world leaders together to forge a new international consensus on how we deliver a better present and safeguard the future.
- The aim of the Summit of the Future is two-fold:
  - Accelerate efforts to meet our existing international commitments and
  - Take concrete steps to respond to emerging challenges and opportunities.
- It is an opportunity for the global community to chart the road ahead for the betterment of humanity.
- It was held at New York that covers a broad range of themes including peace and security, sustainable development and climate change.
- It also covers digital cooperation, human rights, gender, youth and future generations, and the transformation of global governance.

**24-09-2024**

1) Consider the following statements with respect to the Pradhan Mantri Janjatiya Unnat Gram Abhiyan (PM-JUGA)

1. It is a centrally sponsored scheme for the welfare of tribal families in tribal-majority villages and aspirational districts.
2. The Mission consists of 25 interventions which will be implemented by 17 line ministries.

Which of the above statement(s) is/are correct?

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

2) Consider the following statements with respect to Sculptures

1. It is a functional utility that deals with dwelling places.
2. It flourished during the Vedic Period, from 1900 BC to 300 BC.

3. Gandhara art uses schist stone or stucco plaster and is characterised by fine Roman grace, drapery and the nimbus.

How many of the statements given above are correct?

- Only one
- Only two
- All three
- None of the above

3) Consider the following statements:

- The "protected area" also includes Marine Protected Areas, the boundaries of which will include some area of ocean.
- Biosphere Reserves are protected areas, meant for the conservation of plants and animals.

Which of the above statement(s) is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

4) Consider the following statements with respect to Ministry of Statistics and Programme Implementation (MoSPI)

- It came into existence as an Independent Ministry after the merger of the Department of Statistics and the Department of Programme Implementation.
- Monthly periodic labour force surveys (PLFS) for both rural and urban areas and Centre for Monitoring Indian Economy (CMIE) is an initiative of it.
- Twenty Point Programme is one of the divisions under the Programme Implementation wing.

How many of the statements given above are correct?

- Only one
- Only two
- All three
- None of the above

5) "Ek Ped Maa Ke Naam" Application, sometimes seen in the news recently, was launched by?

- Ministry of Electronics and Information Technology
- Ministry of Communications
- Ministry of Agriculture & Farmers' Welfare
- Ministry of Commerce and Industry

## Answers

1. c

### Pradhan Mantri Janjatiya Unnat Gram Abhiyan (PM-JUGA)

- Objective** – To ensure saturation coverage and implementation of central schemes aimed at improving the socio-economic conditions of tribal communities.
- It is a **centrally sponsored scheme** for the welfare of tribal families in tribal-majority villages and aspirational districts.
- Target coverage** – 63,000 villages across 545 districts in 30 states, benefiting approximately 5 crore tribal people.
- Background** – The scheme builds on the learnings from the PM Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN).
- To know more about PM JANMAN [click here](#).

*India has ST population of 10.45 crore as per 2011 census and there are more than 705 tribal communities, spread across the country, living in remote and hard-to-reach areas.*

- Components of PM-JUGA:**
- Pucca house for eligible Households with other entitlements** – Eligible ST household shall have access to pucca housing under the PMAY (Gramin) with availability of tapped water (Jal Jeevan Mission) and electricity supply (RDSS).
- Improving Village infrastructure** – To ensuring all weather road connectivity to ST majority villages (PMGSY).
- It provides access to mobile connectivity (Bharat Net) and internet, infrastructure for improving health, nutrition, and education (NHM, Samagra Shiksha and Poshan).
- The Mission consists of 25 interventions which will be implemented by 17 line ministries.

- The Mission targets in respect of 17 Ministries are as under:

Ministry	Interventions/ (Scheme)	Beneficiary / Intervention figure
Ministry of Rural Development (MoRD)	Pucca houses- (PMAY)- Gramin Connecting Road (PMGSY)	20 lakhs houses 25000 km road
Ministry of Jal Shakti	Water Supply-Jal Jeevan Mission (JJM)	<ul style="list-style-type: none"> <li>Every eligible village</li> <li>5,000 hamlets ≤ 20HH</li> </ul>
Ministry of Power	House Electrification- [Revamped Distribution Sector Scheme (RDSS)]	Every un-electrified HH and unconnected public institutions (~ 2.35 lakh)
Ministry of New and Renewable Energy	Off-grid Solar and New Solar Power Scheme	(Every un-electrified HH and public institutions not covered through grid.
Ministry of Health and family Welfare	Mobile Medical Units- National Health Mission Ayushman Card - Pradhan Mantri Jan Arogya Yojana (PMJAY)-NHA	Up to 1000 MMU Every eligible HH covered under the Abhiyan
Ministry of Petroleum & Natural Gas	LPG Connections-(PMUjjwala Yojana)	25 Lakhs HH (subject to approval of targets under original scheme and upon continuation of the scheme)
Ministry of Women and	Establishment of Anganwadi Centres- Poshan Abhiyan	8000 (2000 New Saksham AWC) & 6000 upgradation

Child Development		to Saksham AWC)
Ministry of Education	Construction of Hostels- Samagra Shiksha Abhiyan (SSA)	1000 hostels
Ministry of AYUSH	Poshan Vatikas- National AYUSH Mission	700 Poshan Vatikas
Department of Telecom	Universal Service Obligation Fund/ Bharat Net (DoT-MoC)	5000 Villages
Ministry of Skill Development and Entrepreneurship	Skill India Mission (Existing Schemes)/ propose	Skilling Center in tribal districts 1000 VDKs, Tribal Groups etc
Ministry of Electronics & Information Technology	Digital Initiatives	As applicable
Ministry of Agriculture & Farmer welfare	Promotion of sustainable agriculture – Multiple Schemes of DoAFW	FRA Patta holders (2 lakhs beneficiaries)
Department of Fisheries	Fish culture support- Pradhan Mantri Matsya Sampada Yojana (PMMSY)	10,000 community and 1,00,000 individual beneficiaries
Department of Animal Husbandry & Dairying	Livestock rearing- National Livestock Mission	8500 Individual /Group beneficiaries
Ministry of Panchayati Raj	Capacity building- Rashtriya Gram Swaraj Abhiyan (RGSA)	All Gram Sabhas and concerned officers at Sub division, District and State level dealing with FRA
Ministry of Tourism	Tribal Home Stays- Swadesh Darshan	1000 Tribal Home Stays with support of upto Rs 5 lakh per unit (for new construction), upto Rs 3

		lakhs (renovation) and Rs 5 lakh for village community requirement.
Ministry of Tribal Affairs	Pradhan Mantri Adarsh Gram Yojana (PMAAGY)	Enhancing the scope of SCA to Tribal Development / PMAAGY by including other interventions.

2. a

### Sculptures

- Architecture deals with dwelling places such as homes, palaces, tombs, temples, mosques, monuments and has a functional utility.
- Sculptures are more aesthetic or ritualistic and **do not have a functional purpose.** (Statement 1 is incorrect)
- Sculptures typically show human, animal and plant figures or supernatural beings standing in isolation or emerging from walls.
- The most ancient sculptures we have come from the Harappan Civilization (2500-1900 BC). Notable examples include:
  - Clay figurines (often female and bejewelled).
  - Bronze works (the 10.5-cm "dancing girl").
  - Stone sculptures (the priest king made of steatite).
- **Vedic Period (1900 BC-300 BC) – Notable absence of sculptural evidence.** (Statement 2 is incorrect).
- **Mauryan Empire (320-185 BCE) –** Introduction of royal sculptures atop pillars.
  - **Example** – Lion Capital of Ashoka.
  - It features four life-like lions and the Dharma Chakra.
  - Incorporates four animals: lion, elephant, bull and horse.
- **Early Buddhist Art (100 BC) –** Characterized by bas relief or shallow carvings.

- Found on railings of stupas (examples are Sanchi and Bharhut).
- Depicts Buddha's life symbolically and scenes of urban life.
- Shows influence of Greek and Persian artists.
- **Kushan Period (100 AD) –** Marked by 3 major schools:
  1. Gandhara Art (Swat Valley, present-day Pakistan)
  2. Mathura Art (Gangetic plains)
  3. Amaravati Art (Krishna and Godavari delta)
- Gandhara art uses schist stone or stucco plaster and is characterised by fine Roman grace, drapery and the nimbus. (Statement 3 is correct)
- Features of giant Yaksha and Yakshi images and introduction of early Hindu god imagery (Krishna-Vasudeva, Naga deities).
- Presents earliest Jain sculptures are found in Amaravati Art (Krishna and Godavari delta).
- Uses marble-like limestone.
- Known for extreme ornamentation and the influence spread to Sri Lanka and first sculptural representations of Buddha.

3. c

### Biosphere Reserves & Protected Areas

- Biosphere Reserves (BR) are protected areas that are meant for the conservation of flora, fauna, plants and animals.
- A BR tries to balance economic and social development and maintenance of associated cultural values along with the preservation of nature.

November 3 is celebrated worldwide as the International Day for Biosphere Reserves.

- The Day aims at highlighting and promoting the activities of Biosphere Reserve (BR) in order to harmonise sustainable development.
- The Day is also significant from the point that with each passing day, the need to tackle environmental issues is growing.
- BRs are **nominated by national governments** and remain under the sovereign jurisdiction of the states where they are located.
- These are **designated under the Man and the Biosphere (MAB)** Programme by the

Director-General of UNESCO following the decisions of the MAB International Coordinating Council (MABICC).

- The **MAB Programme** is an **intergovernmental scientific programme** that aims to establish a scientific basis for enhancing the relationship between people and their environments.
- Biosphere reserves are **not conventional protected areas**.
- They are places where over 275 million people live and work and these reserves exist wherever people interact with nature.
- In these biosphere reserves, people reset and reinvent their relationship with the environment in tangible ways.
- The Biosphere Reserve consists of 3 main zones:
  1. Core
  2. Buffer
  3. Transition
- **Transition area** – Is where communities foster socio-culturally and ecologically sustainable economic and human activities.
- **Buffer zones** – They surround or adjoin the core area(s).
- They are used for activities compatible with sound ecological practices that can reinforce scientific research, monitoring, training and education.
- **Core areas** – They comprise a strictly protected zone that contributes to the conservation of landscapes, ecosystems, species and genetic variation.
- There are 738 biosphere reserves in 134 countries, including 22 transboundary sites, according to UNESCO.
- In **India**, at present there are **18 notified biosphere reserves** spanning 60,000 sq km.
- The blue mountains of the **Nilgiris** stretching over Tamil Nadu, Karnataka and Kerala, was the **first biosphere reserve in India**.
- Further, the **largest biosphere reserve** is the **Gulf of Kachchh (Gujarat)** and the **smallest** is **Dibru-Saikhowa (Assam)**.
- Other bigger biosphere reserves are the Gulf of Mannar (Tamil Nadu), Sunderbans (West Bengal), and Cold Desert (Himachal Pradesh).

## Protected Areas

- Protected areas are those in which human occupation or at least the exploitation of resources is limited.
- There are several kinds of protected areas, which vary by level of protection depending on the enabling laws of each country or the regulations of the international organizations involved.
- Protected areas include:
  1. National Parks
  2. Wildlife Sanctuaries
  3. Conservation Reserves
  4. Community Reserves
  5. Marine Protected Areas
- The term "protected area" also includes:
  - Marine Protected Areas, the boundaries of which will include some area of ocean and
  - Transboundary Protected Areas that overlap multiple countries which remove the borders inside the area for conservation and economic purposes.

Protected Areas of India (As on July, 2023)		
Legal Status of Protected Area	Nos.	Coverage % of Country
National Park	106	1.35
Wildlife Sanctuary	573	3.87
Community Reserve	220	0.04
Conservation Reserves	123	0.17
<b>Total PAs</b>	<b>1022</b>	<b>5.43</b>

- Protected area (PA) network in India has helped to conserve a significant part of the country's biodiversity.

4. c

## Ministry of Statistics and Programme Implementation (MoSPI)

- The Ministry of Statistics and Programme Implementation came into existence as an Independent Ministry on 15.10.1999.
- It was formed by merging the Department of Statistics and the Department of Programme Implementation.



- The Ministry has **two wings**, one relating to **Statistics** and the other **Programme Implementation**.
- The **Statistics Wing** is called the **National Statistical Office(NSO)**
- NSO consists of:
  1. Central Statistical Office (CSO),
  2. Computer centre and
  3. National Sample Survey Office (NSSO).
- The **Programme Implementation Wing** has **3 Divisions**, that include:
  1. Twenty Point Programme.
  2. Infrastructure Monitoring and Project Monitoring.
  3. Member of Parliament Local Area Development Scheme.
- Besides these two wings, there is National Statistical Commission and Indian Statistical Institute.
- **National Statistical Commission** was created through a Resolution of Government of India (MOSPI).
- **Indian Statistical Institute** is one autonomous Institute that was declared as an institute of National importance by an Act of Parliament.
- India is a subscriber to the International Monetary Funds (IMF) Special Data Dissemination Standards (SDDS) and is currently fulfilling the Standards.
- The Ministry maintains an 'Advance Release Calendar' for its data categories covered under the SDDS.
- The **initiatives of MoSPI include**:
  - Monthly periodic labour force surveys (PLFS) for both rural and urban areas.
  - Weekly and monthly basis of the Centre for Monitoring Indian Economy (CMIE).
  - Quarterly bulletins, that provide details of labour force indicators such as:
    - Labour Force Participation Rate (LFPR), Worker Population Ratio (WPR), Unemployment Rate (UR).
- Ek Ped Maa Ke Naam Application combines environmental responsibility with a personal touch, allowing individuals to contribute towards a greener planet.
- Ek Ped Maa Ke Naam Application was recently launched by the **Ministry of Communications**.
- It is a unique platform where users can plant and dedicate a tree in honour of their mothers.
- This app not only allows users to contribute towards environmental sustainability but also provides a special way to celebrate their bond with their mother.
- **Key Features and Functionality of the Apps include**:
  - **Simple App Launch** – Users can launch the app by tapping the icon on their device, immediately leading to the home screen with the application logo.
  - **Capture and Upload Image** – The app allows users to dedicate a tree by capturing an image.
  - **Tree Details** – After capturing the image, users can provide details about the tree type, location (state) and occasion for planting the tree.
  - **Seamless Submission** – The app offers the flexibility to submit the image or retake it without losing the previously filled details.
  - **Location and Timestamp** – The app automatically records the location, latitude, longitude and timestamp of the dedicated tree.
  - **Progress Updates** – Users can update the tree's growth by uploading a new image every 30 days, allowing for continuous tracking.
  - **Carbon Credit Tracking** – Users can track the carbon credits they have earned through their contributions, promoting eco-consciousness.
  - **Social Media Sharing** – The app encourages sharing tree images on social media, spreading awareness and inviting others to participate in this meaningful initiative.

**25-09-2024**

1) Consider the following statements with respect to "Interactive Tuberculosis (TB) Vaccines Dialogue"

1. It aims to bring together important stakeholders from countries and globally who

5. b

### Ek Ped Maa Ke Naam Application

are involved in TB vaccine development and delivery.

2. The event was organized by World Health Organization in partnership with Ministry of Health and Family Welfare.
3. Subclinical TB refers to TB cases where the patient is infected with tuberculosis but does not show the typical symptoms associated with the disease.

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

2) Consider the following statements with respect to Repairability Index

1. It will be a consumer-focused indexing that enables consumers to take a product based decision related to Mobile and Electronics Sector, based on its repairability.
2. Digital India Corporation (DIC) has recently constituted a committee to recommend a robust framework for it.

Which of the above statement(s) is/are correct?

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

3) Consider the following statements with respect to Australasian Narrow-nosed Spookfish

1. It is a new species of ghost shark, a group of fish whose skeletons are entirely made of cartilage.
2. They feed off crustaceans at depths of up to 2,600 metres using their distinctive beak-like mouth.
3. It is only found in New Zealand and Australian waters.

How many of the statements given above are correct?

- a. Only one
- b. Only two

- c. All three
- d. None of the above

4) Consider the following statements with respect to Digital Sansad

1. It is a single digital platform in which live proceedings of any state assembly can be accessed through this platform.
2. The website of it is designed, developed and hosted by National Informatics Centre.

Which of the above statement(s) is/are correct?

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

5) Consider the following statements with respect to the Asian Organisation of Supreme Audit Institution (ASOSAI)

1. It is an autonomous, independent, professional and non-political organization established as a permanent institution.
2. The 16th ASOSAI Assembly was organised by the Comptroller and Auditor General (CAG) of India, in New Delhi.
3. Presently, the Comptroller and Auditor General of India (CAG) is the Capacity Development Administrator of ASOSAI.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

## Answers

1. c

## Interactive Tuberculosis (TB) Vaccines Dialogue

*Union Minister of State for Health and Family Welfare has recently delivered the keynote address at the "Interactive TB Vaccines Dialogue".*

- Interactive Tuberculosis (TB) Vaccines Dialogue was held on the side-lines of the ongoing 79th session of the United Nations General Assembly (UNGA) in New York City.
- It is a part of ongoing initiatives to expedite the fight against tuberculosis (TB), the event convened experts, dignitaries and critical stakeholders from around the globe.
- The **objectives** of the TB Vaccines Dialogue include:
  - To bring together important stakeholders from countries and globally who are involved in TB vaccine development and delivery (**Statement 1 is correct**).
  - To address key issues such as clarity over misconceptions, answer questions relevant to it and fill knowledge gaps.
  - To focus on practical and realistic goals on TB vaccine development and TB vaccine delivery.
- **Stop TB Partnership Board** – The Interactive Tuberculosis (TB) Vaccines Dialogue is organised by STOP TB Partnership. (**Statement 2 is incorrect**)
- It provides leadership, direction and monitors the implementation of agreed policies, plans and activities of the Partnership.
- It also ensures coordination among Stop TB Partnership components.
- Stop TB Partnership is governed by the Board, supported by two standing Board Committees.
- **Subclinical TB** – Refers to TB cases where the patient is infected with tuberculosis but does not show the typical symptoms associated with the disease.
- To know more about Subclinical TB [click here](#)

2. a

### Repairability Index

*The Department of Consumer Affairs (DoCA) has recently established a committee of experts to create a framework for a Repairability Index in the mobile and electronics sector.*

- Repairability Index will be a consumer-focused indexing that enables consumers to take a product related decision, based on its repairability.
- It can standardize how repairability is assessed, making it easier for consumers to compare

products based on repairability indexing thereby creating an ecosystem of informed choices across mobile and electronics products.

- The **Department of Consumer Affairs (DoCA)** has constituted a committee of experts under the chairmanship of Shri Bharat Khara. (**Statement 2 is incorrect**)
- The committee aims to recommend a robust framework for Repairability Index and to empower consumers and promote sustainable practices within the tech industry.
- By developing Repairability Index, DoCA seeks to provide consumers with greater transparency of repair information for their products and foster a more sustainable technology industry.
- **Key components of the Repair Ecosystem include:**
  - **Comprehensive Repair Information** – Access to repair manuals/DIYs, diagnostics and a list of necessary tools and parts.
  - **Accessible Spare Parts** – Easily identifiable and timely delivery of spare parts.
  - **Affordable Tools** – Inexpensive, widely available, and safe tools for consumers.
  - **Modular Design** – Key components designed for independent access and modularity.
  - **Economic Feasibility** – Ensuring that the cost of repair parts and labour is affordable for consumers.

3. c

### Australasian Narrow-nosed Spookfish

*A new species of ghost shark, with an unusually long nose and a whip-like tail, has been discovered in the inky depths of New Zealand waters.*

- Australasian narrow-nosed spookfish is a new species of "ghost shark".
- Ghost shark is a type of fish that prowls the Pacific Ocean floor hunting prey more than a mile down.
- Ghost sharks, or chimaeras, are related to sharks and rays, but are part of a group of fish whose **skeletons are entirely made of cartilage**.
- It is **only found in New Zealand and Australian waters**.

- Spookfish are sometimes referred to as the ocean's butterflies for the way they glide through the water with their large pectoral fins.
- The specimens were discovered during research in the **Chatham Rise**, an area of the Pacific which stretches around 1,000 kilometres (621 miles) east near New Zealand's South Island.
- Spookfish feed off crustaceans at depths of up to 2,600 metres (8,530 feet) using their distinctive beak-like mouth.
- Ghost sharks like this one are **largely confined to the ocean floor**.
- The scientific name of Australasian Narrow-nosed Spookfish is "Harriotta avia".
- Their habitat makes them hard to study and monitor, so there is lack of data about their biology or threat status.



4. c

### Digital Sansad

*The Lok Sabha Speaker Om Birla has recently stated that 'Digital Sansad' will be available to livestream assembly proceedings in 10 languages.*

- Digital Sansad is a single digital platform in which live proceedings of any state assembly can be accessed through this platform.
- Anyone can access House proceedings in digitised formats with 'Digital Sansad' platform in the country's **10 languages**.
- Currently, the assemblies of 20 states have reportedly been linked with this single platform of the Lok Sabha.
- It will be soon available to everyone in a digital visual format.
- The legislative bodies are digitising processes and records in addition to taking measures to

train public representatives using IT in day-to-day activities.

5. a

### Asian Organisation of Supreme Audit Institution (ASOSAI)

- Asian Organisation of Supreme Audit Institution (ASOSAI) is one of the **Regional Groups** of the International Organization of Supreme Audit Institutions (INTOSAI). **(Statement 1 is incorrect)**
- Other Regional Groups are:
  - European Organization of Supreme Audit Institutions (EUROSAI)
  - African Organisation of Supreme Audit Institutions (AFROSAI)
  - Arab Organization for Supreme Audit Institutions (ARABOSAI)
  - Caribbean Organization of Supreme Audit Institutions (CAROSAI)
  - Latin American and Caribbean Organization of Supreme Audit Institutions (OLACEFS)
  - Pacific Association of Supreme Audit Institutions (PASAI)
- The objectives of ASOSAI include:
  - To promote understanding and cooperation among member through exchange of ideas and experiences in the field of Public Audit.
  - To provide facilities for training and continuing education for government auditors, with a view to improving quality and performance.
  - To serve as a centre of information and as a regional link with institutions in other parts of the world in the field of Public Audit.
  - To promote closer collaboration and brotherhood among auditors in the service of the Governments of the respective member institutions and among regional groups.
- **Assembly of ASOSAI** – The Assembly consists of all members of the Organization and meets **once in three years**.
- The **first Assembly** was held in *New Delhi, India* in 1979.

- The 16th ASOSAI Assembly was organised by the Comptroller and Auditor General (CAG) of India, in New Delhi. **(Statement 2 is correct)**
- **Capacity Development Committee** – it plans, implements and follows up on the Capacity Development activities of ASOSAI under direction of the Governing Board and in close cooperation with the Secretary General.
- The Capacity Development Administrator is appointed by the Governing Board and becomes an ex-officio member of the Governing Board.
- **Presently, the Board of Audit of Japan is the Capacity Development Administrator of ASOSAI. (Statement 3 is incorrect)**
- The **Governing Board** is the **executive arm** of the Organization and consists of the following 12 members.
- **International Organization of Supreme Audit Institutions (INTOSAI)** – Is an autonomous, independent, professional and non-political organization established as a permanent institution.
- Its purpose is to:
  - Provide mutual support to SAIs and foster the exchange of ideas, knowledge, and experiences,
  - Act as a recognized global public voice of SAIs within the international community and set standards for public sector auditing,
  - Promote good national governance and
  - Support SAI capacity development, cooperation and continuous performance improvement.

**26-09-2024**

1) Consider the following statements with respect to Pralay Missile

1. It is a canisterized, short-range ballistic missile that was developed by the Defence Research and Development Organisation (DRDO).
2. It can carry a variety of warheads, including high-explosive preformed fragmentation, penetration-cum-blast (PCB).

Which of the above statement(s) is/are correct?

- a. 1 only

- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

2) Crop Weather Watch Group (CWWG), sometimes seen in the news recently, is associated with?

- a. An NGO that provides financial assistance to farmers during distress.
- b. A weekly meeting to review the status of crops and weather conditions.
- c. An initiative of Mahalanobis National Crop Forecast Centre (MNCFC) to forecast weather.
- d. A group that provides drought indicator assessment using satellite data.

3) Consider the following statements with respect to High Integrity Forest Investment Initiative (HIFOR)

1. It is a Payment for Ecosystem Services scheme designed by United Nations Environment Programme.
2. It serves as a tool to be used by all those interested in the conservation of high integrity tropical forests.

Which of the above statement(s) is/are correct?

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

4) Consider the following statements with respect to Garlic

1. The nutrients present in garlic include manganese, selenium and vitamin B6.
2. India is the second largest producer of garlic.
3. Riya van is a variety of garlic that can be found only in China.

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

5) Consider the following statements with respect to the Asia Power Index, 2024

1. It measures resources and influence to rank the relative power of states in Asia.
2. It is compiled annually and released by Association of Southeast Asian Nations (ASEAN).
3. United States holds the top position, followed by the China in second place, with India securing the third spot.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

## Answers

1. c

### Pralay Missile

India is now considering a request from Armenia to supply the Pralay tactical ballistic missile.

- Pralay Missile has been developed for deployment along the Line of Actual Control (LAC) and Line of Control (LoC).
- It is a canisterized, short-range ballistic missile that was designed for battlefield use.
- **Developed by** – Defence Research and Development Organisation (DRDO).
- **Range** – 150 km to 500 km.
- **Features** – It can carry a variety of warheads, including high-explosive preformed fragmentation, penetration-cum-blast (PCB), and runway denial penetration submunitions (RDPS).
- It is capable of targeting critical enemy infrastructure such as radar installations, communication centres, command posts and airfields.
- **Armenia** – Armenia had approached India seeking to procure the Pralay tactical ballistic missile to counter Azerbaijan's acquisition of the **Israeli LORA** long-range surface-to-surface missile system.

- **LORA system** was allegedly used by Azerbaijan against Armenia in October 2020 during a military conflict.
- **Nagorno-Karabakh** is a disputed region between Armenia and Azerbaijan.

2. b

### Crop Weather Watch Group (CWWG)

- A weekly meeting of Crop Forecast Coordination Centre (CFCC) to review the status of crops and weather conditions.
- During the meeting the following are reviewed:
  - Status of area coverage under different crops and their conditions, rainfall and weather situation and
  - Reservoir status, inputs availability, price and procurement situation of agricultural commodities.
- Crop Forecast Coordination Centre (CFCC) is a division under the *Ministry of Agriculture & Farmers' Welfare*.
- Under the RTISA (Real Time Information System on Agriculture), CFCC provides monthly assessment of major crops by integrating the output of various organisations.
- In conjunction with this MNCFC provides forecast for 9 crops and IEG provides forecast for 13 crops.
- Coordinating efforts with various organisation to enhance the existing crop forecast.

3. b

### High Integrity Forest Investment Initiative (HIFOR)

- High Integrity Forest Investment Initiative (HIFOR) is a new nature finance initiative, bridging the gap between climate and biodiversity.
- HIFOR initiative is a Payment for Ecosystem Services scheme designed by the **Wildlife Conservation Society (WCS)**. **(Statement 1 is incorrect)**
- It serve as a tool to be used by all those interested in the conservation of high integrity tropical forests. **(Statement 2 is correct)**
- HIFOR units represent one hectare of well maintained, high integrity tropical forest located within a large well-conserved landscape.

- Investments in HIFOR directly support tropical forest conservation and help maintain the critical biodiversity and ecosystem services that they provide.
- **A single investment, with multiple benefits:**
- **Claims** – Purchasers of HIFOR units can make claims related to land conservation, climate, biodiversity, wildlife populations, and socio-economics.
- **Long-term investment** – HIFOR is an investment, not an offset. Maintaining high integrity areas is the cost efficient form of conservation.
- **Climate and biodiversity de-risking** – Improves outcomes across the whole investment portfolio by accounting for systemic risk (climate regulation and nature loss).
- Between 35% and 54% of assets held by financial institutions are highly or very highly dependent on ecosystem services supported by biodiversity.
- **Geographically diversified** – Reduces the risk of natural capital investment portfolio from natural disasters through a geographically diversified portfolio.
- The HIFOR portfolio spans the geographic range where high integrity forests are found.
- **No greenwashing** – Maintenance of high integrity tropical forests can be demonstrated through easily accessible metrics. HIFOR claims rest on the idea of a global contribution, not a corporate offset.
- Africa's first HIFOR project was launched in **Nouabale-Ndoki National Park (NNNP)** in the Republic of the Congo by Congo's Minister of Forest Economy and WCS.
- NNNP is the best example of an intact forest ecosystem remaining in the Congo Basin.
- The park has never been logged, contains no roads within its borders, and still protects wildlife populations deep within its interior that have had little or no contact with people.
- The forest is part of the larger Sangha Tri-National Forest Landscape that in July 2012 was nominated as a World Heritage Site.
- Garlic is a perennial plant of the amaryllis family (Amaryllidaceae), grown for its flavourful bulbs.
- It is a common cooking ingredient with numerous health benefits.
- It belongs to the **genus Allium** and has close ties with the onion, rakkyo.
- The plant is native to central Asia but grows wild in Italy and southern France and is a classic ingredient in many national cuisines.
- **Allicin** – Garlic contains **allicin**, which acts as an antibiotic and releases allicin when a person chops or crushes it.
- It is responsible for garlic's characteristic flavour, is produced when garlic is chopped, crushed, or chewed.
- Allicin interacts with receptors on sensory neurons in the trigeminal nerve.
- **Historical and cultural uses** – Garlic has been used in human diets for thousands of years.
- Sumerian clay tablets from 4000 years ago contain garlic recipes.
- In Ayurveda, warm garlic-infused milk known as *Lasuna Ksheerapaka* is used in various remedies for *respiratory conditions* and as a digestive aid.
- **Plant defence mechanisms** – Plants, being stationary, have developed chemical defences against predators.
- Underground parts of plants are particularly vulnerable to various threats.
- **Garlic's chemical composition** – Recent analysis has identified over 2,300 chemicals in garlic cloves.
- Only about 70 of these are currently included in nutrition charts.
- **Garlic is rich in manganese, selenium, and vitamin B6.**
- Other compounds include thiosulfinates, lectins, saponins, and flavonoids.
- **Garlic production in India** – **India is the second-largest producer of garlic globally.**
- Notable varieties include **Riya van from Madhya Pradesh**, Gadag local varieties from Karnataka, and Kashmiri varieties. **(Statement 3 is incorrect)**

4. a

#### Garlic (*Allium sativum*)

- **Madhya Pradesh** is the largest garlic-producing State in India.
- **Potential health benefits** – Garlic compounds may influence inflammatory processes, blood pressure, and cardiovascular health.
- The flavonoid luteolin may inhibit the formation of amyloid beta plaques associated with Alzheimer's disease.
- **Consumption recommendations** – Moderation is key to avoid side effects like heartburn and diarrhea.
- Some health practitioners recommend about 4 grams of garlic per day.

5. b

### Asia Power Index, 2024

India has overtaken Japan as Asia's third most powerful nation in the recently released Asia Power Index.

- The Asia Power Index measures resources and influence to rank the relative power of states in Asia.
- The Asia Power Index is compiled annually by the **Australian think tank Lowy Institute**, evaluates the power dynamics of countries across Asia. (**Statement 2 is incorrect**)
- It maps out the existing distribution of power as it stands today and tracks shifts in the balance of power over time.
- The Index explores 131 indicators across 8 thematic measures of power.
- The 8 thematic measures of power include:
  1. Diplomatic influence
  2. Culture influence
  3. Economic capability
  4. Military capability
  5. Resilience
  6. Future resource
  7. Economic relationships
  8. Defence networks
- The Index ranks 27 countries and territories in terms of their capacity to shape their external environment.

- In the Asia Power Index, 2024, the *United States* holds the top position, followed by the *China* in second place, with **India securing the third spot**.
- India has overtaken Japan as Asia's third most powerful nation in the index.
- India's rise to the third position reflects its expanding capabilities in several key areas, including defence, diplomacy, and economic growth.
- Challenges on India's road to superpower status:
  1. Income disparities
  2. Infrastructure needs
  3. Geopolitical tensions

**27-09-2024**

1) Consider the following statements with respect to Country Programme Advisory Committee

1. It aims to coordinate and review the progress on initiatives under Country Strategic Plan (2023-27).
2. Secretary to the department of Agriculture & Farmers Welfare is the chairman of the committee.
3. The committee meets at least annually and Joint Secretaries of concerned Ministries and NITI Aayog are its members.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

2) Consider the following statements with respect to Nilgai (blue bulls)

1. It is the largest Asian antelope in the Bovidae family.
2. Only president of village panchayat can authorise the killing of blue bulls and wild boars outside the protected area.
3. Nilgai antelopes live in dry areas with a variety of land types

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

- c. India, Brazil, Germany and Japan
- d. India, South Africa, Turkey and Australia

3) Consider the following statements with respect to Rabies

1. Rabies Ig is specifically used for category 3 bites, which involve severe exposure such as transdermal bites or scratches.
2. It can affect both domestic and wild animals.
3. Bhutan is first country to sterilise all stray dogs.

How many of the statements given above are **incorrect**?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

4) Consider the following statements with respect to World Telecommunication Standardization Assembly (WTSA)

1. It serves as the governing conference of the International Telecommunication Union (ITU).
2. It is held annually and only world conferences organized by the International Telecommunication Union.
3. WTSA 2024 will be held in India for the first time, marking the first time this pivotal standards conference takes place in Asia.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

5) Which of the following groups are members of the Group of Four (G4) Countries G-4?

- a. India, Brazil, France and Japan
- b. India, Italy, Germany and Russia

## Answers

1. c

### Country Programme Advisory Committee

- Country Programme Advisory Committee aims to coordinate and review the progress on initiatives under Country Strategic Plan.
- Secretary to the department of Agriculture & Farmers Welfare is the chairman of the committee.
- The committee meets at least annually and Joint Secretaries of concerned Ministries and NITI Aayog are its members.
- The CSP 2023-27 focuses on four strategic outcomes:
  - Improving national food-based social protection systems.
  - Increasing consumption of diverse, nutritious, and fortified foods.
  - Enhancing social and financial mobility of women.
  - Strengthening climate-resilient livelihoods and food systems.
- It will continue to address national priorities in food and nutrition security through capacity strengthening for stakeholders and technical support for the strengthening of national social protection programmes and government schemes.
- **United Nations World Food Programme (UN WFP):**
  - United Nations World Food Programme (UN WFP) is the world's largest humanitarian organization saving lives in emergencies.
  - As the world's largest humanitarian organization, WFP uses food assistance to build pathways to peace, stability and prosperity.
  - WFP is present in over 120 countries and territories.
  - WFP is a first responder to emergencies caused by conflict, climate shocks, pandemics and other disasters.

- They provide food, cash and other assistance to millions of people left in urgent need and at risk of going hungry.
- There's a Memorandum of Understanding (MoU) between DA&FW and UN WFP to address food security and nutrition priorities in India.

2. c

### Nilgai (*Boselaphus tragocamelus*)

*The Bihar government has recently authorised the killing of Nilgai (blue bulls) and wild boars with the assistance of 13 professional shooters to address crop damage caused by these animals.*

- Nilgai (*Boselaphus tragocamelus*) evolved in penninsular India during the Tertiary geological period, where they are also currently found.
- Nilgai antelopes live in *dry areas with a variety of land types*.
- They range from grassy, steppe woodlands, to hillsides. In India, they occur in the foothills of the Himalayan Mountains southward to Mysore.
- Nilgai antelope are **among the largest of the Asian antelopes**.
- The nilgai is only moderately gregarious.
- As per the existing provisions of the Wild Life (Protection) Act, the 'mukhiya' has been appointed as the nodal authority to identify and allow the killing of Nilgai (blue bulls) and wild boars.
- **Local mukhiya (village heads)** can authorise the killing of blue bulls and wild boars by hired shooters. **(Statement 2 is incorrect)**
- Besides causing crop damage, encounters with Nilgai also lead to road accidents, resulting in human casualties and loss of property.



3. d

### Rabies

*A recent case in Kerala, India highlights the ongoing threat Rabies remains a significant public health challenge with a nearly 100% fatality rate once symptoms develop.*

- Rabies is a vaccine-preventable, zoonotic, viral disease affecting the central nervous system.
- **It can affect both domestic and wild animals.**
- It is present on all continents except Antarctica, with over 95% of human deaths occurring in Asia and Africa.
- Rabies is one of the neglected tropical diseases (NTD) that predominantly affects already marginalized, poor and vulnerable populations.
- Bhutan becomes first country to sterilise all stray dogs after 14-year-long project.
- **Symptoms** – The incubation period is typically 2–3 months.
- Initial symptoms of rabies include generic signs like fever, pain and unusual or unexplained tingling, pricking, or burning sensations at the wound site.
- **Transmission** – People are usually infected following a deep bite or scratch from an animal with rabies, which is, in 99% of the cases, a dog.
- Transmission can also occur if saliva of infected animals comes into direct contact with mucosa (e.g. eyes or mouth) or fresh skin wounds.
- **Prevention** – Vaccinating dogs, including puppies, is the most cost-effective strategy for preventing rabies in people because it stops the transmission at its source.
- There are 2 forms of rabies that includes:
  1. Furious rabies
  2. Paralytic rabies
- Furious rabies results in hyperactivity, excitable behaviour, hallucinations, lack of coordination, hydrophobia (fear of water) and aerophobia (fear of drafts or of fresh air).
- Death occurs after a few days due to cardio-respiratory arrest.
- Paralytic rabies accounts for about 20% of the total number of human cases and runs a less dramatic and usually longer course than the furious form.

- Rabies is included in WHO's 2021–2030 Roadmap for the global control of neglected tropical diseases, which sets regional, progressive targets for the elimination of targeted diseases.
- **Bhutan** is first country to sterilise all stray dogs after 14-year-long project.
- **World Rabies Day** is observed on **September 28th** to commemorate the death of Louis Pasteur.
- *Louis Pasteur developed the first rabies vaccine in the 1880s* and successful treatment of Joseph Meister in 1885 marked a turning point led to the establishment of the Pasteur Institute in 1888.
- **Modern Prevention and Treatment** – Use of rabies immunoglobulin (Rabies Ig) and vaccines for post-exposure prophylaxis. Different treatment protocols for various exposure categories.
- Rabies Ig is specifically used for category 3 bites, which involve severe exposure such as transdermal bites or scratches and provides immediate protection by supplying ready-made antibodies
- **One Health Approach** – Emphasizes collaboration among veterinary, medical, and environmental sectors. Local bodies play a crucial role in animal control efforts
- **Future Goals** – Aim for zero rabies deaths by 2030. Need for robust surveillance mechanisms and coordination among various government sectors.

4. b

#### World Telecommunication Standardization Assembly (WTSA)

*The Department of Communications (DoT) has recently launched Outreach to Students and Academia for WTSA 2024.*

- World Telecommunication Standardization Assembly (WTSA) serves as the governing conference of the ITU (International Telecommunication Union) Standardisation Sector (ITU-T).
- The WTSA is a **quadrennial event**. (**Statement 2 is incorrect**)
- The WTSA 2024 is being held for the first time in ITU's history of 150 yrs in India from 14th-24th October 2024.
- It will be attended by world leader and experts of Telecom field from 190+ countries.

- WTSA-2024 is an opportunity for India to influence the global telecom agenda as we prepare for advancements like 6G and beyond.
- This event plays a pivotal role in setting global telecommunication standards, making India's hosting of the WTSA a significant milestone.
- **International Telecommunication Union (ITU)** – Is the United Nations specialized agency for information and communication technologies (ICTs).
- The Organization is made up of a membership of 194 Member States and more than 1000 companies, universities and international and regional organizations.
- Headquartered in Geneva, Switzerland, and with regional offices on every continent.
- ITU is the oldest agency in the UN family connecting the world since the dawn of the telegraph in 1865.

5. c

#### G-4 Countries

- The Group of Four (G4) countries are:
  - India
  - Brazil
  - Germany
  - Japan
- G4 are seeking permanent membership and reform of the UN Security Council (UNSC).
- Other plurilateral groupings, such as the L69 and C-10 also echoed these calls.
- The G4 Ministers reiterated the need for an increase in both permanent and non-permanent categories of UNSC membership, to enhance the participation of developing countries.
- The group highlighted the need for better representation for regions such as Africa, Asia-Pacific and Latin America and the Caribbean in permanent and non-permanent categories.
- **L69 group** – It was formed in 2007 to “achieve comprehensive reform of the Security Council and, ultimately, strengthen multilateralism”.
- The grouping include countries from Africa, Latin America and the Caribbean, Asia and the Pacific (Small Island Developing States).

- **African Union's Committee of 10 (C-10)** – It was created during a meeting of Ministers and Governors in Tunis in November 2008.
- The members of the C-10 are:
  - Algeria, Botswana, Cameroon, Egypt, Kenya, Nigeria,
  - South Africa, Tanzania, the Central Bank of West African States (CBWAS) and the Central Bank of Central African States (CBCAS).

**28-09-2024**

1) Consider the following statements:

1. Ol Doinyo Lengai, situated in Tanzania is the only volcano that expels carbonatite lavas in the world.
2. Volcanoes with enigmatic type of eruptions are unusually rich in iron.
3. Iron-rich magma found in extinct volcanoes could be a potent source of rare earth elements.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

2) Consider the following statements with respect to Non-Alcoholic Fatty Liver Diseases (NAFLD)

1. It is a silent disease with few or no symptoms.
2. Non-Alcoholic Fatty Liver Diseases (NAFLD) is a major non-communicable disease that account for more than 66% of deaths in the country.

Which of the above statement(s) is/are **incorrect**?

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

3) Consider the following statements with respect to Horse Gram

1. It is a pulse crop that can thrive in rain-fed and semi-arid conditions, making it a valuable asset for small-scale farmers.
2. The leguminous plant enriches the soil organic carbon content and supports the growth of the succeeding crop.
3. It has drought-resistant capacity and can withstand prolonged dry spells.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

4) Consider the following pairs:

<i>Missile Systems</i>		<i>Relevance</i>
1. Pinaka Launcher, India	–	Multi-Barrel Rocket
2. Nirbhay India	–	Sub-sonic cruise missiles,
3. HIMARS USA	–	Multiple rocket launcher,

How many of the pair(s) given above is/are correctly matched?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

5) Consider the following statements with respect to Global Innovation Index, 2024

1. It is published by the World Intellectual Property Organization (WIPO).
2. The Index ranks the innovation capabilities and results of world economies.
3. India ranks 39th among the 133 economies featured in the Global Innovation Index, 2024.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three

d. None of the above

## Answers

1. c

### Volcanoes

- A volcano is a rupture in the Earth's crust that allows lava, ash, and gases to escape from a magma chamber below the surface.
- Volcanoes with enigmatic type of eruptions are unusually rich in iron.
- Iron-rich magma found in extinct volcanoes could be a potent source of rare earth elements.
- Ol Doiyo Lengai is an active volcano that erupts the runniest lava on Earth.
- Ol Doiyo Lengai, situated in Tanzania is the only volcano that expels carbonatite lavas in the world.
- There are records of Ol Doiyo Lengai eruptions going back to the 1880s, and the volcano has been periodically active ever since.
- Carbonatite is extremely thin and saturated with alkali elements such as calcium and sodium.

2. d

### Non-Alcoholic Fatty Liver Diseases (NAFLD)

*Union Health Ministry has recently released the revised operational guidelines for Non-Alcoholic Fatty Liver Disease.*

- Non-alcoholic fatty liver disease (NAFLD) is a condition in which fat builds up in your liver.
- Non-alcoholic fatty liver (NAFL) and non-alcoholic steatohepatitis (NASH) are types of NAFLD.
- If a person have NASH, then they have inflammation and liver damage, along with fat in your liver.
- **Symptoms** – Usually NAFLD is a silent disease with few or no symptoms.
- **Causes** – Certain health conditions and diseases including obesity, metabolic syndrome and type 2 diabetes can cause to develop NAFLD.
- NCDs are strongly associated with behavioural risk factors such as tobacco use, alcohol use, poor diet, insufficient physical activity, and air pollution.

- **Treatment** – Doctors recommend weight loss to treat NAFLD, which is either NAFL or nonalcoholic steatohepatitis (NASH).

- Weight loss can reduce fat, inflammation, and fibrosis in the liver. No medicines have been approved to treat NAFLD or NASH.

- **NAFLD in India** – NAFLD is now recognized as a major non-communicable disease (NCD) and is becoming an important cause of liver disease in India.

- **Non-communicable diseases (NCDs) account for more than 66% of deaths in the country.**

- **India** became the **first country to integrate NAFLD into its National Programme for Prevention and Control of NCDs** in 2021.

- The community prevalence of NAFLD in India ranges from 9% to 32%, depending on various factors such as age, gender, area of residence and socioeconomic status.

- Out of 10 persons 1 to 3 persons will be having fatty liver or related disease.

- Union Health Ministry has recently released the revised operational guidelines for Non-Alcoholic Fatty Liver Disease.

- These documents are designed to improve patient care and outcomes related to NAFLD through informed, evidence-based practices.

- India has taken the lead in recognising NAFLD as a major non communicable disease.

3. c

### Horse Gram

- Horse gram is an ancient and often underutilised crop that holds immense potential for preserving genetic resources and strengthening farmers' resilience to changing climate.

- It is a **native to India** and is an important food legume crop in the peninsular region.

- The cultivation of horse gram is predominantly concentrated in the states of Karnataka, Andhra Pradesh, Tamil Nadu, Odisha, Bihar, Jharkhand, Maharashtra and Chhattisgarh.

- It is a pulse crop that can thrive in rain-fed and semi-arid conditions, making it a valuable asset for small-scale farmers.

- The leguminous plant enriches the soil organic carbon content and supports the growth of the succeeding crop.

According to the Indian Institute of Pulses Research, the total area under horse gram cultivation in India is approximately 507,000 hectares, producing 262,000 tonnes with a productivity of 516 kilograms per hectare.

- **Significance** – It is a low-cost pulse loaded with high protein.
- It is a source of protein (17.9– 25.3 %), carbohydrates (51.9–60.9 %), essential amino acids, energy, low content of lipid (0.58–2.06 %), iron, phosphorus, iron and vitamins such as carotene, thiamine, riboflavin, niacin and vitamin C.
- Horse gram has **antioxidant** and **osmolyte biosynthesis** qualities which makes it a sturdy crop to thrive in extreme heat and long periods of drought.
- It has a dual function protein that exhibits both lectin and lipoxygenase-like functions that enhances pests and pathogens resistance characteristics of horse gram.
- It has low fat and is blessed with dietary fibre, amino acids, carotene, thiamine, riboflavin, niacin, iron, vitamin C and phytochemicals.
- According to *Charak Samhita*, a Sanskrit text on ayurveda, horse gram is useful for curing piles, hiccups, abdominal lump, bronchial asthma, kidney stones, leukoderma and regulating perspiration.
- Due to the presence of beneficial bioactive compounds, horse gram possesses anti-diabetic and anti-ulcer qualities and helps in **controlling obesity**.

4. C

### Pinaka, Nirbhay and HIMARS

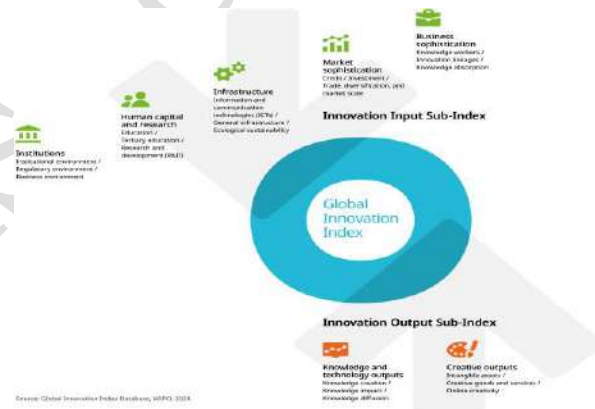
- **Pinaka** – Is a Multi Barrel Rocket Launcher (MBRL) is battle-proven an all-weather, indirect area fire Artillery Weapon System designed.
- It is being widely exploited and their ability.
- It is the first public-private partnership in Defence systems, between DRDO and Tata Advanced Systems (TASL).
- **Nirbhay** – It is a long-range, **subsonic cruise missile** designed and developed by India's Defence Research and Development Organisation (DRDO).
- **HIMARS (High Mobility Artillery Rocket System)** – it is a long- multiple rocket launcher, mobile, precision fires launcher.

- It was supplied by US to Ukraine.

5. c

### Global Innovation Index (GII), 2024

- The Global Innovation Index (GII) ranks world economies according to their innovation capabilities that aims to capture the multi-dimensional facets of innovation.
- It consists of roughly 80 indicators that are grouped into innovation inputs and outputs.
- The GI has 2 sub-indices:
  1. The Innovation Input Sub-Index
  2. The Innovation Output Sub-Index
- It consists of 7 pillars, each consisting of 3 sub-pillars.
- It measures innovation based on following criteria:



- **India** – Performs better in innovation outputs than innovation inputs in 2024.
- **India ranks 39th** among the 133 economies featured in the Global Innovation Index, 2024.
- In 2024, India had ranked 44th in innovation inputs. This position is higher than last year.
- India ranks 33rd in innovation outputs in the year 2024. This position is higher than last year.
- For India, 7 indicators have improved in the short-term and 5 indicators have worsened.

Year	GII Position	Innovation Inputs	Innovation Outputs
2020	48th	57th	45th
2021	46th	57th	45th
2022	40th	42nd	39th
2023	40th	46th	35th
2024	39th	44th	33rd

### 30-09-2024 & 29-08-2024

1) Consider the following statements with respect to Silo Projects

1. It is an initiative of Food Corporation of India (FCI) to strengthen storage and transportation infrastructure for essential commodities.
2. These silo projects are built on the Design, Build, Finance, Own and Operate (DBFOO) Model.

Which of the above statement(s) is/are correct?

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

2) The Indian Technical and Economic Cooperation Programme (ITEC), sometimes seen in the news, works under the aegis of?

- a. Ministry Of Finance
- b. Ministry Of External Affairs
- c. Ministry of Culture
- d. Ministry of Commerce and Industry

3) Consider the following statements with respect to Paryatan Mitra and Paryatan Didi

1. Aims to provide free electricity to households in India.
2. It aims to provide financial security to every girl and woman in India.

Which of the above statement(s) is/are correct?

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

4) Consider the following statements with respect to Rhesus macaques

1. They are Asian brown primates with red faces and rears.
2. Rhesus monkeys can thrive only in the Tropical climates.
3. They are accorded 'Least Concern' status under the International Union for Conservation of Nature red list.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

5) Consider the following statements with respect to the Biodiversity Beyond National Jurisdiction (BBNJ) Agreement

1. It aims to protect marine life in areas of the ocean that are not owned by any one country.
2. It supports the target of protecting 30 percent of the world's land and sea by 2030 that was set by Kunming-Montreal Global Biodiversity Framework.
3. India is not a signatory to this agreement.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All three
- d. None of the above

### Answers

1. c

### Silo Projects

- Silo Projects is an initiative of Food Corporation of India (FCI) to strengthen storage and transportation infrastructure for India's food grain supply chain.
- It ensures efficient and sustainable storage and movement of essential commodities.
- These silo projects are part of FCI's broader efforts to ensure food security and reduce losses by improving storage and transportation infrastructure.
- The silos are equipped with modern technology, ensuring better preservation of grains, reducing losses and supporting farmers by providing improved procurement facilities.
- It has successfully developed several state-of-the-art silo projects under the **Public-Private Partnership (PPP) model**.
- These silo projects, built on a *Design, Build, Finance, Own & Operate (DBFOO)* or *Design, Build, Finance, Operate & Transfer (DBFOT)* basis, have been developed with *private investment* and are now fully operational.
- These silos will significantly enhance the FCI's ability to ensure food security in several critical ways that include:
  - Enhanced Storage Capacity
  - Better Preservation
  - Reduced Losses
  - Efficient Handling and Bulk Storage
  - Automated Systems
  - Enables better quality control of stored grains.
  - Built with integrated rail and road transportation links,
  - Facilities designed for mechanized bulk loading and unloading
  - Lower Operating Costs
- Key Highlights of the Silo Projects:
  1. Darbhanga Silo Project (Bihar)
  2. Samastipur Silo Project (Bihar)
  3. Sahnewal Silo Project (Punjab)
  4. Baroda Silo Project (Gujarat)
  5. Chheheratta Silo Project (Punjab)
  6. Batala Silo Project (Punjab)

2. b

### Indian Technical and Economic Cooperation Programme (ITEC)

- The Indian Technical and Economic Cooperation Programme (ITEC) is the leading capacity building platform of the Ministry Of External Affairs that was instituted in 1964.
- It is one of the oldest institutionalized arrangements for international capacity building having trained officials from 160+ countries in both the **civilian and in the defence sector**.
- **Administering body** – Development Partnership Administration-II Division, **Ministry of External Affairs**.
- **The salient features of the ITEC are:**
  - **Annual offerings** – Nearly 10,000 fully-funded in-person training opportunities through about 400 courses at 100+ institutes in India.
  - **Recent achievements** – Since 2014, offered close to 100,000 world-class capacity building trainings and scholarships.
  - **Adaptability** – Continued operations during the COVID-19 pandemic by providing online healthcare and governance-related trainings to nearly 10,000 professionals.
  - **Customization** – Responds to country-specific requests for training in specific governance areas.
- The ITEC program utilizes various modalities to meet its capacity-building mandate:
  1. In-person (on-campus) courses.
  2. **eITEC** – Online trainings using digital delivery platforms.
  3. **ITEC-Executive** – Short-term, policy-focused, in-person trainings for senior government executives.
  4. **ITEC-Onsite and ITEC-Expert** – Onsite capacity building assignments carried out by Indian experts.

3. d

### Paryatan Mitra and Paryatan Didi

- Paryatan Mitra and Paryatan Didi aims to elevate *the overall experience for tourists* in destinations, by having them meet 'tourist-friendly' people.
- It is an initiative of Ministry of Tourism that trains and make awareness to all individuals



who interact and engage with tourists in a destination.

- Under the scheme, the training emphasised on the training of women and youth to enable them to develop new tourism products & experiences.
- The new experiences include heritage walks, food tours, craft tours, nature treks, homestay experiences and other innovative tourism products based on the potential of the destination.
- Tourism-specific training is being followed by general training in digital literacy and digital tools to ensure that the experiences they create are discoverable and visible to tourists, nationally and globally.
- It being launched as the pilot projects in 6 tourist destinations across India such as:
  - Orchha (Madhya Pradesh)
  - Gandikota (Andhra Pradesh)
  - Bodh Gaya (Bihar)
  - Aizawl (Mizoram)
  - Jodhpur (Rajasthan)
  - Sri Vijaya Puram (Andaman & Nicobar Islands)
- The vision of the scheme is to welcome one and all to experience Incredible India through Incredible Indians.

4. b

#### Rhesus Monkeys or Macaque (*Macaca mulatta*)

- Rhesus macaques are familiar brown primates with red faces and rears. (**Statement 1 is correct**)
- They have close-cropped hair on their heads, which accentuates their very expressive faces.
- Rhesus monkeys can thrive in a variety of climates and habitats. (**Statement 2 is incorrect**)
- They are accorded '**Least Concern**' status under the International Union for Conservation of Nature red list. (**Statement 3 is correct**)
- **Habitat** – Their natural range includes Afghanistan, Pakistan, India, Southeast Asia, and China.
- **Rh (from rhesus) factor** – The determination of the Rh (from rhesus) factor in human blood involves reaction with the blood

of this monkey, and a rhesus was the first monkey to be rocketed into the stratosphere.

- The rhesus monkey and other macaques are classified in the family Cercopithecidae (the Old World monkeys).
- **Behaviour** – They live in active, noisy troops that can include up to 200 animals.
- Though these monkeys are *good climbers and swimmers*, troops spend a lot of time on the ground.
- **Diet** – It includes roots, fruit, seeds, and bark, but also insects and small animals.
- **Human animal conflict** – Monkey bites are the second most common animal bites in India (after dog bites), and account for as much as a fifth of all bite injuries.
- The Primate Research Centre in Jodhpur in 2015 estimated that India's cities see about 1,000 monkey bites daily.
- **Indian grey langurs (*Semnopithecus entellus*)** – It is also commonly known as Hanuman langur.
- It stretches from the Himalayas in the north to Sri Lanka in the south and from Bangladesh in the east to Pakistan in the west.
- It is usually used to combat rhesus monkeys (*Macaca mulatta*).
- Langurs and rhesus monkeys are also often characterised as sworn enemies, with the latter believed to be scared of the black-faced, long-tailed primates.
- There is, however, no scientific evidence to back this claim.
- In 2012, the Wildlife Crime Control Bureau (WCCB) of the Ministry of Environment, Forests, and Climate Change, imposed a ban on the use of langurs to scare off monkeys.
- Langurs are protected under the Wildlife (Protection) Act, 1972, the Prevention of Cruelty to Animals Act, 1960 and the Convention of International Trade in Endangered Species (CITES).
- **Threats** – Deforestation and urban expansion has greatly damaged monkey habitat.

5. b

#### Beyond National Jurisdiction (BBNJ) Agreement or "Treaty of the High Seas"

*BBNJ was recently signed by the India to protect the marine life of the ocean that are not owned by India.*

- Treaty of the High Seas is an agreement was adopted on June 2023 by the Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction convened under the auspices of the United Nations.
- It is an agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas beyond National Jurisdiction.
- The goal of the BBNJ Agreement is to protect marine life in areas of the ocean that are not owned by any one country.
- **Beyond National Jurisdiction** are areas start 370 kilometres from any country's coastline and cover 2/3rd of the world's oceans.
- The Agreement addresses 4 main issues, which are:
  1. Marine genetic resources, including the fair and equitable sharing of benefits.
  2. Measures such as area-based management tools, including marine protected areas.
  3. Environmental impact assessments.
  4. Capacity-building and the transfer of marine technology.
- The treaty encourages an inclusive approach that combines traditional knowledge and modern science to protect the ocean.
- This agreement also helps meet the goals of Sustainable Development, especially SDG 14, which focuses on protecting life underwater.
- It bans harmful activities, such as destructive fishing practices and pollution, in the high seas.
- The Agreement is open for signature by all States and regional economic integration organizations from 20 September 2023 to 20 September 2025.
- It supports the target of protecting 30 % of the world's land and sea by 2030 that was set by **Kunming-Montreal Global Biodiversity Framework** in 2022.

- So far, 91 countries have signed the BBNJ Agreement, showing a growing global agreement on the need to protect marine life in the high seas.
- Countries like Australia, Canada, Chile, Colombia and many in the European Union have also joined this cause.
- **India – India has recently signed the BBNJ Agreement to protect marine life in the high seas. (Statement 3 is incorrect)**
- The **biggest threats** to marine life in India include *overfishing, pollution, habitat destruction and dredging*.

The country is home to more than 2,492 marine fish species, including 91 that are found only in Indian waters. About 50 of these species are considered threatened by the International Union for Conservation of Nature (IUCN).