

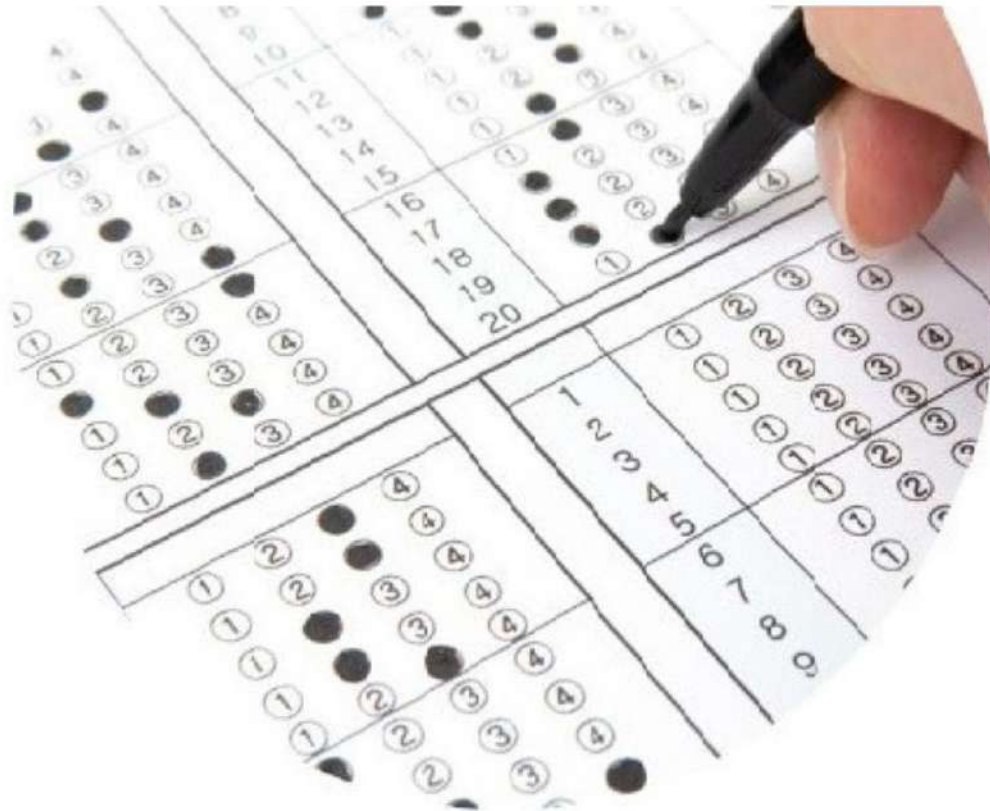


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# MONTHLY PRESTORMING

## NOVEMBER 2024

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



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## MONTHLY PRESTORMING

November 2024

05-11-2024

1) Consider the following statements with respect to Kodo Millet

1. The tropical and subtropical regions are best suited for its cultivation.
2. It is grown on poor soils, and widely distributed in arid and semi-arid regions.
3. Cyclopiazonic acid is one of the major mycotoxins associated with the kodo millet seeds that causes kodo poisoning.

How many of the statements given above are correct?

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

2) ERG25, sometimes seen in the news recently, is associated with?

- a. A gene that encodes the enzyme C-4 methyl sterol oxidase.
- b. An insectivorous fish that has a high breeding capacity.
- c. An exotic seaweed species native to Indo-Pacific Ocean.
- d. A super-Eddington-accreting black hole.

3) Consider the following statements with respect to Amrit Parampara

1. It aims to celebrate traditional arts and art forms of India with special focus on declining and dying art forms and traditions.
2. It is an initiative by the Ministry of Culture.
3. Kaveri Meets Ganga programme is the first programme under the Amrit Parampara series.

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 National Internet Exchange of India (NIXI)

1. It is an autonomous organisation that works under the aegis of the Ministry of Electronics and Information Technology.
2. '.IN' is a unique symbol of India and India's top-level domain on the Internet.
3. Indian Registry for Internet Names and Numbers (IRINN) provides allocation and registration services of Internet Protocol addresses (IPv4 & IPv6).

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 pairs:

<i>Exercise</i>		<i>Participants</i>
1. Vajra Prahar	–	India & UK
2. Garud Shakti	–	India & Nepal
3. SIMBEX	–	India & Singapore

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

### Answers

1. c

**Kodo Millet (*Paspalum Scrobiculatum*)**

*The consumption of kodo millet has recently led to the death of 10 elephants in Madhya Pradesh.*

- Kodo millet (*Paspalum scrobiculatum*) is also known as Kodra and Varagu in India.
- The crop is grown in India, Pakistan, the Philippines, Indonesia, Vietnam, Thailand and West Africa.
- The millet is believed to have originated in India and *Madhya Pradesh is one of the largest producers of the crop.*
- Apart from MP, the millet is cultivated in Gujarat, Karnataka, Chhattisgarh, and parts of Tamil Nadu.
- **The tropical and subtropical regions** are best suited for Kodo millet cultivation and *it is grown on poor soils, and widely distributed in arid and semi-arid regions.*
- Kodo millet is a **staple food** for many tribal and economically weaker sections in India.
- **Characteristics:**
  - Hardy crop
  - Drought tolerant
  - High yield potential
  - Excellent storage properties
  - Grows well in poor soils
  - Suited for arid and semi-arid regions
- **Nutritional Benefits:**
  - Rich in vitamins and minerals
  - Gluten-free.
  - Easy to digest.
  - Source of antioxidants.
  - Potential anti-carcinogenic properties.
  - Contains beneficial dietary fibre.
  - Positive effects on glucose absorption and cholesterol levels.
- Some of the famous dishes that can be made with kodo millets include idli, dosa, papad, chakli, porridges and rotis.
- **kodo poisoning** – One of the earliest known documentation of kodo millet poisoning was in the Indian Medical Gazette in 1922.

- Millets are more prone to fungal infection followed by bacterial and viral diseases and these infections adversely affect the grain and fodder yield.
- Ergot is a parasitic fungal endophyte that grows in the ear heads of various blades of grass, most frequently on kodo millet.
- Consumption of such kodo grains is often found to cause poisoning.
- **CPA (Cyclopiazonic acid) is one of the major mycotoxins associated with the kodo millet** seeds causing kodo poisoning which was first recognised during the mid-eighties in India.
- Kodo poisoning occurs mainly due to the consumption of kodo grains, when “maturing and harvesting if the grains had encountered with rainfall, resulting in a fungal infection leading to ‘poisoned kodo’.
- It is locally known as ‘Matawna Kodo’ or ‘Matona Kodo’ in northern India.
- *Kodo poisoning mainly affects the nervous and cardiovascular systems.*
- The **Symptoms** include “vomiting, giddiness, and unconsciousness, small and rapid pulse, cold extremities, shaking of limbs and tremors.”
- Researchers have advocated the use of biocontrol agents.

2. a

### ERG25

*It has been recently found that ERG25 is linked with the nickel tolerance which highlights the fundamental cellular processes and potential therapeutic applications.*

- ERG25 is a conserved gene found across species that encodes C-4 methyl sterol oxidase enzyme.
- It is *essential component of sterol biosynthesis pathway.*
- It is present in fungi, mammals, and other eukaryotes which is highly conserved across evolution.
- It functions similarly in different organisms.
- **Primary Functions** – In Sterol Biosynthesis, ERG25 roles include:
  - Converts sterol intermediates.
  - Essential for cholesterol production in mammals.

- Critical for ergosterol synthesis in fungi.

*Sterol biosynthesis is a complex process that produces ringed lipids called sterols, which are vital for eukaryotic life.*

*Sterols are found in cell membranes and control their permeability and function.*

- **Newly Discovered Role** – It includes:
  - Provides protection against nickel toxicity.
  - Influences metal tolerance.
  - Links metabolism to environmental stress.

3. c

### Amrit Parampara

*'Kaveri Meets Ganga' is the First Programme under Amrit Parampara festival series was recently held at Kartavya Path and Centre for Cultural Resources and Training (CCRT).*

- Amrit Parampara is a special festival series to unite India through art and culture.
- It aims to celebrate traditional arts and art forms of India with special focus on declining and dying art forms and traditions across performing arts, visual arts and literature.
- The series is curated with innovative programs anchored in traditional art forms with modern packaging and technology based interactive and immersive experiences.
- It is **an initiative by the Ministry of Culture**.
- **Kaveri Meets Ganga** – Is the **first program** under the Amrit Parampara series.
- It brings the best of dance and musical traditions from South India to North India and also showcases artistic traditions from North India in the spirit of Ek Bharat Shrestha Bharat.
- It will feature a distinguished line-up of traditional performances.
- It was **jointly organized by the Sangeet Natak Akademi, Kalakshetra & Centre for Cultural Resources and Training (CCRT)**.
- The Sangeet Natak Akademi was set up in 1953 for the promotion of performing arts.
- To know more about Sangeet Natak Akademi [click here](#)

- **Centre for Cultural Resources and Training (CCRT)** – Is one of the **premier institutions** working in the field of linking education with culture.

- It was **established in 1979**, pioneered by Smt. Kamaladevi Chattopadhyay and Dr. Kapila Vatsyayan.

- It functions as an **autonomous organization under the aegis of Ministry of Culture**.

- CCRT has been contributing to the strengthening of the foundation of the nation by making education culture based and meaningful.

- The CCRT has its **headquarters in New Delhi** and Four Regional Centres at Udaipur in the west, Hyderabad in the south, Guwahati in the north-east and Damoh in Central India to facilitate the widespread dissemination of Indian art and culture.

- The CCRT revitalizes the education system by creating an understanding and awareness among teachers, students and educational administrators.

- CCRT's main thrust is to make variety of training programmes for in-service teachers, teacher educators, educational administrators and students throughout the country.

- It also **organizes special training programmes** for the **physically and mentally challenged children**.

4. b

### National Internet Exchange of India (NIXI)

*The new office of the National Internet Exchange of India (NIXI) was recently inaugurated at the World Trade Centre, New Delhi.*

- National Internet Exchange of India (NIXI) is a **not for profit Organization** under section 8 of the Companies Act 2013 that was registered on 19th June, 2003.
- It works under the aegis of the **Ministry of Electronics and Information Technology**.
- It aims to promote internet penetration in the country as well as across the globe.
- **Primary purpose** – To facilitate exchange of domestic Internet traffic between the peering Internet service provider (ISP), Content players and any other organizations with their own Autonomous system (AS) number.



- The **Main Objectives** to be pursued by the Company on its incorporation are:
  - To Promote Internet,
  - To set up, when needed, in select location(s)/parts/regions of India Internet Exchanges/Peering Points,
  - To enable effective and efficient routing, peering, transit and exchange of the Internet traffic within India,
  - To continuously work for enhancing and improving the quality of Internet and Broadband services and
  - Set up .Internet Domain Name Operations and related activities.
- **Indian Registry for Internet Names and Numbers (IRINN)** – IRINN is a division functioning under NIXI.
- It is a not-for-profit, Affiliates based entity, with the primary goal of allocation of Internet resources to its Affiliates.
- It provides allocation and registration services of Internet Protocol addresses (IPv4 & IPv6) and Autonomous System numbers to its Affiliates.

5. a

#### Vajra Prahar, Garud Shakti & SIMBEX

- **Exercise 'Vajra Prahar'** – It is an **Army exercise** between **India and USA**.
- Aim of the exercise is to promote military cooperation between India and the US through enhancement of interoperability, joint-ness and mutual exchange of special operations tactics.
- The exercise will enhance combined capabilities in executing joint Special Forces Operations in desert/ semi desert environment.
- The exercise will focus on high degree of physical fitness, joint planning and joint tactical drills.
- The exercise is scheduled to be *conducted* at Orchard Combat Training Centre in Idaho, **USA**.
- This will be second exercise of the year *between Indian and the US Army*, the previous being **Exercise YUDH ABHYAS 2024**, conducted at Rajasthan in September 2024.
- **Exercise 'Garud Shakti'** – It is a joint **Army exercise** between **India and Indonesia**.

- The **9th edition** of the exercise will be conducted from November 1 to 12 at **Cijantung in Jakarta, Indonesia**.
- The exercise is designed to develop bilateral military cooperation and strengthen bond between two armies through conduct of discussions and rehearsal of tactical military drills.
- **SIMBEX** – Is a **maritime (Naval) exercise** between the **Indian Navy and the Republic of Singapore Navy (RSN)**.
- The 31st edition of SIMBEX was held in the Eastern Naval Command at **Visakhapatnam**.
- It began as '*Exercise Lion King*' in 1994, has since evolved into one of the most significant bilateral maritime collaborations between the Indian Navy and the Republic of Singapore Navy (RSN).

**06-11-2024**

1) Consider the following statements with respect to Asian Buddhist Summit

1. It is first of its kind, which was organised by the Ministry of Culture of India in collaboration with the International Buddhist Confederation.
2. 'Role of Buddha Dhamma in Strengthening Asia' is the theme of the summit.
3. Buddha Bhoomi Vandan Yatra programme is an initiative by the International Buddhist Confederation (IBC).

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:

1. Indo-Kazakh joint venture company (JVC) will act as a catalyst in developing titanium value chain within India.
2. Indian Rare Earths Limited works under the aegis of the Ministry of Mines.

Which of the statements given above is/are correct?

- a. 1 only
- b. 2 only

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

3) Consider the following statements with respect to Financial Intelligence Unit-India (FIU-IND)

1. It act as the central national agency responsible for receiving, processing, analysing and disseminating information relating to suspect financial transactions.
2. It is an independent body reporting directly to the Economic Intelligence Council (EIC) headed by the Finance Minister.
3. FINNET 2.0 provide quality financial intelligence for safeguarding the financial system, being one of the most sophisticated system used by any FIU.

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 Ground Penetrating Radar (GPR) Survey

1. It is a shallow, high-resolution geophysical method that uses low-frequency, pulsed, electromagnetic waves.
2. It is used to map and assess the layers, structures and other aspects below the surface of the ground.

Which of the statements given above is/are correct?

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

5) Consider the following statements with respect to Proba-3 Mission

1. It is first precision formation flying mission in the world that will provide valuable insights into solar corona dynamics.
2. This mission will be launched by India.

3. It is an initiative of National Aeronautics and Space Administration (NASA).

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. b

### Asian Buddhist Summit

*The President of India graced the first Asian Buddhist Summit that was recently held at New Delhi.*

- The first Asian Buddhist Summit was organised by the Ministry of Culture, Government of India, in collaboration with the International Buddhist Confederation (IBC).
- It was held at **New Delhi**.
- **Theme** – Role of Buddha Dhamma in Strengthening Asia.
- **Features** – It will bring together Buddhist ‘Sangha’ leaders, scholars, experts and practitioners from various traditions across Asia to foster dialogue, promote understanding and address contemporary challenges faced by the Buddhist community.
- **Buddha Bhoomi Vandana Yatra programme** – It is **an initiative of the Indian Council for Cultural Relation. (Statement 3 is incorrect)**
- It aims to promote cross-cultural understanding and facilitate the exploration of India’s rich Buddhist heritage.
- Under this programme, ICCR has invited 23 young Buddhist scholars from Bhutan, Cambodia, Japan, Laos, Malaysia, Mongolia, Nepal, South Korea, Sri Lanka, Taiwan, Thailand and Vietnam.
- **Buddha Bhoomi Vandana Yatra** – Is a cultural and educational programme that aims to provide young Buddhist scholars a deeper understanding of India’s Buddhist heritage.

2. a

### Indo-Kazakh Joint Venture Company (JVC)

*Indian Rare Earths Limited, and Ust-Kamenogorsk Titanium and Magnesium Plant JSC, Kazakhstan Signed an Agreement to establish JVC for the production of Titanium Slag in India.*

- Indo-Kazakh Joint Venture Company (JVC) was established by an agreement between Indian Rare Earths Limited and Ust-Kamenogorsk Titanium and Magnesium Plant JSC, Kazakhstan.
- The JVC will act as a catalyst in *developing titanium value chain within India* as it shall beneficiate low grade ilmenite into high grade titanium feedstock.
- **Indian Rare Earths Limited (IREL India Limited)** – Is a Central Public Sector Enterprises (CPSEs) that **works under the aegis of the Department of Atomic Energy (DAE)**, India.
- It will also result in *employment generation opportunity* in the state of **Odisha**.
- IREL commissioned its *largest flagship Mining & Mineral separation unit* Orissa Sands Complex (OSCOM) at Chatrapur, **Odisha** in 1986.
- IREL generates surplus ilmenite in its Odisha operations and is globally recognised for the quality of its minerals and rare earth compounds.
- **Ust-Kamenogorsk Titanium and Magnesium Plant JSC, (UKTMP JSC), Kazakhstan** – Is one of the world's largest vertically integrated titanium producers, spanning raw material extraction to high-value products, including titanium sponge and ingots.
- UKTMP's products are certified by leading aerospace manufacturers such as Boeing and Airbus, and 100% of its titanium products are exported to developed countries.

3. c

### **Financial Intelligence Unit-India (FIU-IND)**

*Financial Intelligence Unit-Qatar (FIU-Qatar) has recently appreciated the IT system (FINNET 2.0) used by FIU-IND during the India-Qatar Financial Intelligence Units (FIUs) meet in New Delhi.*

- FIU-IND is the central, national agency responsible for receiving, processing, analysing and disseminating information relating to suspect financial transactions to enforcement agencies and foreign FIUs.

- Both FIU-IND and Financial Intelligence Unit-Qatar (FIU-Qatar) are members of the Egmont Group and Financial Action Task Force (FATF).
- **Functions** – Act as the central reception point for the following:
  - Cash Transaction reports (CTRs),
  - Non-Profit Organisation Transaction Report (NTRs),
  - Cross Border Wire Transfer Reports (CBWTRs),
  - Reports on Purchase or Sale of Immovable Property (IPRs) and
  - Suspicious Transaction Reports (STRs) from various reporting entities.
- Analyse received information in order to uncover patterns of transactions suggesting suspicion of money laundering and related crimes.
- Share information with national intelligence/law enforcement agencies, national regulatory authorities and foreign Financial Intelligence Units.
- Establish and maintain national data base on the basis of reports received from reporting entities.
- Coordinate and strengthen collection and sharing of financial intelligence through an effective national, regional and global network to combat money laundering and related crimes.
- Monitor and identify strategic key areas on money laundering trends, typologies and developments.

*The Egmont Group of Financial Intelligence Units (EG) is an international organization that facilitates cooperation between financial intelligence units (FIUs) to prevent and investigate money laundering and terrorist financing.*

- **FINnet 2.0** – To provide quality financial intelligence for safeguarding the financial system from the abuses of money laundering, terrorism financing, and other economic offenses.
- It is one of the most sophisticated system used by any FIU.
- **Financial Action Task Force (FATF)** – Leads global action to tackle money laundering, terrorist and proliferation financing.



- The FATF researches how money is laundered and terrorism is funded, promotes global standards to mitigate the risks, and assesses whether countries are taking effective action.
- Both FIU-IND and Financial Intelligence Unit-Qatar (FIU-Qatar) are members of the Financial Action Task Force (FATF).

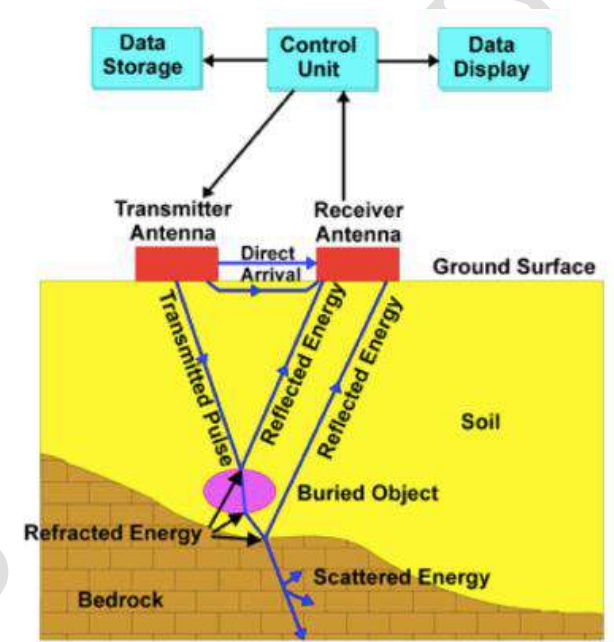
4. b

### Ground Penetrating Radar (GPR) Survey

*Archaeological Survey of India recently used ground penetrating radar (GPR) survey to find about the mystery of chamber inside Jagannath temple.*

- Ground penetrating radar (GPR) is a shallow, **high-resolution geophysical method** that uses high-frequency, pulsed, electromagnetic waves to image the subsurface.
- A GPR unit transmits electromagnetic energy into the ground which is reflected, refracted or scattered back to the surface depending on the features it encounters.
- Typically GPR is limited to depths of *approximately 10 meters*, but in highly resistive subsurface materials, such as salt or ice, *depths of 100s of meters may be possible*.
- Integration of GPR data with other surface geophysical methods, such as seismic, resistivity or electromagnetic methods, reduces uncertainty in site characterization.
- **Uses** – GPR is commonly used for environmental, engineering, archaeological, and other high-resolution shallow investigations.
- It can be used to map subsurface features such as:
  - Depth to bedrock, depth to the water table,
  - Depth and thickness of soil and sediment strata (including under freshwater bodies) and
  - Buried stream channels, and the location of cavities and fractures in bedrock.
- Other uses include locating objects such as pipes, drums, tanks, cables, buried waste, or buried utilities; mapping landfill and trench boundaries; and mapping contaminated groundwater.
- **Working mechanism** – An electromagnetic pulse is emitted from a transmitter antenna.

- When the wave encounters a layer or object with different electrical properties, part of the energy is reflected back toward the surface where a receiver antenna records the signal.
- **Jagannath temple** – In a recent survey conducted by the Archaeological Survey of India (ASI), stated that *no secret chamber found inside Jagannath temple*.
- To know more about Jagannath temple [click here](#)



5. b

### Proba-3 Mission

*The government of India recently announced that India will soon launch European Union's Solar Observatory Satellite Proba-3.*

- Proba-3 Mission is first precision formation flying mission in the world that will provide valuable insights into solar corona dynamics.
- It is an **initiative of European Space Agency (ESA)**. (Statement 3 is incorrect)
- It will be **launched by India** in December 2024.
- The Proba-3 satellite will be India's third such launch for the EU, with previous missions supporting the Proba-1 and Proba-2 satellites.
- **Features** – The mission will demonstrate formation flying in the context of a large-scale science experiment.
- The two satellites will together form a 144-m long solar coronagraph to study the Sun's faint corona closer to the solar rim than has ever before been achieved.

- Beside its scientific interest, the experiment will be a perfect instrument to measure the achievement of the precise positioning of the two spacecraft.
- It will be enabled using a wide variety of new technologies.

- a. World's most expensive chicken breeds.
- b. Large space rocks like asteroid.
- c. A rare event of Auroras formed in the mid-latitudes.
- d. A species of perennial tropical grass native to the African grasslands.

**07-11-2024**

1) Consider the following statements with respect to Empowered Committee for Animal Health (ECAH)

1. It is chaired by the Secretary, Department of Animal Husbandry and Dairying (DAHD).
2. The members represented on the committee include experts from Central Drug Standard Control Organization (CDSCO) and Department of Biotechnology (DBT).
3. Poultry Disease Action Plan is an initiative by Department of Animal Husbandry and Dairying (DAHD).

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 NAMO Drone Didi

1. It is a central sector scheme for providing Drones to the Women Self Help Groups under Deendayal Antyodaya Yojana - National Rural Livelihoods Mission.
2. The Lead Fertilizer Companies (LFCs) that are responsible for the States will be the implementing agencies of the scheme at the State level.

Which of the statements given above is/are correct?

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

3) Chicxulub, sometimes seen in the news recently, is associated with?

4) Consider the following statements with respect to PM-Vidyalaxmi Scheme

1. It is a central sector scheme that seeks to provide financial support to meritorious students.
2. The scheme will be applicable to the top quality higher educational institutions of the nation, as determined by the National Institutional Ranking Framework rankings.

Which of the statements given above is/are correct?

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

5) Consider the following statements:

1. Permafrost is ground that stays frozen that contains only the ice.
2. The only way to keep permafrost carbon in the ground is to quickly reduce and ultimately eliminate greenhouse gas emissions from human activities.
3. The Global Carbon Project is an initiative by Conservation International.

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. b

**Empowered Committee for Animal Health (ECAH)**

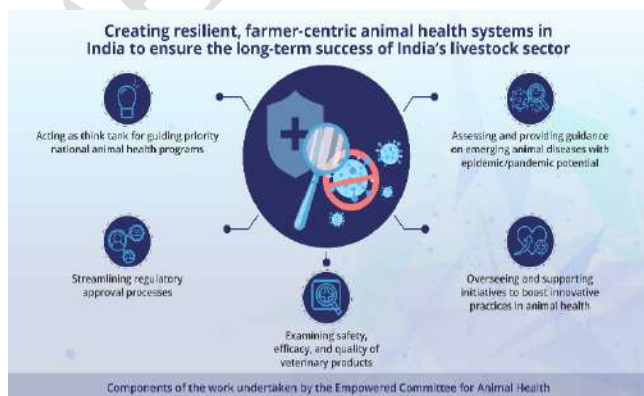
*Empowered Committee for Animal Health has recently reviewed the Advancements Made in India's Animal Health Sector.*

2. c

### NAMO Drone Didi

- Empowered Committee for Animal Health (ECAH) was established in 2021 that serves as *think tank of the Department of Animal Husbandry and Dairying (DAHD)*.
- It provides evidence-based insights and policy recommendations on national health programs, emerging disease threats, One Health initiatives, and regulatory frameworks for veterinary vaccines, drugs and biological.
- ECAH is focused on creating resilient, farmer-centric animal health systems in India and bring forth changes to ensure the long-term success of India's livestock sector by:
  - Acting as a think tank to provide inputs on animal health programmes of national importance.
  - Streamlining and improving the process of regulatory approval to protect public, animal health, and the environment by examining the safety, efficacy, and quality of veterinary products.
  - Overseeing and supporting programmes/initiatives to drive uptake of innovative practices in the Indian animal health sector.
  - Assessing the threat of and offering guidance on emerging animal diseases that have epidemic/pandemic potential.
- ECAH works under the aegis of the Office of Principal Scientific Adviser (PSA) to the Government of India.
- ECAH is **chaired by the Principal Scientific Adviser (PSA), Government of India**. (Statement 2 is incorrect)
- It is **vice-chaired by the Secretary, Department of Animal Husbandry and Dairying (DAHD)**.

- NAMO Drone Didi aims to provide drones to 14500 selected Women SHGs during the period from 2024-25 to 2025-2026 for providing rental services to farmers for agriculture purpose.
- It is a central sector scheme to provide drones to the Women Self Help Groups (SHGs) under *Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM)*.
- The Scheme will be **governed at the Central level** by:
  - Empowered Committee of the Secretaries of Department of Agriculture & Farmers' Welfare,
  - Department of Rural Development,
  - Department of Fertilizers, Ministry of Civil Aviation and
  - Ministry of Women and Child Development.
- The **Implementation and Monitoring Committee headed by the Additional Secretary, Department of Rural Development** will be responsible for effective planning, implementation and monitoring of the scheme.
- **The Lead Fertilizer Companies (LFCs) responsible for the States will be the implementing agencies of the scheme at the State level.**
- LFCs will establish necessary coordination with the State Departments, Drone manufacturers, Cluster Level Federations of SHGs/SHGs and the farmers/beneficiaries and so on.
- The drones will be procured by the LFCs through a fair and transparent process and the ownership of drones will be placed with the CLF of SHGs or SHGs.
- **Features** – It will provide overall advice and guidance to all technical matters related to the implementation of the scheme.
- Under the scheme, a Central Financial Assistance at 80% of the cost of drone and accessories/ancillary charges up to a maximum of **8 lakhs rupees** will be provided to the women SHGs for purchase of drones as a package.
- Under the scheme, not only the drones but, **drones as a package will be supplied.**



- The package will consists of:
  - Basic drone with spray assembly for spraying liquid fertilizers and pesticides,
  - Drone carrying box and standard battery set,
  - Downward facing camera and dual-channel fast battery charger,
  - Battery charger hub, anemometer, pH meter and 1 year onsite warranty on all items.

3. b

### Chicxulub

- The Chicxulub crater is an impact crater buried underneath the Yucatán Peninsula in Mexico.
- The Chicxulub impact event occurred approximately 66 million years ago.
- **Impact site** – Off the coast of Mexico's Yucatan Peninsula.
- It is created a crater roughly 150 kilometres (93 miles) in diameter.
- **Immediate Effects** – Released energy equivalent to about 10 billion Hiroshima atomic bombs.
- Created a global tsunami hundreds of meters high.
- Vaporized rock that was ejected into the atmosphere.
- Triggered worldwide earthquakes and volcanic eruptions.
- Generated intense heat that caused global wildfires.
- **Environmental Consequences** – Dust and aerosols blocked sunlight for months or years.
- Global temperatures dropped significantly ("impact winter").
- Acid rain from sulfur-rich rocks.
- Massive die-offs of vegetation due to lack of sunlight.
- Disruption of photosynthesis worldwide.
- **Mass Extinction** – Caused the extinction of approximately 75% of plant and animal species.
- Most famously, led to the extinction of non-avian dinosaurs.

- Wiped out marine reptiles like plesiosaurs and mosasaurs.
- Eliminated flying reptiles (pterosaurs) and Many marine organisms, including ammonites, went extinct.

4. c

### PM-Vidyalaxmi Scheme

*The Cabinet has recently approved PM-Vidyalaxmi scheme to provide financial support to meritorious students.*

- PM-Vidyalaxmi Scheme aims to make higher education more accessible in India.
- **Key Features** – It is a Central Sector scheme targeting meritorious students.
- It focuses on removing financial barriers to higher education.
- Implements recommendations from National Education Policy 2020.
- The scheme will be administered through a simple, transparent and student-friendly system that will be inter-operable and entirely digital.
- **Eligibility** – Any student who gets admission in quality Higher Education Institution (QHEIs) will be eligible to get *collateral free, guarantor free loan from banks and financial institutions.*
- The loan can cover full amount of tuition fees and other expenses related to the course.
- The scheme will be applicable to the top quality higher educational institutions of the nation, as determined by the National Institutional Ranking Framework rankings (NIRF).
- It includes all HEIs, government and private that are ranked within the top 100 in NIRF in overall, category-specific and domain specific rankings.
- **Loan Features** – Collateral-free and guarantor-free education loans.
- 75% credit guarantee by government for loans up to rupees 7.5 lakhs.
- Priority for government institution students and technical/professional courses.

5. a

### Permafrost



- Permafrost is ground that stays frozen. **It may contain soil, peat, rocks and ice. (Statement 1 is incorrect)**
- Often, remnants of ancient plants and animals such as the now extinct woolly mammoth can also be seen.
- In such cold conditions, plants mainly grow during summer.
- **Impacts of climate change** – Usually, the top “active” layer of soil may thaw naturally in the warmer months, the lower layers typically stay frozen.
- But now that human-induced climate change is making soils warmer, the thawed season is growing longer and the permanently frozen carbon is thawing too.
- In thawed soil, microbes get to work decomposing dead plants and other decaying organic matter.
- When this process happens in the presence of oxygen, carbon dioxide (CO<sub>2</sub>) is released. In the absence of oxygen (such as in lakes and water-saturated soils), methane (CH<sub>4</sub>) is released.

*Methane is a more powerful greenhouse gas than CO<sub>2</sub> as it holds more heat in the atmosphere.*

- The melting of ice in permafrost is making more of the land wet with low oxygen levels, so more methane is being released.

*The only way to keep permafrost carbon in the ground is to quickly reduce and ultimately eliminate greenhouse gas emissions from human activities.*

- **Global Carbon Project** – Is a Global Research Project of **Future Earth** and a research partner of the **World Climate Research Programme. (Statement 3 is incorrect)**
- It was formed to work with the international science community to establish a common and mutually agreed knowledge base to support policy debate and action to slow down and ultimately stop the increase of greenhouse gases in the atmosphere.

**08-11-2024**

1) Consider the following statements with respect to Indian Military Heritage Festival (IMHF)

1. It aims to create an international platform for military engagement & diplomacy by creating communication channels on the lines of the Raisina Dialogue.

2. It is the flagship annual event organized by the Integrated Defence Staff.
3. Project ‘Shaurya Gatha’ is an initiative of the Department of Military Affairs to conserve and promote India’s military heritage through education and tourism.

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 Engineering Exports Promotion Council (EEPC), India

1. It is the premier trade and investment promotion organisation in India.
2. It works under the aegis of the Ministry of Commerce and Industry.
3. Indian Engineering Exhibition (INDEE) is an initiative of it.

How many of the statements given above are correct?

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

3) Semaglutide, sometimes seen in the news, is associated with?

- a. Latitude that equally divides the northern part of the Earth.
- b. A drug to treat diabetes and obesity.
- c. A new species that was recently discovered in the Western Ghats.
- d. A theory that opposes new technologies.

4) Consider the following statements with respect to Osteoporosis

1. Osteoporosis is a progressive disease that weakens bones, increasing the risk of fractures.
2. It can be completely cured through certain lifestyle and dietary modifications.

Which of the statements given above is/are correct?

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

5) Consider the following statements with respect to PARAS-2 (PRL Advanced Radial velocity Abu Sky Search-2)

- It is a state-of-the-art high-resolution fibre-fed spectrograph that aims to unveil the super-Earth-like worlds.
- It is situated at Rajasthan.

Which of the statements given above is/are correct?

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

## Answers

1. b

### Indian Military Heritage Festival (IMHF)

The 2nd edition of the annual Indian Military Heritage Festival (IMHF) is all set to kick start in New Delhi.

- The Indian Military Heritage Festival is the flagship annual event **organized by the United Service Institution of India (USI)** through its Centre for Military History and Conflict Studies (CMHCS). (**Statement 2 is incorrect**)
- The 2nd edition of the festival is a two-day festival that aims to focusing on India's national security, foreign policy, military history and military heritage.
- The festival will include the following:
  - Global and Indian think tanks,
  - Corporations, public and private sector undertakings, non-profits, academicians, and research scholar.
- India's military history and heritage are extensive and diverse, spanning epochs of warfare and valour.

The first annual IMHF was held on 21-22 October 2023 at the Manekshaw Centre in New Delhi.

- United Service Institution of India (USI)** – It was **founded in 1870** by a soldier scholar, Colonel (later Major General) Sir Charles MacGregor.
- It is India's **oldest defence think tank** that conducts "The Indian Military Heritage Festival".
- It was founded for 'furtherance of interest and knowledge in the art, science and literature of the Defence Services.'
- The USI-Centre for Military History and Conflict Studies (CMHCS) encourages objective study of all facets of Indian military history with a special emphasis on the history of the Indian Armed Forces.
- Project 'Shaurya Gatha'** – It will be launched on the side-lines the Indian Military Heritage Festival (IMHF).
- The project is an **initiative of the Department of Military Affairs and the USI of India** which aims to conserve and promote India's military heritage through education and tourism.

2. c

### Engineering Exports Promotion Council (EEPC), India

- Engineering Exports Promotion Council (EEPC), India is the **premier trade and investment promotion organisation in India**.
- It **works under the aegis of the Ministry of Commerce & Industry** and caters to the Indian engineering sector.
- EEPC, India is the first EPC in India to have a website, to be ISO certified and also to e-catalogue the product profiles.
- It acts as an **advisory body**, as it actively contributes in the policies of Government of India and acts as the prime conduit between the Indian Engineering fraternity and the Government.
- It was **set up in 1955**, EEPC India now has a membership base of around 9,500 predominantly drawing 60% from MSME segment.
- INDEE (Indian Engineering Exhibition)** and its domestic counterpart – IESS (International Engineering Sourcing Show) are **two flagship events of EEPC India**.

- Indian Engineering Exhibition (INDEE) is EEPC India's own brand and is *one of the largest expositions of engineering in the world*.
- Over a period of 46 years INDEE has been established as the largest and most important showcase for Indian engineering abroad.
- International Engineering Sourcing Show (IESS) is the largest display in the country of engineering products and services, every year.
- IESS is recognised as the *only engineering sourcing event in India*.

3. b

### Semaglutide

- Ozempic, known generically as semaglutide, is an *injectable prescription drug* that treats diabetes and obesity.
- It was approved in 2017 by the United States Food and Drug Administration (FDA) for use in adults with type 2 diabetes.
- Semaglutide belongs to the *class of drugs called Glucagon-like peptide-1 (GLP-1) receptor agonists*.
- This drug mimics the actions of the hormone GLP-1 made by the small intestine, which the gut releases after eating.
- The drugs can slow down digestion and reduce the appetite, while triggering the pancreas to release more insulin.
- The use of this drug leads to weight loss and some benefits to the heart and kidney have also been observed.
- Semaglutide is **available in oral (Rybelsus) and injectable (Ozempic/Wegovy) forms**.
- The injectables result in weight losses of about 10 to 15% in patients.
- **Only oral form (Rybelsus) available in India.**
- The challenges for the drugs include:
  - High cost (10,000 rupees per month), limited insurance coverage and high out-of-pocket expenditure.
  - Side effects (nausea, vomiting, bloating), risk of pancreatitis, requires lifetime treatment and not universal (not suitable for all patients).

4. a

### Osteoporosis

- Osteoporosis is a progressive bone disease characterized by decreased bone density and strength, leading to fragile, brittle bones that increase the risk of fractures, especially in the spine, hips and wrists.
- **Causes** – Caused by hormonal changes at menopause.
- Estrogens have an important function in preserving bone mass in adulthood, and bone loss occurs as estrogen levels decline, usually from around the age of 50 years.
- **Symptoms** – Spine, wrist and hip fractures, Height loss and Spinal deformities.
- **Prevention and treatment** – Consumption of diet which are rich in protein, calcium and vitamin D.
- **Osteoporosis cannot be completely cured**, but certain lifestyle and dietary factors can lower the risk of it.
- Weight-bearing exercises, such as brisk walking, jogging and dancing, are great for increasing bone density.
- Strength training, such as lifting weights, helps with stability and flexibility, which reduces the risk of falling.

5. c

### PARAS-2 (PRL Advanced Radial velocity Abu Sky Search-2)

*An international team of scientists led by the Physical Research Laboratory (PRL) has recently discovered an exoplanet outside our solar system that is five times bigger and 60 times heavier than the Earth.*

- PARAS-2 is a state-of-the-art high-resolution fiber-fed spectrograph that operates in 380-690 nm wave-band, aimed to unveil the super-Earth-like worlds.
- It is situated at the **Mount Abu of Rajasthan**.
- **TOI-6651b** – Is the **sub-Saturn class planet** that was recently discovered using the PARAS-2.
- It is located *690 light years away from the Sun*, the newest discovered planet is the third most dense sub-Saturn class located at the *edge of the Neptunian desert*.
- It is 60 times heavier than Earth.

**09-11-2024**

1) Consider the following statements with respect to India-EU Trade and Technology Council (TTC)

1. It is a key forum to deepen the strategic partnership on trade and technology between the two partners.
2. This TTC is the second such bilateral forum for the EU, after the one launched with the United States (US) in June 2021.

Which of the statements given above is/are correct?

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

2) Consider the following statements with respect to Equine Piroplasmiasis

1. It is a blood-borne disease caused by protozoal parasites, Theileria equi or Babesia caballi.
2. It is a zoonotic disease that can affect horses, mules, donkeys and zebra.
3. Indian Council of Agricultural Research-National Research Centre on Equines (ICAR-NRC) is situated at New Delhi.

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 statements with respect to Centre for Development of Telematics (C-DOT)

1. It is the premier Telecom R&D centre of the Department of Telecommunications (DoT).
2. It is the first of its kind in the country which is solely focussed on advanced research and applications in the areas of cryptography and information security.
3. It is a registered 'public funded research institution' with the Department of Scientific and Industrial Research (DSIR), Ministry of Science & Technology.

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) Consider the following statements with respect to Centralized Pension Payments System (CPPS)

1. It is a decentralized system that enables the pensioners to receive their pension from any bank, any branch, anywhere in the country.
2. It is part of ongoing Centralized IT Enabled System (CITES 2.01) of Employees' Provident Fund Organisation.

Which of the statements given above is/are correct?

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

5) Consider the following statements with respect to Extreme Weather Events

1. An extreme weather event is rare at a particular place and time of year, with unusual characteristics in terms of magnitude, location, timing, or extent.
2. According to the Annual extreme weather assessment, Madhya Pradesh recorded highest number of days with extreme weather.

Which of the statements given above is/are **incorrect**?

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

### Answers

1. c

### India-EU Trade and Technology Council (TTC)

*EU-India Trade and Technology Council has recently conducted workshop on marine plastic litter monitoring.*

- The decision to establish an EU-India Trade and Technology Council (TTC) was first



announced by the European Commission President and India's Prime Minister, Narendra Modi, in April 2022.

- It was formally launched in February 2023, its first ministerial meeting was held in May 2023.
- It is a key forum to deepen the strategic partnership on trade and technology between the two partners.
- TTC is part of a joint effort to steer the EU and India closer towards strategic autonomy by reducing the EU's dependence on China and India's reliance on Russia.
- This TTC is **the second such bilateral forum for the EU**, after the one launched with the *United States (US)* in June 2021, while being the first for India.

2. a

### Equine Piroplasmiasis

ICAR-National Research Centre on Equines, Hisar of Haryana has been recently designated as a World Organisation for Animal Health (WOAH) Reference Laboratory for Equine Piroplasmiasis.

- Equine piroplasmiasis is a **tick-borne** protozoal disease of horses, mules, donkeys and zebra.
- **Causes** – It is a **blood-borne disease** caused by protozoal parasites, Theileria equi or Babesia caballi.
- **Symptoms** – Affected animals show loss of weight and fever is sometimes intermittent.
- A rare peracute form where horses are found either dead or moribund has been reported.
- The disease that can affect horses, mules, donkeys and zebra.
- It is **not a zoonotic**, hence **cannot be transmitted to humans**. (Statement 2 is incorrect)
- **Indian Council of Agricultural Research-National Research Centre on Equines (ICAR-NRC Equine)** – Is a *premier institute* established under the *aegis of Indian Council of Agricultural Research* for conducting research on equine health and production.
- It is situated at **hisar, Haryana**. (Statement 3 is incorrect)
- ICAR-NRC has been accorded *Reference Laboratory Status for Equine*

*Piroplasmiasis* by the World Organisation for Animal Health.

- **Equines** – It is one of the mammal family of Equidae (order Perissodactyla) that includes the *modern horses, zebras, and asses*, as well as more than 60 species known only from fossils.
- *India possesses 1.17 million equines* and major population of equidae comprising donkeys, mules and ponies.
- It provide livelihood to the rural societies living in arid, semi-arid and hilly regions, especially in the foot hills of Himalayas, through transport and draught.
- Remaining small population of equines is used in army, police, border security force, racing industry and sports.

3. c

### Centre for Development of Telematics (C-DOT)

C-DOT and C R Rao AIMSCS has recently signed an agreement for "Side Channel Leakage Capture Infrastructure and Analysis (SCLCIA) Solution.

- Centre for Development of Telematics (C-DOT) was established in August 1984 as a *premier and autonomous Telecom R&D centre* of Department of Telecommunications (DoT).
- It is a **registered society** under the Societies Registration Act, 1860.
- It is a registered '**public funded research institution**' with the Department of Scientific and Industrial Research (DSIR), Ministry of Science & Technology.
- The *chairman of the governing council* is the *minister of communication and information technology*.
- C-DOT and C R Rao AIMSCS sign agreement for "Side Channel Leakage Capture Infrastructure and Analysis (SCLCIA).
- The agreement is signed under the C-DOT Collaborative Research Program (CCRP) for the Indian start-ups and academic institutions for collaborative development of SCLCIA, led by C-DOT.
- SCLCIA includes development of infrastructure (software and related hardware development) for capturing side channel data leakages through real-time power usage change from an FPGA while running a cryptographic algorithm implementation on it.

- **C. R. Rao Advanced Institute of Mathematics, Statistics and Computer Science (AIMSCS)** – The institute is named after the most celebrated statistician of our times, Padma Vibushan Prof. C. R. Rao.
- The institute stands testimony to the ideology of Prof. Rao in promoting research from grass root levels and his vision to strengthen the research community in India.
- It is the **first of its kind** in the country which is solely focussed on advanced research and applications in the areas of cryptography and information security. (**Statement 2 is incorrect**)

4. c

#### Centralized Pension Payments System (CPPS)

- The CPPS is a paradigm shift from the existing pension disbursement system that is decentralized, with each Zonal/Regional Office of EPFO maintaining separate agreements with only 3-4 banks.
- It is a **decentralized system** that enables the pensioners to receive their pension from any bank, any branch, anywhere in the country.
- It aids to transform the EPFO into a more *robust, responsive and tech-enabled organization*, committed to serving the needs of its members and pensioners better.
- The *pensioners need not visit the bank for any verification* at the time of commencement of pension and the pension shall be immediately credited upon release.
- It would also ensure disbursement of pension throughout India without any need for transfer of Pension Payment Orders (PPO) from one office to another even when the Pensioner moves from one location to another or changes his bank or branch.
- The new CPPS system will be fully rolled out as part of EPFO's ongoing IT modernization project *Centralized IT Enabled System (CITES 2.01)* by January 2025.
- It will benefit more than 78 lakh EPS pensioners of EPFO.

5. d

#### Extreme Weather Events

*An assessment by Delhi-based think tank Centre for Science and Environment was recently that indicates Climate change-induced extreme weather events occurred on more number of days in 2024.*

- An extreme weather event is rare at a particular place and time of year, with unusual characteristics in terms of magnitude, location, timing, or extent.
- The characteristics of what is called extreme weather may vary from place to place in an absolute sense.
- **Key facts about extreme weather event** – Extreme heatwaves in 2003 and 2010 accounted for 80% of weather-related deaths in Europe from 1970-2019.
- Extreme temperatures of 40°C and even 50°C are becoming increasingly frequent worldwide.
- Limiting global warming to 1.5°C instead of 2°C could significantly reduce the number of people affected by extreme weather.
- Every degree of global warming is projected to cause a 7% increase in extreme daily rainfall.
- Limiting global warming to 1.5 °C instead of 2 °C could result in around 420 million fewer people being frequently exposed.
- **Examples** – Of extreme weather and climate events include, but are not limited to, heatwaves, cold waves, heavy precipitation, drought, tornadoes and tropical cyclones.
- **Salient features about the assessment** – The assessment was released by the Delhi-based think tank Centre for Science and Environment (CSE) and Down To Earth.
- The frequency of extreme weather events increase in 2024 and also became more intense, causing greater damage.
- Central India recorded the highest number of extreme weather days in 2024 (218 days).
- **Madhya Pradesh** saw the most number of days with extreme weather (176) days, among the states and Union territories.
- Kerala recorded the highest fatalities at 550, followed by Madhya Pradesh (353) and Assam (256).
- The largest affected crop area (more than 60%) was in **Maharashtra** and *most houses damaged* due to extreme weather events was in **Andhra Pradesh**.

#### 11-11-2024 & 10-11-2024

1) Consider the following statements with respect to Biotechnology Research and Innovation Council (BRIC)

1. It is an autonomous body that has subsumed 13 Autonomous Institutions (AIs) of the Department of Biotechnology (DBT).
2. It aims to provide a centralized and unified governance mechanism for the administration of its research institutions through intra-mural core grants.

Which of the statements given above is/are correct?

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

2) Consider the following statements with respect to Swaminarayan Sampraday

1. It has roots in vedas and aims to consolidate characters in society, families and individuals by mass motivation and individual attention.
2. Vadtal Temple serves as the spiritual capital of the Shree Swaminarayan Sampradaya.
3. The Swaminarayan Sampraday is devotion-focused and advocates God within the disciplines of virtues.

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 statements with respect to Haj Pilgrimage

1. Haj is one of the Five Pillars of Islam and is a sacred pilgrimage to Mecca in Saudi Arabia.
2. Setting up of Riyal exchange rate through tenders is one of the functions of the Haj Committee of India (CHC).
3. Haj Committee of India (CHC) works under the aegis of the Ministry of External Affairs.

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 IMT TRILAT, 24

1. It is a trilateral exercise that include the countries such as India, Madagascar and Tanzania.
2. It is a maritime exercise that was held at Bay of Bengal.

Which of the statements given above is/are correct?

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

5) Consider the following statements:

**Statement-I:** Glioblastoma is the most common and deadliest form of brain cancer.

**Statement-II:** Glioblastoma can be permanently cured by the approved immunotherapy treatments.

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. c

## Biotechnology Research and Innovation Council (BRIC)

- Biotechnology Research and Innovation Council (BRIC) is a newly formed society implementing cabinet approval to merge 14 DBT autonomous institutes.
- It provides centralized governance for research institutions through intra-mural core grants.
- **The Key Objectives of it include:**
- **Research Excellence:**

- Promotes cutting-edge biotechnology research aligned with national priorities.
- Supports multi-disciplinary research from basic discovery to application.
- Encourages collaboration between academia, clinics, and industry.
- **Innovation & Self-Reliance:**
  - Fosters innovation and translation across institutional boundaries.
  - Develops indigenous technologies supporting Atmanirbhar Bharat principles.
- **Infrastructure & Resources:**
  - Develops and maintains world-class facilities.
  - Provides advanced platform technologies and instrumentation.
  - Offers access and training to researchers nationwide.
- **Human Resource Development:**
  - Nurtures next-generation scientific leaders.
  - Partners with Regional Centre of Biotechnology (RCB).
  - Offers globally competitive education and research programs.
- **Ecosystem Development:**
  - Creates globally competitive research environment.
  - Ensures national relevance in research priorities.
  - Facilitates cross-institutional collaboration.
- **Historical timeline** – The Swaminarayan Sampraday began as the *Uddhav Sampraday* and was **led by Ramanand Swami**.
- In 1799, Swaminarayan, then known as Neelkanth Varni, was initiated into the Uddhav Sampraday as an ascetic (Sadhu) by his guru, Ramanand Swami, and given the name "Sahajanand Swami".
- At the age of 21, Neelkanth Varni was given the leadership of the sect known as Uddhav Sampraday with the blessings of Ramanand Swami, who handed him control of the religious diocese shortly before his death.
- 14 days after Ramanand Swami died, Neelkanth Varni, now known as Sahajanand Swami, held a large gathering of followers at the town of **Faneni in Gujarat**.
- It was during this meeting that Swaminarayan introduced what he termed "*the father of all Mantras*", and then he was known as **Swaminarayan**.
- It should be noted that there was no swami who he had appointed his successor or as an ideal devotee at that time.
- The name refers wholly and solely to one entity, Swaminarayan.
- Thereafter the name "Swaminarayan Sampraday" came into existence.
- **Features of Swaminarayan Hinduism** – It has roots in the Vedas and follows the Vaishnava tradition and to its followers represents a form of Hinduism.
- The faith focuses on salvation through total devotion (or bhakti) to the God developed through virtues (dharma), spiritual wisdom (gnana) and detachment (vairagya).
- Swaminarayan propagated a philosophy called *Vishistadvaita*, which says that *God is supreme*, has a divine form, is the all-doer and is completely independent.

2. c

### Swaminarayan Sampraday

To commemorate the 200th anniversary of Vadtal Temple, a special stamp was released to honour its pivotal role in the Shree Swaminarayan Sampradaya.

- The Swaminarayan Sampraday aims to consolidate characters in society, families and individuals by mass motivation and individual attention, through elevating projects for all, irrespective of class, creed, colour and country.
- He simply stated that souls (jiva) never merge or dissolve into God and neither are they part of God, but are always subservient to God.
- Redemption consists in the realisation of ekantik dharma, comprising righteousness, right knowledge, detachment and devotion to that God.
- It preserves Gujarati cultural and linguistic traditions and dedicated to social service.



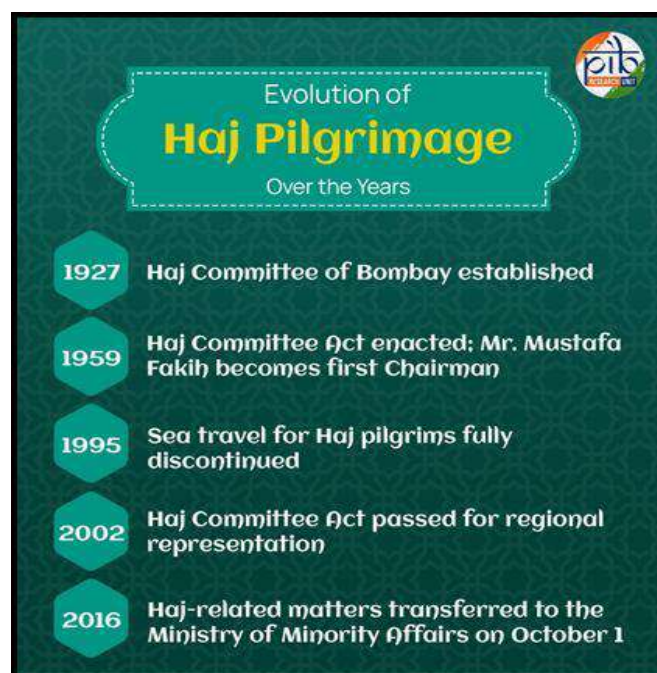
- The devotion to the personality of Swaminarayan as supreme god and a strict ethical code including uncompromising segregation of the genders.
- **Vadtal Temple** – The temple serves as the **spiritual capital of the Shree Swaminarayan Sampradaya**, which has spread across the world.
- This temple was built on the command of Bhagwan Shree Swaminarayan by Sadguru Shree Brahmanand Swami and Sadguru Shree Aksharanand Swami.
- The temple is built in a **lotus shape**, symbolizing the spirit of harmony among all religions.
- It includes depictions of past avatars of gods and goddesses.

3. b

### Haj Pilgrimage

- Haj is *one of the Five Pillars of Islam* and is a sacred pilgrimage to Mecca in Saudi Arabia to which Muslims aspire to undertake at least once in their lifetime.
- The Government of India, recognizing the significance of Haj, has made provisions to facilitate the pilgrimage, particularly for low-income individuals.
- Pilgrim support cum facilitation programs have been introduced to enhance accessibility, especially for women facing unique challenges.
- Ongoing reforms and policy improvements have promoted inclusivity and ensured that diverse segments of the Muslim community can partake in this profound spiritual journey.
- **Haj Committee of India (CHC)** – It was established by the Government under the *Haj Committee Act 2002*, for making all arrangements for the pilgrimage of Muslims for Haj and for matters related to it.
- The Committee works under the administrative superintendence of the **Ministry of Minority Affairs**. (Statement 3 is incorrect)
- **The functions of Haj Committee of India include:**
- Provides free Haj Application Forms and **guidelines to State Haj Committees**, which collect applications and remittances from intending pilgrims.

- *Distributes the Haj quota among States and Union Territories* based on Muslim population.
- Digitizes applications and transmits data to the Consulate General of India, Jeddah, for managing accommodations and flights.
- Coordinates with Saudi Arabian authorities for visa endorsement, with applications processed at the Saudi Embassy in New Delhi and Consulate in Mumbai.
- **Provides Foreign Exchange Rate Fixing by setting the Riyal exchange rate through tenders and finalizes it for the Haj season.**
- **Initiatives for Hassle-Free Haj Travel** – During Haj 2023, the Government of India allowed **single eligible women** to apply individually under the LWM (Lady without Mehram) category, eliminating the previous requirement to form a group of four.
- *Modernization of Haj-related service* by enabling citizens to access them anytime and anywhere.
- This modernization includes improvements to the application process and the computerization of the draw for selecting Haj pilgrims.
- Since Haj 2023, the Government of India has removed all discretionary quotas previously held by dignitaries, including those from the Ministry of Minority Affairs.
- **Bilateral Haj Agreement** – In 2024, a Bilateral Haj Agreement was signed between **India and Saudi Arabia**.





- Standard treatments include surgery, radiation and chemotherapy which are often only temporarily effective.
- **Challenges** – The tumours are highly resistant to these treatments due to the cancer's ability to suppress immune responses and the presence of the blood-brain barrier, which restricts most drugs from reaching the brain.
- After surgery, the tumour often returns and can spread to other parts of the brain.
- **Immunotherapy** – Immunotherapy has shown promise in treating other cancers.
- It involves stimulating the immune system to attack cancer cells.

**12-11-2024**

1) Consider the following statements with respect to Antariksha Abhyas, 2024

1. It is a first of its kind exercise being conducted and is expected to help secure national strategic objectives in space.
2. It is conducted by the Defence Space Agency of Headquarters Integrated Defence Staff.

Which of the statements given above is/are correct?

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

2) Consider the following statements with respect to 4B Movement

1. It is a political protest that originated in the USA against Patriarchy.
2. The 4B includes the refusal of (heterosexual) marriage, childbirth, romance and sexual relationships.

Which of the statements given above is/are correct?

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

3) Consider the following statements with respect to Maulana Azad

4. d

#### IMT TRILAT 24

- IMT TRILAT, 24 is Trilateral Exercise that include the countries such as **India, Mozambique and Tanzania**.
- It is a series of joint exercises, training sessions and collaborative activities, providing invaluable opportunities for all three Navies to exchange knowledge and enhance capabilities.
- **It was held at Nacala, Mozambique.**
- INS Tir and Sujata participated in the exercise.

5. c

#### Glioblastoma

- Glioblastoma is the **most common and deadliest form of brain cancer**.
- The average survival after diagnosis is between 12 and 15 months.
- **Symptoms** – Headaches, seizures, cognitive and personality changes, and neurological impairments.
- These symptoms may drastically affect their quality of life.
- Patients have a **low survival rate**, and standard treatments are often ineffective.
- **Treatment** – There's **no cure** for glioblastoma but treatments might slow cancer growth and reduce symptoms.

1. He was a member of the constituent assembly that drafted the Constitution of independent India.
2. Indian Council for Cultural Relations was founded by him.
3. India Wins Freedom, is an autobiography of him and he was awarded the Bharat Ratna in 1992.

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 Securities Transaction Tax (STT)

1. It is an indirect tax that was implemented in 2004 to combat tax evasion on capital gains.
2. It is charged on the value of securities such as commodities and cash.

Which of the statements given above is/are correct?

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

5) Consider the following statements with respect to Gluten

1. Gluten and gluten-related proteins are present in wheat and barley.
2. At the microscopic level, gluten is an elastic mesh of the protein molecules.
3. Celiac disease (CD), a chronic and multiple-organ autoimmune disease is precipitated by the ingestion of gluten-containing foods.

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

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

## Answers

1. c

### Antariksha Abhyas

- 'Antariksha Abhyas, 2024 is a three day Exercise to war-game the growing threats from and to Space Based Assets and Services.
- It is **conducted by the Defence Space Agency of Headquarters Integrated Defence Staff**.
- It is a first of its kind exercise being conducted and is expected to help secure national strategic objectives in space and integrate India's space capability in military operations.
- The Space Exercise aims to provide enhanced understanding of space based assets and services and to gain understanding of operational dependency on space segment between stakeholders.
- **Representatives** from *Indian Space Research Organisation* and the *Defence Research & Development Organisation* will also take part in it.

2. b

### 4B Movement

*As Donald Trump returns to the White House, social media in the US is seeing the rise of the '4B' movement, to protest against patriarchal and often misogynist institutions and practices.*

- The 4B movement **originated in South Korea** a few years ago, around 2016, that advocates to avoid sex with men as a political protest.
- In this movement, women swear off sex and marriage with men to protest patriarchal and often misogynist institutions and practices.
- 4B stands for four bis, or no in the Korean language that includes bihon, bichulsan, biyeonae, and bisekseu.
- It translated to meaning the refusal of (heterosexual) *marriage, childbirth, romance, and sexual relationships*, respectively.
- The 4B movement belongs to the strain of radical feminism that believes that heterosexual relationships at their heart remain structures of oppression, and women need to break free of them to be truly independent and happy.
- The proponents of the 4B movement believe that unless men work more actively for a gender-just society, women should not reward



them with children, love, and emotional and other forms of labour.

- **4B is largely an online movement** and it is difficult to measure its impact.

According to the *New York Times*, South Korea now has the lowest fertility rate in the world and in 2020, it recorded more deaths than births.

- South Korea does have very low birth rates, but that can be attributed to a range of factors.

3. c

### Maulana Abul Kalam Azad

India celebrates National Education Day on November 11, 2024 to commemorate the birth anniversary of Maulana Abul Kalam Azad.

- Maulana Abul Kalam Azad was born as Abul Kalam Ghulam Muhiyuddin on November 11th 1888 in Mecca, Saudi Arabia.
- Azad was inspired by the modernist writings of Indian philosopher and educationist Sir Syed Ahmed Khan.
- As a teenager, Azad published **Al-Hilal**, a Calcutta-based Urdu newspaper that was subsequently banned by the British.
- Azad had a brief participation in the *Khilafat Movement*, during which he held the post of *president of the All-India Khilafat Committee*.
- He actively participated in the *Dandi March* and the *Quit India Movement*.

Maulana Azad was a journalist, freedom fighter and senior Congress leader.

- He was involved in the negotiations for independence with the British, and he vehemently opposed partition.
- He became the *president of the Indian National Congress* on two occasions, in 1923 and 1940.
- After independence, Azad was appointed as the *Education Minister* and he held the post for a decade until 1958 in the cabinet of Pandit Jawaharlal Nehru.
- During his tenure as the education minister of India, he founded the following statutory bodies:
  - All India Council for Technical Education (AICTE),
  - The University Grants Commission (UGC) and

- The Indian Institute of Technology (IIT) Kharagpur, the first IIT in the country.

- He also played a key role in the establishment of *Jamia Millia Islamia (JMI)*.
- Maulana Abul Kalam Azad is credited with setting up the following:
  - **Indian Council for Cultural Relations (ICCR)**,
  - Sahitya Academy and Lalit Kala Academy,
  - Sangeet Natak Academy, and Council of Scientific and Industrial Research (CSIR).
- Maulana Azad was **posthumously awarded Bharat Ratna**, the highest civilian award in the country, in **1992**.

4. d

### Securities Transaction Tax (STT)

Securities Transaction Tax (STT) collection was recently hit rupees 36,000 crore, reaching 97% of Budget target.

- Securities Transaction Tax (STT) was implemented in 2004 by then Finance Minister P. Chidambaram during the first term of the Manmohan Singh Government (2004-09).
- STT is a **direct tax** that was designed to combat tax evasion on capital gains and has undergone various adjustments to its rates and structure since its inception. (**Statement 1 is incorrect**)
- It is governed by the *Securities Transaction Tax Act, 2004*.
- It is charged on the value of securities that include equity, derivatives and units of equity-oriented mutual funds.
- **It is not charged on the commodities and cash. (Statement 2 is incorrect)**
- STT also applies to *unlisted shares* sold under an offer for sale to the public that is subsequently listed on stock exchanges.

5. d

### Gluten

- Gluten can be defined as the rubbery protein mass that remains when wheat dough is washed to remove starch.



- Gluten and gluten-related proteins are present in wheat, rye and barley and are used widely in food processing to give dough the desired baking properties, add flavours and improve texture.
- Two important types of these proteins are **gliadins and glutenins**.
- The ability of gliadins and glutenins to create gluten makes them prized ingredients in the food industry.
- At the microscopic level, gluten is an elastic mesh of the protein molecules.
- Gluten is equally infamous for the allergic reaction it induces in some people.
- Gluten exposure in genetically predisposed individuals may lead celiac disease.
- **Celiac disease (CD)** – Is a *chronic, multiple-organ autoimmune disease that affects the small intestine* in genetically predisposed children and adults.
- It is *precipitated by the ingestion of gluten-containing foods*.
- It is also referred to as celiac sprue, gluten-sensitive enteropathy, or non-tropical sprue.
- It's characterised by a severe allergic reaction in the small intestine, prompting the immune system to produce a large number of antibodies that attack the body's own proteins.
- The disease is present in around 2% of the general population.
- Its *primary symptom are severe loose diarrhoea and anaemia*, but there are other symptoms too.
- It can be diagnosed using a blood test, an endoscopy, and/or a test looking for genetic predisposition to the condition.
- The diagnosis is often delayed the symptoms are often misattributed to a different cause.

**13-11-2024**

1) Consider the following statements with respect to Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA)

1. It is a pre-independence organisation that aims to provide research and policy relevant studies on all aspects of defence, security and international relations.
2. It functions autonomously, being funded by the Indian Ministry of Defence.

3. The Delhi Defence Dialogue (DDD) is a flagship platform of the MP-IDSA, to address the multifaceted challenges of defence and security in 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) ASSET Platform, sometimes seen in the news recently, is an initiative of?

- a. NITI Aayog
- b. Securities and Exchange Board of India
- c. Reserve Bank of India
- d. Telecom Regulatory Authority of India

3) Consider the following statements with respect to Long Range Land Attack Cruise Missile (LRLACM)

1. It is a Defence Acquisition Council-approved, Acceptance of Necessity-sanctioned, Mission Mode Project.
2. Bharat Dynamics Limited and Bharat Electronics Limited are the two Development-Cum-Production-Partners for it.

Which of the statements given above is/are correct?

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

4) Ctenophore Mnemiopsis leidyi, sometimes seen in the news is associated with?

- a. A women movement against the custom of compulsory hijab in Iran.
- b. A species of marine invertebrate that was discovered recently.
- c. A multidrug-resistant fungus causing life-threatening outbreaks.
- d. An exotic seaweed species native to Indo-Pacific Ocean.

5) Consider the following statements with respect to National Financial Reporting Authority (NFRA)

1. It aims to protect the public interest and the interests of the investors, creditors and other associated with the companies or bodies corporate.
2. It is a statutory body that works under the aegis of Ministry of Corporate Affairs.
3. It has the authority to monitor the companies whose securities are listed on any stock exchange only in India.

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. b

### Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA)

*The Delhi Defence Dialogue (DDD) was recently held at New Delhi that addresses the multifaceted challenges of defence and security in India.*

- The Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA), is a *non-partisan, autonomous body* dedicated to objective research and policy relevant studies on all aspects of defence, security and international relations.
- Its mission is to promote national and international security through the generation and dissemination of knowledge on defence and security-related issues.
- MP-IDSA is *not a pre-independence organisation* and was established as a *registered society* in New Delhi on November 11, **1965. (Statement 1 is incorrect)**
- **Core values and agenda** – The **core values** that serve as guiding principles of the institute are:
  - Integrity and Honesty,
  - Commitment and Professionalism,
  - Pursuit of excellence and Teamwork and

- Innovation and Creativity.

- Research at the Institute is *driven by a comprehensive agenda* and by the need to provide impartial analyses and policy recommendations.
- **Training** – MP-IDSA *provides annual training programmes to civilian and military officers* of the Government of India.
- Lectures by experts from the institute and from outside form the core of these programmes.
- **Governance** – MP-IDSA is *governed by an Executive Council*, whose members are distinguished personalities from various walks of life.
- The **Council is headed by a President**.
- It is supported by committees covering different aspects of the Institute's work.
- Executive Council Committees include:
  - Human Resources and Academic Committee,
  - Membership Committee and
  - Finance and Administration Committee.
- Members of the Council are elected for two-year terms at the Annual General Body meeting.
- **Funding** – MP-IDSA is **funded by the Indian Ministry of Defence**.

2. a

### ASSET Platform

*NITI Aayog has recently launched ASSET platform in collaboration with the Ministry of Power and the Ministry of New and Renewable Energy.*

- **ASSET platform** – Accelerating Sustainable Solutions for Energy Transition.
- It was **launched by NITI Aayog** in collaboration with the ministry of power and the ministry of new and renewable energy.
- ASSET platform is a timely initiative to support states in accelerating their green transition.
- The platform will assist in formulating state energy transition blueprints along with aiding in its implementation, preparing a pipeline of bankable projects.

- It showcases best practices across states as well as upcoming technology and innovations in critical sectors like BESS, Green Hydrogen, Energy efficiency, e-mobility, offshore wind and so on.
- The role of states is crucial in achieving India's national aspirations of becoming Viksit Bharat by 2047 and achieving Net-zero GHG emissions by 2070.
- This requires sustained economic growth over the next two decades and States need to develop and implement energy transition plans that align with overall national goals.
- This involves three key steps that include:
  - Preparing comprehensive energy transition blueprints,
  - Developing investible projects and ensuring their effective implementation and
  - Fostering innovation in emerging technologies.

3. c

### Long Range Land Attack Cruise Missile (LRLACM)

India's Defence Research and Development Organisation (DRDO) successfully conducted the first flight-test of the Long Range Land Attack Cruise Missile (LRLACM) recently.

- LRLACM is a Defence Acquisition Council-approved, Acceptance of Necessity-sanctioned and Mission Mode Project.
- It is configured to *launch from the ground using mobile articulated launchers* and also *from frontline ships* using a universal vertical launch module system.
- LRLACM has been **developed by** the Aeronautical Development Establishment (ADE), Bengaluru along with contributions from other DRDO laboratories and Indian industries.
- *Bharat Dynamics Limited (BDL), Hyderabad and Bharat Electronics Limited (BEL), Bengaluru* are the *two Development-Cum-Production-Partners for LRLACM*.
- They are also engaged in missile development and integration.
- The missile performance was monitored by several range sensors like Radar, Electro Optical Tracking System and telemetry.

- The test was held at the Integrated Test Range (ITR) in **Chandipur, Odisha**.

4. b

### Comb Jellies

Scientists have recently discovered Comb Jellies that breaks the traditional cycle of birth, ageing, and death to which most animals are bound.

- Comb jellies are also known as *ctenophore Mnemiopsis leidyi*.
- According to a recent study published in Proceedings of the National Academy of Sciences, Comb jellies can *defy age and revert to younger versions of themselves*.
- They found that *adult comb jelly can regress* and reach a larval stage if they are subjected to extreme stress.
- They are one of Earth's earliest animal lineages (around 700 million years old) makes this discovery valuable for understanding the evolution of aging and development.
- **Stress response** – The finding that this reverse aging occurs under extreme stress suggests it may be a survival mechanism, which is a novel concept in animal biology.
- **Developmental plasticity** – This challenges our traditional understanding of animal development as a one-way process, showing that some organisms can be more flexible in their life cycles than previously thought.
- **Research implications** – Understanding the molecular mechanisms behind this process could potentially provide insights into:
  - Cellular regeneration.
  - Aging processes.
  - Development of therapeutic approaches.
  - Evolution of early animal body plans.

5. b

### National Financial Reporting Authority (NFRA)

NFRA has recently approved the revamped proposals on 40 auditing standards.

- The National Financial Reporting Authority (NFRA) was constituted on October, 2018 under the *Companies Act, 2013*.
- It aims to protect the public interest and the interests of the investors, creditors and other

associated with the companies or bodies corporate governed under NFRA Rules, 2018.

- It is a statutory body that works under the aegis of **Ministry of Corporate Affairs**.
- **Functions and Duties** – To recommend accounting and auditing policies and standards to be adopted by companies for approval by the Central Government.
- To monitor and enforce compliance with accounting standards and auditing standards.
- To oversee the quality of service of the professions associated with ensuring compliance with such standards and suggest measures for improvement in the quality of service.
- The Authority has the power to monitor and enforce compliance with accounting standards and auditing standards, oversee the quality of service of bodies corporate, that include:
  - **Companies whose securities are listed on any stock exchange in India or outside India. (Statement 3 is incorrect)**
  - Unlisted public companies having paid-up capital of not less than rupees five hundred crores.
  - Insurance companies, banking companies, companies engaged in the generation or supply of electricity.
- NFRA has recently revised 40 auditing standards to align with International Standards on Auditing (ISA).
- The revamped include two key standards where the CA Institute had expressed reservations.
- These two key standards are SA 600 (relying on the work of other auditor) and SA 299 (Joint Audit of Financial Statements).
- The major standards approved by the NFRA Board include SQM1, SQM2, SA 600 (revised), SA 299 (revised), SA 800 (revised), SA 805 (revised) and SA 810 (revised).

**14-11-2024**

1) Global Nitrous Oxide Assessment, sometimes seen in the news recently, is a joint effort by which of the following?

1. Climate and Clean Air Coalition (CCAC)
2. International Nitrogen Management System (INMS)
3. Food and Agricultural Organization (FAO)

4. Intergovernmental Panel on Climate Change (IPCC)
5. World Meteorological Organization (WMO)

Select the correct answer using the code given below:

- a. Only two
- b. Only three
- c. Only four
- d. All of the above

2) Consider the following statements with respect to South and South-West Asia Forum on Sustainable Development

1. The Forum facilitates dialogue between government officials, civil society, think-tanks, private sector, experts and development partners.
2. The eight edition of the forum was co-hosted by the NITI Aayog and the Economic and Social Commission for Asia and the Pacific (ESCAP).

Which of the statements given above is/are correct?

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

3) Consider the following Statements with respect to South Asian Telecommunication Regulators Council (SATRC)

1. It promotes regional cooperation and harmonized regulatory practices across South Asia's telecommunications sector.
2. It was established in 1997 and works under the aegis of the Asia-Pacific Tele-community (APT).
3. Afghanistan, Pakistan and India are members of this organization.

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 South Elephant Seals

1. They are migratory species with trunk-like inflatable snouts.
2. They are accorded 'Least Concern' status under the International Union for Conservation of Nature's Red list.
3. They are the largest seals on the planet and the largest mammals on Earth apart from whales.

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 Supercapacitor

1. They are high-capacity capacitors that can store more energy than conventional capacitors while operating at lower voltage limits.
2. The first Super-capacitor production facility in India was launched by Keltron Component Complex Limited (KCCL).

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

### Global Nitrous Oxide Assessment

The Global Nitrous Oxide Assessment was recently released by the United Nations Environment Programme states that warning N<sub>2</sub>O, is rapidly accelerating climate change and damaging the ozone layer.

- The Global Nitrous Oxide Assessment is a comprehensive United Nations report that evaluates the impact of nitrous oxide (N<sub>2</sub>O) emissions on climate change and ozone depletion.

- It was launched at the 2024 UN Climate Change Conference (COP29) in Baku, Azerbaijan.
- It is the first international report focused solely on nitrous oxide in more than a decade.
- It is a joint effort by:
  1. **Climate and Clean Air Coalition (CCAC), UNEP**
  2. **International Nitrogen Management System (INMS)**
  3. **Food and Agricultural Organization (FAO)**
- **Climate and Clean Air Coalition (CCAC)** – It is a United Nations Environment Programme (UNEP) convened initiative.
- The CCAC is an initiative of more than 160 partner countries and organisations to reduce short-lived climate pollutants (SLCPs), such as methane and hydrofluorocarbons.
- **Nitrous oxide (N<sub>2</sub>O)** – Is one of several oxides of nitrogen, a colourless gas with pleasant, sweetish odour and taste.
- When inhaled, it produces insensibility to pain preceded by mild hysteria, sometimes laughter.
- **Key findings of the assessment** – Nitrous oxide (N<sub>2</sub>O) is approximately 270 times more potent than carbon dioxide in terms of warming the planet, and currently responsible for approximately 10% of net global warming since the industrial revolution.
- It sheds new light on a super pollutant and is intended as a resource for policymakers, civil society, the private sector, the scientific community and others.
- N<sub>2</sub>O is the **third most significant greenhouse gas** and the top ozone-depleting substance still being released into the atmosphere.
- Without a serious reduction in emissions, there is no viable path to limiting warming to 1.5°C in the context of sustainable development as outlined in the Paris Agreement.
- Abating N<sub>2</sub>O emissions could avoid up to 235 billion tonnes of CO<sub>2</sub>-equivalent emissions by 2100.
- It identifies practical, cross-sectoral abatement strategies that could cut N<sub>2</sub>O emissions by more than 40% from current levels.

- It shows that N<sub>2</sub>O emissions from the chemical industry can be quickly and cost-effectively abated.

2. c

### South and South-West Asia Forum on Sustainable Development

*The Eighth South and South-West Asia Forum on Sustainable Development is all set to be held at New Delhi, India.*

- South and South-West Asia Forum on Sustainable Development facilitates dialogue between government officials, civil society, think-tanks, private sector, experts and development partners.
- It has designated themes and Sustainable Development Goals (SDGs) of the annual APFSD and High-Level Political Forum (HLPF).
- The Sub-regional Forum is *organized annually* as the sub-regional preparatory meetings for the Asia Pacific Forum on Sustainable Development (APFSD) at the regional level and the ECOSOC, HLPF at the global level.
- The Eighth South and South-West Asia Forum on Sustainable Development will take place in New Delhi, *co-hosted by the NITI Aayog of the Government of India and ESCAP*, in collaboration with:
  - The UN Resident Coordinator and
  - The Research and Information System for Developing Countries, India.
- It offers a unique opportunity among multiple stakeholders to exchange information and reflections on SDG implementation efforts in countries.
- **The Economic and Social Commission for Asia and the Pacific (ESCAP)** – Is the most inclusive intergovernmental platform in the Asia-Pacific region.
  - The Commission promotes cooperation among its 53 member States and 9 associate members in pursuit of solutions to sustainable development challenges.
  - ESCAP is one of the five regional commissions of the United Nations.

3. d

### South Asian Telecommunication Regulators' Council (SATRC-25)

*TRAI recently hosted 25th Meeting of South Asian Telecommunication Regulators' Council (SATRC-25).*

- South Asian Telecommunication Regulators' Council (SATRC-25) promotes regional cooperation and harmonized regulatory practices across South Asia's telecommunications sector.
- **It functions under the aegis of the Asia-Pacific Telecommunity (APT).**
- It was **formed in 1997** by an initiative of APT and ITU Regional Office for Asia and the Pacific.
- The Council is composed of **the Heads of the regulatory bodies of 9 South Asian countries**, that include:
  1. Afghanistan
  2. Bangladesh
  3. Bhutan
  4. India
  5. Iran
  6. Maldives
  7. Nepal
  8. Pakistan
  9. Sri Lanka
- It **meets annually** to discuss the key policy and regulatory issues of concern to the members.
- It is responsible for discussion and coordination of all the issues relating to regulations in telecommunication and ICT.
- The 25th Meeting was **held at New Delhi** by regulators, industry leaders and experts from across South Asia.
- It was hosted by TRAI in **collaboration with the Asia-Pacific Telecommunity (APT).**
- It **featured a comprehensive agenda** designed to address key issues in the telecommunications and ICT sectors.
- It addressed several key topics, which included **Regulators Roundtable discussion and Regulatory-Industry Dialogue.**
- **Theme** – Accelerating Telecommunication and ICT Development for Growth and Inclusiveness.

### Telecom Regulatory Authority of India (TRAI)

- It was established with effect from 20th February 1997 by an **Act of Parliament**, called the Telecom Regulatory Authority of India Act, 1997.
- It regulate telecom services, including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government.
- To know more about it [click here](#).

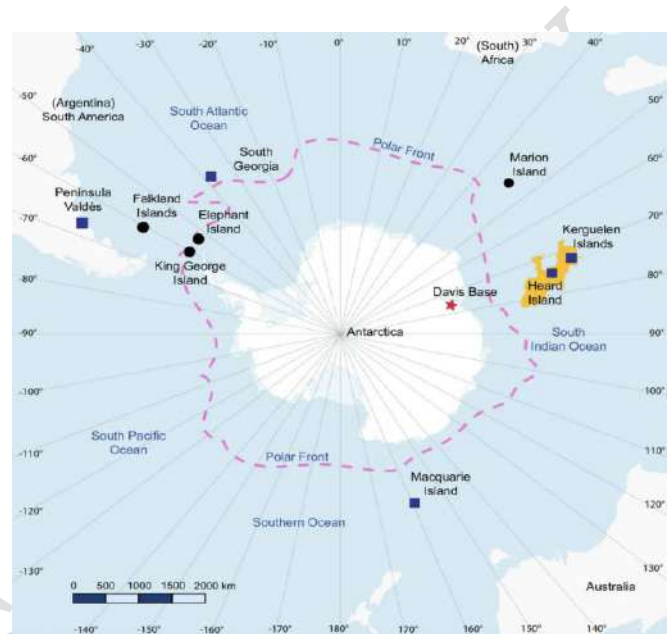
4. c

### South Elephant Seals (Mirounga)

- Elephant seal are either of the two largest pinnipeds (aquatic mammals of the suborder Pinnipedia) that include Northern Elephant Seals and Southern Elephant Seals.
- Elephant seals **migrate** in search of food, spending months at sea and often diving deep to forage.
- Elephant seals were aggressively *hunted for their oil* and their numbers were once reduced to the brink of extinction.
- There are 2 species of elephant seals, which are:
  1. Northern Elephant Seals
  2. Southern Elephant Seals
- **Northern elephant seals (Mirounga angustirostris)** – It can be found in California and Baja California, though they prefer to frequent offshore islands rather than the North American mainland.
- **Southern elephant seals (Mirounga leonina)** – It feature brutally cold conditions but are rich in the fish, squid and other marine foods these seals enjoy.
- The largest concentration of southern elephant seals is found on the sub-Antarctic island of South Georgia, where over half of the world's population congregates.
- Southern elephant seals breed on land but spend their winters in the frigid Antarctic waters near the Antarctic pack ice.
- *Male southern elephant seals are significantly larger than females.*
- **Southern elephants are the largest of all seals.**
- Males can be over 20 feet long and weigh up to 8,800 pounds and these massive pinnipeds

aren't called elephant seals because of their size. They take their name from their *trunk-like inflatable snouts*.

- **Protection** – They are accorded '**Least Concern**' status under the International Union for Conservation of Nature Red list.
- **Distribution:**



5. c

### Supercapacitor

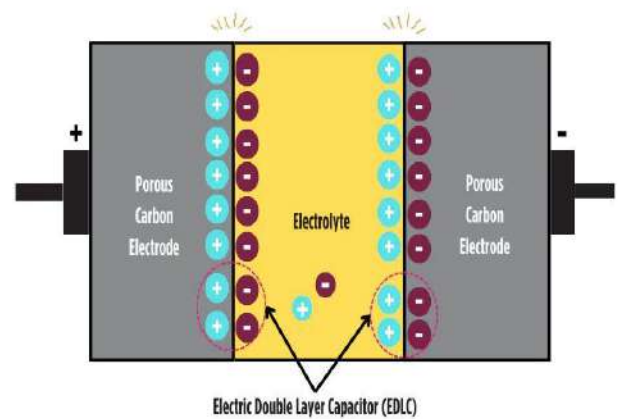
Recently the Keltron Component Complex Limited (KCCL) launched the India's first Supercapacitor production facility in

- **Supercapacitors** is a type of an electrochemical energy storage systems which have great power density and specific capacitance.
- It is also known as **ultra-capacitors or electrical double-layer capacitors**.
- They can store energy electrostatically, allowing for rapid charge and discharge cycles.
- It is a **high-capacity capacitors that can store significantly more energy than conventional capacitors** while operating at lower voltage limits.
- Its capacitance is up to 100 times higher than that of electrolytic capacitors.
- It can accept and deliver charge much faster than batteries and can withstand more charge/discharge cycles.

- The 3 main components of Supercapacitor are electrodes, electrolyte and insulator.
- **Unique Properties** – It has activated carbon, including its low cost, high surface area, and versatile structure, make it suitable for high-power applications without complex design requirements.
- They are especially valuable in applications that require short-duration power boosts.
- By connecting multiple supercapacitors in series or parallel manufacturers can create supercapacitor power banks to meet energy demands.
- The ability to store and deliver energy quickly makes them a valuable component in a growing number of industrial applications.
- **Applications** – They are used in various industries, including **automotive, renewable energy, electric vehicles, energy meters, inverters, and more.**
- Its versatility makes them indispensable in industries ranging from transportation and **consumer electronics to renewable energy, defense, and space launch vehicles.**
- **Keltron's Supercapacitors** – It is designed using activated carbon electrodes with an organic electrolyte, making them ideal for a wide range of applications.
- The Advantages of Supercapacitors over Batteries include:
  - Much faster charging and discharging.
  - Longer lifespan (up to 15 years vs 5-10 for batteries).
  - Better temperature tolerance (up to 40°C).
  - More environmentally friendly (no toxic materials).
  - Lower maintenance requirements.

#### Keltron Component Complex Limited (KCCL)

- KCCL was established on **October 1974**, a government undertaking **under the Government of Kerala.**
- It is the **biggest manufacturer of Aluminium Electrolytic Capacitors in India.**



15-11-2024

1) Consider the following statements with respect to the International Centre of Insect Physiology and Ecology

1. It aims to address the paradox of insects and accompanying challenges.
2. It was established in 1970 and is headquartered at Philippines.
3. It is the only international institution in Africa working primarily on arthropods.

Select the correct answer using the code given below:

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

2) Consider the following statements:

1. Bio-foundry is an integrated infrastructure that enables rapid design, construction and testing of genetically reprogrammed organisms.
2. Global Bio-foundry Alliance (GBA) is a community collective of publicly funded Bio-foundries across the world.
3. Indian Institute of Technology, Madras is a member of Global Bio-foundry Alliance (GBA).

How many of the statements given above are correct?

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



3) Partnerships for Accelerated Innovation and Research (PAIR) Programme, sometimes seen in the news recently, is an initiative by?

- Council of Scientific & Industrial Research (CSIR)
- Anusandhan National Research Foundation (ANRF)
- Biotechnology Research and Innovation Council (BRIC)
- Niti Aayog

4) Consider the following statements:

**Statement-I:** India's 'Know Your Medicine (KYM)' app is an innovative tool to empower athletes with critical information, helping them avoid inadvertent doping and maintain fair play.

**Statement-II:** National Anti-Doping Agency of India is an autonomous body under the Ministry of Youth Affairs & Sports.

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

5) Consider the following statements with respect to Operation Dronagiri

- It aims to demonstrate the formidable capabilities and operational strength of Indian Navy.
- It was held at pristine Blue Flag Beach in Odisha.

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

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

## Answers

1. b

### International Centre of Insect Physiology and Ecology

*Scientists from the International Centre of Insect Physiology and Ecology have recently found that the larvae of the Kenyan lesser mealworm can consume polystyrene.*

- International Centre of Insect Physiology and Ecology aims to address this very paradox of insects and accompanying challenges.
- It was established in 1970 and **Headquartered in Nairobi, Kenya. (Statement 2 is incorrect)**
- The Mission of it is to use insect science for sustainable development, to ensure food security and improve the overall health of communities in Africa.
- It is the only international institution in Africa working primarily on arthropods. (Statement 3 is correct)*
- Therefore capacity building of individual researchers and institutions in Africa is an integral part of all the Centre's research and development activities.
- It also aims to empower women, harness the youth and build capacity to use, transfer and teach the Centre's technologies.
- Kenyan Mealworm larvae** – Are capable of consuming polystyrene.
- Polystyrene, commonly known as styrofoam, is a plastic material that's widely used in food, electronic and industrial packaging.

2. b

### Bio-foundry

*Recently, the Department of Biotechnology Launches Webinar Series on Bio-manufacturing and Bio-foundry Initiative.*

- Bio-foundry is an integrated infrastructure that enables rapid design, construction, and testing of genetically reprogrammed organisms.
- The core components of the Bio-foundry include:
  - Automated systems for DNA synthesis and assembly
  - High-throughput robotics for liquid handling.

- Advanced testing and measurement equipment.
- Data analysis and learning capabilities.

• **The Applications of Biofoundry are:**

- **Sustainable Manufacturing**
  - Converting waste to valuable products
  - Producing biofuels and bio-chemicals
- **Healthcare Solutions:**
  - Vaccine development
  - Cancer therapies
  - Engineered probiotics
- **Environmental Applications:**
  - Biosensors for contamination detection
  - Carbon capture solutions
- **Novel Materials:**
  - Bioplastics
  - Engineered proteins
  - Hhhh
  - Synthetic materials (like spider silk)

**Alliance (GBA). (Statement 3 is incorrect)**

- The GBA has agreed to a non-binding Memorandum of Understanding, which does not establish any legal rights or obligations, but is a voluntary arrangement dependent upon goodwill and cooperation.
- **Primary Objectives:**
  - Develop and support non-commercial bio-foundries.
  - Foster collaboration and communication.
  - Address common challenges.
  - Enhance visibility and impact.
  - Work on global grand challenges.
- **Operating Model:**
  - Non-binding Memorandum of Understanding
  - Voluntary cooperation
  - Non-overlapping missions with for-profit entities

3. b

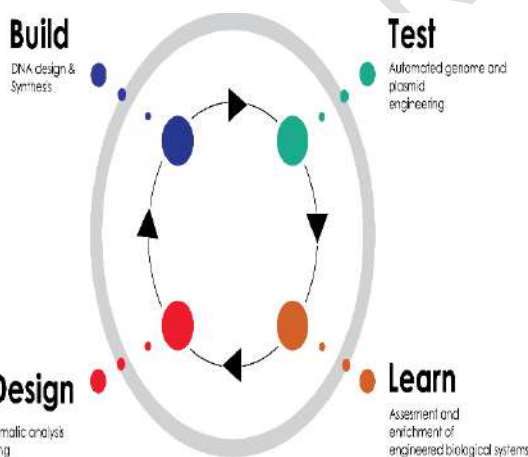
**Partnerships for Accelerated Innovation and Research (PAIR) Programme**

*The PAIR Program was recently launched by the ANRF to bring major transformation in Indian Universities.*

- Partnerships for Accelerated Innovation and Research (PAIR) Programme will *cultivate research excellence in central and state public universities* by fostering collaborations with top-tier institutions via a mentorship-driven *hub and spoke model*.
- The programme aims to *stimulate innovation in emerging institutions* by leveraging mentorship from high-ranking institutions.

*The hub and spoke model is a structure that centralizes a lead organization or hub with partner organizations or spokes that are directly linked to it.*

- It is an initiative of [Anusandhan National Research Foundation \(ANRF\)](#).
- PAIR Programme is aligned with the objectives set by the National Education Policy (NEP) 2020.
- The hubs will guide emerging institutions (spokes) in research activities.



- **Global Bio-foundry Alliance (GBA)** – It was formally launched on May 9, 2019 in Kobe, Japan.
- **Members** – 15 non-commercial bio-foundries across world.
- **Indian Institute of Technology, Madras is not a member of Global Bio-foundry**

- The hub will also provide access to harness their resources and expertise, thus bridging the gap between institutions and nurturing a robust research ecosystem in India.
- The *hub and spoke model* which pairs *universities* where research is at a nascent stage, with top-tier established institutions.
- The programme stands as a *catalyst for transformative research* in universities which have potential, with well-established institutions providing the necessary mentorship to elevate overall research standards.
- While Hub institutions will include the top 25 NIRF overall ranking as well as Institutions of National Importance within the top 50 NIRF overall ranking
- Central and State Public Universities and select NITs and IIITs will be added as the spoke institutions.
- Each *PAIR network* would consist of one hub and up to 7 spoke institutions.
- *Only one proposal per hub institution is allowed*, with a mandatory involvement of multi-departmental faculty teams from spoke institutions.

4. b

#### India's 'Know Your Medicine (KYM)' App

- India's 'Know Your Medicine (KYM)' app is an innovative tool that aims to empower athletes with critical information, helping them avoid inadvertent doping and maintain fair play.
- KYM app helps **to eliminate inadvertent doping** and contribute to a fair and transparent sporting culture.
- The KYM app is part of National Anti-Doping Agency of India's broader mission to *raise anti-doping awareness and education*, equipping athletes with essential information to stay clean.
- The app allows users to easily verify whether a specific medicine or its ingredients contain any substances listed as *prohibited by the World Anti-Doping Agency (WADA)*.
- By offering this quick and seamless verification, the KYM app helps *athletes to stay informed* and uphold integrity of sport, fostering a culture of fair and ethical sportsmanship.
- Its unique features of image and audio search, enables user to select their sport category and

search specific sport related information making it convenient for the user to effortlessly access the desired information.

- **National Anti-Doping Agency (NADA), India** – Is an **autonomous body** under the **Ministry of Youth Affairs & Sports**.
- It implements the *anti-doping programme in India*, in line with the World Anti-doping Code 2021.
- It works in close collaboration with the sport ecosystem to create a *dope-free sporting environment* in the country.
- NADA India collaborates other national anti-doping organizations to strengthen clean sporting practices, contribute to evolving the guidelines and ensure athletes can compete on a level playing field across the world.
- **World Anti-Doping Agency (WADA)** – It was established in 1999 as an international independent agency to lead a collaborative worldwide movement for doping-free sport.
- WADA's governance and funding are based on equal partnership between the Sport Movement and Governments of the world.
- WADA's primary role is to develop, harmonize and coordinate anti-doping rules and policies across all sports and countries.
- The *World Anti-Doping Code (Code)* is the core document that *harmonizes anti-doping policies*, rules and regulations within sport organizations and among public authorities around the world.

5. d

#### Operation Dronagiri

*The Operation Dronagiri was recently launched by Department of Science and Technology to demonstrate the potential applications of geospatial technologies and innovations.*

- The Operation Dronagiri will *demonstrate the potential applications of geospatial technologies and innovations* in improving the quality of life of citizens and ease of doing business.
- It was **launched by Department of Science and Technology**.
- It is a pilot project under National Geospatial Policy 2022.
- In the first phase, Operation Dronagiri will be implemented in the states of Uttar Pradesh,

Haryana, Assam, Andhra Pradesh, and Maharashtra.

- The pilot projects will be run and use cases will be demonstrated in 3 sectors such as agriculture, livelihoods, logistics and transport.
- IIT Tirupati Navavishkar I-Hub Foundation (IITTNiF) will oversight the operation.

### 16-11-2024

1) Mount Lewotobi Laki-Laki volcano, often seen in news is located in?

- Indonesia
- Philippines
- New Zealand
- Papa New Guinea

2) Consider the following statements with respect to Avian botulism

1. It is a paralytic disease caused by the ingestion of a toxin produced by the bacterium Clostridium botulinum.
2. The toxin is produced when bacterial spores germinate in the right environmental conditions, such as high water temperatures and low oxygen levels.
3. The avian botulism is confined to wild and captive bird populations, and it doesn't affect humans.

Select the **correct** answer using the codes given below:

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

3) Consider the following statements with respect to the Mobility Arrangement for Talented Early -professionals Scheme (MATES)

1. MATES is the scheme established between India and New Zealand.
2. It is giving opportunity to the Indian citizens to live and work in Australia for up to 5 years.
3. This scheme no required any sponsorship from an Australian employer to Indian.

Select the **Incorrect** answer using the codes given below:

- 1 and 2 only
- 2 only
- 2 and 3 only
- None of the above

4) Consider the following statements with respect to Birsa Munda.

1. Birsa Munda lead Ulgulan Revolt against British.
2. He formed a new religion called Birsait.
3. Janjatiya Gaurav Diwas is celebrated to mark the Death anniversary of Sri Birsa Munda.

Select the correct answer using the codes given below:

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

5) It is a solitary vulture found in dry forests, also known as the Asian king vulture distributed in some parts of Southeast Asia feed on carcasses with Critically endangered status. Which of the following vulture is associated with above characteristics?

- White-Rumped Vulture
- Himalayan Griffon
- Red-Headed Vulture
- Eurasian Griffon

### Answers

1. a

#### Mount Lewotobi Laki-Laki volcano

- Mount Lewotobi Laki-Laki is an active volcano located on Flores Island in **Indonesia's** East Nusa Tenggara province.
- It is one of the two main peaks of the twin volcano Lewotobi.
- **Twin Volcanoes** - Lewotobi Lakilaki (man) and Lewotobi Perempuan (woman).



- It is known for its **stratovolcano structure** and is situated close to its counterpart, Lewotobi Perempuan (Female Lewotobi).
- It is Part of the **Pacific "Ring of Fire"**.
- Stratovolcanoes, also known as composite volcanoes, are large, conical volcanoes with steep sides that are made up of layers of lava, ash, and other volcanic debris.
- They are active for long periods of time, sometimes hundreds of thousands of years, and can erupt a variety of magmas.

2. b

### Avian botulism

*The massive deaths of at least 600 migratory birds in a salt Sambhar Lake due to Avian Botulism were reported by the Centre for Avian Research Institute.*

- Avian botulism is **caused by the ingestion of a toxin produced by the bacterium Clostridium botulinum**, which leads to paralysis and can be fatal for birds.
- These bacterial spores are widespread in wetland sediments.
- Spores might survive for years but only develop into bacteria, which produce toxins under certain environmental conditions.
- **Species affected** - They are found mostly in wetland habitats, including invertebrates such as insects, molluscs, and crustaceans, as well as in many vertebrates, including healthy birds.
- **Outbreak** – The conditions like **high temperatures, low oxygen levels, and an abundance of organic nutrients** might contribute to outbreaks among birds.
- **Effect on Birds** – It weakened by travel or low immunity are more vulnerable to diseases like avian botulism.
- It is die and decay, maggots form, spreading contamination in the water body, **further affecting other birds or animals** that consume the infected birds.
- The shift from high to low salinity coincided with the arrival of migratory birds, which favoured bacterial growth.
- The avian botulism **is not confined** to wild and captive bird populations and it also affect humans.

- **Commonality** - The **similar cases have been reported in Australia and the United States**.
- **Treatment** - There is **no treatment for the disease**, it is recommended to immediately remove and dispose of affected birds.

3. a

### Mobility Arrangement for Talented Early-professionals Scheme (MATES)

*Recently, Australia had come up with a new scheme that allows talented young people from India to work in the country.*

- **MATES** – MATES gives **Indian university graduates and early career professionals** a chance to work in Australia for **2 years**.
- This scheme will open for professionals from December this year.
- It has been **established under the Migration and Mobility Partnership Arrangement (MMPA)**.
- **MMPA** – It is a bilateral framework that supports and promotes two-way migration and mobility between the India and Australia, while addressing issues pertaining to illegal and irregular migration.
- MATES is under the aegis of **Ministry of External Affairs**.
- There is **no requirement for sponsorship by an Australian employer**.
- **Eligibility for Visa**- It is open to **Indian nationals who are aged 30 or younger** at the time of application.
- They have not previously participated in MATES.
- They have proficient English language skills.
- They have graduated within 2 years from an eligible educational institution at the time of application.
- They graduated from the top 100 universities of India, according to the National Institutional Ranking Framework (NIRF) ranking 2024.
- They hold a qualification Bachelor's degree or higher in one of the following:
  - Renewable Energy
  - Mining

- Engineering
- Information Communications Technology (ICT)
- Artificial Intelligence (AI)
- Financial Technology (FinTech) and
- Agricultural Technology (AgriTech)

- **Procedure for Visa** – It will be **granted through Ballot**.
- The ballot randomly selects people to apply for visa.
- Ballot application fee is Australian dollar (AUD) 25.
- **Duration** - Visa holders will have 12 months to make their first entry into Australia.
- They may **stay in Australia for 24 months** from the date of first entry.
- It will allow multiple entries to Australia.
- Participants may extend their period of stay by applying for another visa permitting temporary or permanent residence.

4. b

#### Birsa Munda

- Birsa Munda is a tribal leader born in Jharkhand in 1875.
- He fought against the land acquisition by British in chotanagpur region.
- He had forced the colonial officials to introduce laws protecting the land rights of the tribals.
- Birsa Munda formed a **new religion called Birsait**.
- He led **Munda Rebellion (Ulgulan Revolt)** against British.
- He is popularly known as '**Dharti Abba**' or the Earth Father, a folk hero inspiring other Adivasis in their struggle for forest rights in modern times.
- Janjatiya Gaurav Diwas is to mark the **birth anniversary** of Sri Birsa Munda.
- He fought against superstition, animal sacrifice and alcoholism and demanded tribal farmers to boycott 'beth begari system' (forced labour).
- The Chotanagpur Tenancy Act was passed in 1908, which restricted the passing on of land from the tribal people to non-tribals.

5. c

#### Red-Headed Vulture

- **Scientific Name** - *Sarcogyps calvus*.
- It is also known as the **Asian King Vulture**.
- It is a dark, medium-sized vulture with a **bare reddish head** and loose flaps on the side of the neck.
- It distinguished by its scarlet crown and black body.
- **Habitats** - Inhabits **dry forests** and adjacent areas.
- **Distribution** - It is typically found in Central India, Nepal, Myanmar, Thailand, Vietnam, and parts of Kerala, Karnataka, and Tamil Nadu.
- **Behavior** - The vulture is **primarily solitary**, often seen alone or with a mate.
- **Conservation status**
  - **Wild Life Protection Act, 1972** - Schedule-I.
  - **IUCN** - Critically endangered.
- **Threats** - Habitat loss, food scarcity, and, most notably, the use of diclofenac, a drug given to cattle that proved fatal to vultures feeding on carcasses.

**18-11-2024**

1) *Dicliptera srisailamica*, often recently seen in news related to which of the following?

- a. One-horned Rhinoceros
- b. Parasitoid Wasp
- c. Flowering plant species
- d. Jelly Fish

2) Which of the following conditions are made with respect to GRAP Stage-4 restrictions in force in Delhi?

1. Ban on truck entry except essential items carrying or using clean fuel
2. Permanent halt on construction at public projects
3. Bans all activities that involve the use of coal and firewood and diesel generator

4. Strict bans on open burning of waste and biomass.

Choose the correct answer using the codes given below

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

3) Consider the following statements with respect to Measles

1. Measles is a highly contagious airborne bacterial disease.
2. It is unpreventable and it mostly affects children under the age of 5.
3. U.S. Centers for Disease Control and Prevention (CDC) introduced a new treatment procedure to get rid of measles completely.

Which of the statements given above is/are correct?

- a. 1 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. None of the above

4) Consider the following statements with respect to Suez canal

1. It is a sea-level waterway that connects Red Sea to the Mediterranean Sea through the Isthmus of Suez.
2. It is a shorter shipping route for Europe and Asia.

Which of the statements given above is/are correct?

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

5) Consider the following statements with respect to Nugu Wildlife Sanctuary

1. Nugu Wildlife Sanctuary is a protected area located in Mysuru district of Karnataka and a part of the Nilgiri Biosphere Reserve.

2. It serves as a crucial buffer area for the Bandipur Tiger Reserve.

3. It was included in UNESCO World network of Biosphere.

Choose the correct answer using the codes given below

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

## Answers

1. c

### Dicliptera srisailamica

- It is a **new flowering plant species** discovered in Eastern Ghats of Andhra, Telangana.
- **Family** – Acanthaceae, represented globally by 223 known species.
- **Genus** – Dicliptera
  - It includes 27 species in India, 8 of which are endemic and Andhra Pradesh alone is home to 7 recorded species of Dicliptera.
  - Dicliptera is known for its tropical and subtropical presence worldwide.
- It is located in the **Nagarjunasagar Srisaïlam Tiger Reserve** near the popular Srisaïlam area.
- **Nomenclature** - Named after the temple town of Srisaïlam.
- **Habitat** – It was found in **rare patches along stream banks and rocky edges** near waterfalls.
- It is an **erect herb**, reaching up to 90 cm, with four-angled stems covered in fine, deflexed hairs when young.
- Its leaves are ovate, with prominent veins and smooth margins.
- The plant blooms with small, **pink, bi-lipped flowers** arranged in clusters, commonly seen from October to January.
- **Distinction** – Dicliptera srisaïlamica differs from Dicliptera beddomei having short, downturned hairs on the stem and distinctive bracts around the flowers.

- Conservation status of the species has **not yet been** evaluated.



2. c

#### GRAP Stage-4 restrictions in force in Delhi

- According to the Central Pollution Control Board (CPCB) data, Delhi's overall 24-hour average air quality index (AQI) was 484.
- The contribution of stubble burning in neighbouring states to PM<sub>2.5</sub> (a chief pollutant) recently in Delhi was 25.1%.
- The air quality is likely to improve slightly to the 'very poor' category.
- GRAP is a set of emergency measures that kick in to prevent further deterioration of air quality once it reaches a certain threshold in the Delhi-NCR region.
- Graded Response Action Plan -4 Restrictions
  - Ban on truck entry except essential items carrying or using clean fuel
  - **Temporary halt** on construction at public projects
  - Strict bans on open burning of waste and biomass.
  - It bans all activities that involve the use of coal and firewood, as well as diesel generator use for non-emergency services.
  - Authorities have also urged residents to stay indoors as much as possible and to

use public transport to cut vehicular emissions.

- The CAQM suggested online teaching for Classes 6 to 9 students and Class 11.
- It also recommended that offices in the National Capital Region (NCR) work at 50% capacity, with the rest working from home.
- Work-from-home options may be introduced for central government employees.
- State governments could also decide to close colleges, limit non-essential commercial activities and implement odd-even vehicle rules.

3. d

#### Measles

- World Health Organization and the U.S. Centers for Disease Control and Prevention (CDC) said that Measles cases rose 20% last year, driven by a lack of vaccine coverage in the world's poorest countries.
- Measles is a **highly contagious viral disease** caused by the measles virus, which is a single-stranded RNA virus of the genus Morbillivirus within the family Paramyxoviridae.
- **Symptoms**- High fever, Cough, Runny nose, Diarrhea and Pneumonia.
- **Transmission**- It is an airborne disease, spreads through person-to-person contact.
- **Vulnerable**- Unvaccinated young children and pregnant persons are at highest risk of severe measles complications.
- It is **preventable** and it mostly affects children under the age of 5.
- **Prevalent Regions** - Measles is still common, particularly in parts of Africa, the Middle East and Asia.
- **Treatment** - There is **no specific treatment** for measles.
- **Prevention** - Measles Vaccines- The primary method for preventing measles is vaccination. There are several types of measles vaccines:
- **MMR Vaccine**- MMR stands for Measles, Mumps, and Rubella. This combined vaccine protects against all three diseases.
- **MMRV Vaccine**- MMRV stands for Measles, Mumps, Rubella, and Varicella (chickenpox).



This combined vaccine protects against all 4 diseases.

- In some regions, a single measles vaccine may be available, but it is less commonly used compared to the MMR and MMRV vaccines.

4. c

### Suez Canal

- The Suez Canal remains one of the busiest waterways in the world through which 12% of global commerce passes.
- It is a sea-level waterway running north-south across the Isthmus of Suez in Egypt that connects **Red Sea to the Mediterranean Sea through the Isthmus of Suez.**
- The canal separates the African continent from Asia, and it provides the shortest maritime route between **Europe and the lands lying around the Indian and western Pacific oceans.**
- The Suez Canal was built as a joint enterprise between the French and the Ottoman Empire.
- The canal extends between Port Said in the north and Suez in the south, with dredged approach channels north of Port Said, into the Mediterranean, and south of Suez.
- To the west of the canal is the low-lying delta of the Nile River, and to the east is the higher, rugged, and arid Sinai Peninsula.
- The Suez Canal is an **open cut canal system** without the locks system.



5. c

### Nugu Wildlife Sanctuary

- Nugu Wildlife Sanctuary is a protected area located in **Mysuru district of Karnataka and a part of the Nilgiri Biosphere Reserve.**
- It serves as a crucial **buffer area for the Bandipur Tiger Reserve.**
- It includes the backwaters of Nugu Dam, constructed across the river Nugu flowing through the Kaveri basin.
- It was included in **UNESCO World network of Biosphere.**
- **Vegetation** – Mixed deciduous trees and dry deciduous scrubs.
- **Flora** – Dipterocarpus indicus, Calophyllum tomentosum, and Hopea parviflora.
- **Fauna** – It harboured a good number of tigers, leopards, wild dogs or dholes, spotted hyenas, sloth bear, gaur, sambar, chital and four-horned antelope.
- All India Tiger Estimation for 2022 showed the presence of tigers and elephants in the Nugu Wildlife Sanctuary and hence had suggested that it be notified as core and critical area of Bandipur.

**19-11-2024**

1) Consider the following statements with respect to Grievance Redressal Assessment and Index (GRAI)

1. The Grievance Redressal Assessment and Index (GRAI) was conceptualized and designed by the Department of Administrative Reforms and Public Grievances.
2. It comes under the Ministry of Commerce and Industry.
3. Index is based on 4 Dimensions and 10 Indicators adopted by the Central Ministries and Departments.

Choose the correct answer using the codes given below

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

2) Consider the following statements with respect to the new Electric Vehicles (EV) policy of Telangana

1. The government has announced with immediate effect a 100% exemption from road tax and registration fee on Evs for 5 years.
2. There is no limit to the tax exemptions of Evs that can be registered.
3. The tax exemptions will apply to commercial passenger vehicles like taxis and tourist cabs, three-seater auto-rickshaws, electric tractors, and electric buses as well.

Choose the correct answer using the codes given below

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

3) Consider the following statements with respect to Grand Commander of the Order of the Niger (GCON)

1. Grand Commander of the Order of the Niger (GCON) is the highest national honor of Nigeria.
2. It is awarded for the exemplary service to the nation.

Which of the following statement (s) above mentioned 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 Slender-billed Curlew

1. It is a bird in the wader family has cryptic plumage and a long, down-curved bill.
2. A recent survey indicates that the population of the Slender-billed Curlew is steadily increasing because of the conservation program.

Which of the following statement (s) above mentioned 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 Guru Ghasidas-Tamor Pingla Tiger Reserve

1. It is the 56th Tiger Reserve and the 3rd tiger reserve largest of India, located in Chhattisgarh.
2. It is nestled in the Chota Nagpur plateau and partly in Baghelkhand plateau.
3. Core/critical tiger habitat comprising the Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary

Choose the correct answer using the codes given below

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

## Answers

1. a

## Grievance Redressal Assessment and Index (GRAI) 2023

- Grievance Redressal Assessment and Index (GRAI) was conceptualized and designed by the **Department of Administrative Reforms and Public Grievances (DARPG)**
- **Ministry** – It is based on the recommendation of Parliamentary Standing Committee of **Ministry of Personnel, Public Grievances and Pensions.**
- **Aim** – To present organization-wise comparative picture and provide valuable insights about strengths and areas of improvement regarding grievance redressal mechanism.
- Index is Based on **4 Dimensions and 11 Indicators** Assessing Grievance Redressal Mechanism Adopted by the Central Ministries and Departments.
- **Dimensions** – Efficiency, Feedback, Domain and Organisational Commitment.

## Rankings, 2023

- To compute the index, data between January and December 2023 was used from the Centralized Public Grievance Redressal and Management System (CPGRAMS).

- Out Of 89 Ministries And Departments, 85 Demonstrated A Positive Trend in their GRAI Scores In 2023 Over 2022.
- **Group A** – Department Of Agriculture and Farmers Welfare Topped the Ranking Followed By Department Of Posting.
- **Group B** The Comptroller & Auditor General Of India Topped the Ranking Closely Followed By The Department Of Land Resources.
- **Group C** – Department Of Investment & Public Asset Management And Ministry Of Development Of North Eastern Region Secured First And Second Positions Respectively.

- With these exemptions, two-wheelers can save up to Rs 15,000 and four-wheelers can save up to Rs 3 lakh in taxes and fees.
- Electric buses operated by companies or firms to ferry their employees are also exempt from the taxes.

3. b

### Grand Commander of the Order of the Niger (GCON)

- President of Niger conferred the national award, "Grand Commander of the Order of Niger" on Prime Minister Shri Narendra Modi for his statesmanship and contribution to fostering India-Nigeria ties.
  - Modi is the 2nd foreign dignitary to receive this prestigious award.
  - Queen Elizabeth was the 1st foreign recipient of the GCON in 1969.
- **Grand Commander of the Order of the Niger (GCON)**- The Grand Commander of the Order of the Niger (GCON) is the second-highest national honor of Nigeria.
- It is awarded for the exemplary service to the nation.
- PM Modi gifted the magnificent **Silofar Panchamrit Kalash** to Nigerian President Bola Ahmed Tinubu.
- **Silofar Panchamrit Kalash** – It is a beautifully crafted Panchamrit Kalash, is a handcrafted pot.
- It is an example of Kolhapur's traditional craftsmanship from **Maharashtra**.
- The decorative item is made from high-quality silver and features intricate engravings, floral patterns and depictions of deities.
- It is often used in religious ceremonies and carries a lid and handle, which is used for serving Panchamrit, a sacred mixture of milk, curd, ghee, honey, and sugar during rituals.

4. a

### Slender-billed Curlew

- Scientists recently announced that the Slender-billed Curlew could have become extinct. The reasons for the extinction are not clear.
- It is the first known global bird extinction from mainland Europe, North Africa and West Asia.

Groups	Registered Grievance Range	No. of Ministries/ Departments
A	Registered grievances > 10,000	28
B	Registered grievances 2,000 to 9,999	33
C	Registered grievances < 2,000	28

- The report also presents brief description of technical partners DARPG has engaged to facilitate the Ministries and Departments to optimally utilize CPGRAMS.

2. b

### Telangana's EV policy

- The Telangana government recently came out with a new Electric Vehicles (EV) policy as part of its push for cleaner air, environment sustainability, and energy efficiency.
- It aims to promote the use of electric vehicles in Telangana in a bid to control air pollution, especially in and around Hyderabad.
- **Key features** – The government has announced with immediate effect a **100% exemption** from road tax and registration fee on Evs for 2 years, till December 31, 2026.
- A previous limit on tax exemptions for the first 5000 Evs has been lifted and, as per the new policy, there is **no limit** to the number of Evs that can be registered with the tax exemptions.
- The tax exemptions will apply to two-wheelers, four-wheelers, **commercial passenger vehicles** like taxis and tourist cabs, three-seater auto-rickshaws, electric tractors, and electric buses.

- The Slender-billed Curlew (*Numenius tenuirostris*) is an **extinct species of curlew** that was native to Eurasia and North Africa.
- **Scientific Name** - *Numenius tenuirostris*.
- It is a bird in the wader family Scolopacidae.
- This species has cryptic (meaning it employs markings and colouration serving to camouflage itself in its natural environment) plumage and a long, down-curved bill.
- It is a migratory shorebird that once bred in western Siberia and wintered around the Mediterranean.
- The breeding adult is mainly greyish brown above, with a whitish rump and lower back. The underparts are whitish, heavily streaked with dark brown.
- The flanks have round or heart-shaped spots. The non-breeding plumage is similar, but with fewer flank spots.
- It feeds by using their bills to probe soft mud for small invertebrates, but will also pick other small items off the surface if the opportunity arises.
- It used to be highly gregarious outside the breeding season, associating with related species, particularly Eurasian curlews.
- **Conservation status before extinction**
  - IUCN – Critically Endangered.
  - CITES - Appendix I.
  - **Convention on migratory species** - Appendix I and II.



5. c

### Guru Ghasidas-Tamor Pingla Tiger Reserve

- Recently, Union Minister for Environment, Forest and Climate Change notified the 56th Tiger Reserve in Chhattisgarh.
- It is the **56th Tiger Reserve of India located in Chhattisgarh**.
- The National Tiger Conservation Authority (NTCA) had accorded final approval for notifying it in 2021.
- It is nestled in the **Chota Nagpur plateau and partly in Baghelkhand plateau** thus comprises varied terrains, dense forests, streams and rivers.
- Core/critical tiger habitat comprising the
  - **Guru Ghasidas National Park**
  - **Tamor Pingla Wildlife Sanctuary**
- Buffer zone spans around 780.15 square kms.
- Guru Ghasidas-Tamor Pingla Tiger Reserve becomes the **3rd largest tiger reserve** in India after Nagarjunasagar-Srisailem Tiger Reserve in Andhra Pradesh and Manas Tiger Reserve in Assam.
- This reserve is in line with landscape approach as envisaged in India's National Wildlife Plan.
- It is contiguous with the Sanjay Dubri Tiger Reserve in Madhya Pradesh forming a landscape complex of nearly 4500 sq.kms.
- **Connection in west** - Bandhavgarh Tiger Reserve, Madhya Pradesh.
- **Connection in east** – Palamau Tiger Reserve, Jharkhand.
- **Biodiversity** - A total of 753 species, including 365 invertebrates and 388 vertebrates, have been documented here by the Zoological Survey of India.
- The invertebrate fauna is represented mostly by the class insecta.
- The vertebrate fauna includes 230 species of birds and 55 species of mammals.

**20-11-2024**

1) Consider the following statements with respect to Exercise 'Sanyukt Vimochan, 2024'

1. It was conducted across multiple domains for the first time on such a large scale in the Eastern Theatre.



2. It is an integrated joint operations that involves Army, Navy and Air Force.

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

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

2) Barnawapara Wildlife Sanctuary, sometimes seen in the news recently, is situated at?

- a. Chhattisgarh  
b. Odisha  
c. Tamil Nadu  
d. Meghalaya

3) Consider the following statements with respect to Global Soil Conference, 2024

1. The conference aims to address various challenges, issues and concerns of soils and the latest technology developments in sustainable soil management.  
2. It is organized by the Ministry of Agriculture & Farmers Welfare in in collaboration with International Union of Soil Sciences.

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

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

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

- a. It is a condition where people have limited ability to create visual imagery in their mind.  
b. A flowering plant found in the Eastern Ghats of Andhra Pradesh and Telangana.  
c. A disease caused by the bacteria Rickettsia typhi.

- d. A complex disorder made up of cardiovascular disease, kidney disease, obesity and Type 2 diabetes.

5) Consider the following pairs:

<b>Terms in News</b>		<b>Countries</b>
1. Cooktown	–	Australia
2. Chancay	–	Brazil
3. Umiam Lake	–	India

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

### Answers

1. d

### Exercise 'Sanyukt Vimochan, 2024'

- Exercise 'Sanyukt Vimochan, 2024' is a **multilateral Annual Joint Humanitarian Assistance and Disaster Relief (HADR) Exercise**.
- It is **conducted by the Indian Army**.
- The exercise conducted by the Konark Corps of Southern Command of Indian Army, at Ahmedabad and Porbandar in **Gujarat**.
- It focuses on the theme of '**Cyclone in Coastal Region of Gujarat**'.
- The exercise includes representatives from:
  - National Disaster Management Authority (NDMA),
  - Gujarat State Disaster Management Authority (GSDMA) and
  - Meteorological Department and FICCI.
- The Multi-Agency Capability Demonstration featured various agencies practicing coordinated logistics, rapid response and effective disaster management strategies in a simulated cyclone scenario.

2. a

### Barnawapara Wildlife Sanctuary

- Barnawapara the name coined from village Bar and Nawapara.
- Barnawapara Wildlife Sanctuary located in the district **Raipur of Chhattisgarh**.
- The topography of the sanctuary is *plain and undulating terrain*.
- The *rivers Balmedhi, Jonk and Mahanadi* are the life line river which runs along the sanctuary to fulfill the water scarcity of the sanctuary.
- The annual rainfall is 1200 mm and the climate is pleasant during the winter season between the months of November to February.
- The sanctuary contains *major vegetation of Teak, Sal and Mixed forest*.
- The **Balar reservoir situated inside** the sanctuary supports number of wetland birds and fishes.
- This sanctuary promotes Ecotourism to create awareness to the public.

- 95% of food is produced directly/indirectly from soil.
- **Challenge** – Include soil degradation, nutrient mining, and declining soil health.
- **Current Status** – India produces 330 million tons of food grains annually.
- Generates USD 50 billion in export earnings and 30% of India's soil is degraded.
- Over 220 million Soil Health Cards distributed since 2015.
- **Key Concerns:**
  - Growing soil health crisis.
  - Chemical fertilizer dependence.
  - Need for sustainable land management.
  - Importance of reducing the gap between scientific research and farming practices.

3. a

### Global Soil Conference, 2024

*The Union Minister of Ministry of Agriculture & Farmers Welfare has recently addressed the Global Soil Conference, 2024.*

- The conference aims to address various challenges, issues and concerns of soils and the latest technology developments in sustainable soil management.
- The conference is **organized by Indian Society of Soil Science** with International Union of Soil Sciences. (**Statement 2 is incorrect**)
- The conference aims to produce:
  - Global recommendations for sustainable soil management.
  - Enhanced international research partnerships.
  - Creation of a global network of soil scientists.
  - Greater public awareness of soil's importance beyond agriculture.
- **Theme** – “Caring soils beyond food security: Climate Change mitigation and Ecosystem Services”.
- **Significance** – World population expected to reach 9.1 billion by 2050 (34% increase).

4. a

### Aphantasia

- Aphantasia is a condition where *people have limited or no ability to create visual imagery in their mind*.
- It affects approximately 2% of the population.
- The condition was first noted by Francis Galton in the **1880s** and term coined by neurologist Adam Zeman in 2015.
- People without aphantasia usually show strong neural activity in visual cortex when hearing sounds.
- People with aphantasia usually showed weaker neural responses in visual cortex.

5. b

### Cooktown, Chancay & Umiam Lake

- **Cooktown** – It is situated in **Australia**.
- **Umiam Lake** – The Union Minister of Civil Aviation attended a Seaplane Demo launch at **Umiam Lake**, Ri Bhoi district of **Meghalaya**,
- **Chancay** – It is situated in **Peru**.
- The USD 3.6 billion Chinese-funded Chancay port project in Peru has raised the concerns of the USA.

**21-11-2024**

1) Consider the following statements with respect to Strengthening Provision of Eye Care Services project, 2030

1. It aims to address the need to combat refractive errors that affects over 2.2 billion people globally.
2. It is an initiative by the World Health Organization (WHO).
3. Refractive errors are a common eye condition that occur when the shape of the eye prevents light from focusing on the retina.

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 the Leadership Group for Industry Transition (LeadIT)

1. It brings together countries and companies that are committed to action to achieve the Paris Agreement.
2. It was launched by the governments of France and India.
3. It is the first global high level initiative aimed at reaching net zero emissions from heavy industry.

Select the correct answer using the code given below:

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

3) Consider the following statements with respect to 'Bhu-Neer' Portal

1. It is designed to provide comprehensive data regarding the legal framework governing groundwater extraction, regulations at the state and national levels.

2. It is developed by the Central Ground Water Authority (CGWA) in collaboration with National Informatics Centre.

Which of the statements given above is/are correct?

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

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

- a. First indigenous antibiotic to Combat Drug Resistance.
- b. Endangered Species of bird endemic to Western Ghats.
- c. A red dwarf star, nearest star to the Sun.
- d. A protection software used to safeguard important credentials.

5) Agumbe Rainforests, sometimes seen in the news recently, is situated at?

- a. Karnataka
- b. Meghalaya
- c. Jharkhand
- d. Uttarakhand

**Answers**

1. c

**Strengthening Provision of Eye Care Services project (SPECS), 2030**

*SPECS, a global project partnered by the World Health Organization (WHO) to combat refractive errors will soon be implemented in Assam.*

- SPECS Project aims to address the need to **combat refractive errors**, the leading cause of vision impairment affecting over 2.2 billion people globally.
- It is the **World Health Organization (WHO)'s first at a large scale in South Asia and Southeast Asia**.
- At least 800 million of such people have conditions that can be corrected with reading glasses.

- The project is a collaboration of the WHO, the National Health Mission, the Assam government, and the Sri Sankaradeva Nethralaya (SSDN).
- Its service delivery model, titled 'Integrated People-Centred Eye Care', will be based on the SSDN's community service framework and is envisioned to serve as a prototype within the WHO's global initiatives.
- According to the WHO, only 36% of individuals with refractive errors currently have access to appropriate spectacles, leaving a significant majority underserved, particularly in low- and middle-income regions.
- The initiative included village adoption, enumeration, and screening, *aiming to cover 100% of the population in the adopted villages.*
- **Refractive errors** are a common eye condition that occur when the shape of the eye prevents light from focusing on the retina.
- This can cause blurred vision, headaches, eyestrain, and squinting.
- The most common types of refractive errors are:
  - **Myopia (nearsightedness):** Difficulty seeing distant objects clearly
  - **Hyperopia (farsightedness):** Difficulty seeing close objects clearly
  - **Astigmatism:** Distorted vision caused by an irregular curvature of the cornea or lens
  - **Presbyopia:** Difficulty seeing objects at near distance that occurs with age
- Refractive errors *can be corrected with glasses, contact lenses, or laser eye surgery.*

2. b

### Leadership Group for Industry Transition (LeadIT)

*The governments of India and Sweden has co-chaired the Annual Summit of the LeadIT, held on the sidelines of COP29 to the UN Climate Change Summit in Baku, Azerbaijan.*

- Leadership Group for Industry Transition (LeadIT) was the **first global high level initiative aimed at reaching net zero emissions from heavy industry.**
- LeadIT was launched by **Sweden and India** at the UN Climate Action Summit in 2019. (**Statement 2 is incorrect**)

- **Vision** – Align industry with the Paris Agreement by 2030 to reach net-zero carbon emissions by 2050.
- **Mission** – To drive the development of an inclusive, just and equitable industry transition by:
  - Fostering public-private partnerships,
  - Mobilising resources and
  - Supporting knowledge-sharing.
- **Three pillars** – The work of LeadIT 2.0 is organised according to three pillars:
  1. **Pillar 1** – Global forum for just & equitable industry transition.
  2. **Pillar 2** – Technology transfer & co-development.
  3. **Pillar 3** – Industry transition partnerships.
- **Annual Summit of LeadIT** – It brings together the country and company members to discuss low-carbon industrial transition.
- The objective is to support plans that align heavy industry with the objectives of the Paris Agreement.
- The summit spotlighted the critical role of transforming sectors such as steel and cement.
- In this year (2024) the summit was held on the side-lines of COP29 to the UN Climate Change Summit in Baku, Azerbaijan.
- It was co-chaired by the India and Sweden.

3. c

### 'Bhu-Neer' Portal

*Hon'ble Minister of Jal Shakti recently launched the "Bhu-Neer" portal that aims to provide comprehensive data regarding the legal framework governing groundwater extraction.*

- 'Bhu-Neer' Portal is designed to provide comprehensive data regarding the legal framework governing groundwater extraction, regulations at the state and national levels.
- This portal will serve as a **one-stop platform** for managing and regulating groundwater resources, aimed at ensuring transparency, efficiency, and sustainability in groundwater usage.
- It is an advanced portal **developed by Central Ground Water Authority (CGWA) in collaboration with the**



**National Informatics Centre (NIC)** for improved groundwater regulation.

- It is designed to provide comprehensive details regarding the legal framework governing groundwater extraction, regulations at the state and national levels.
- Its centralized database will allow users to access critical information on groundwater compliance, policies, and sustainable practices.

4. a

### Nafithromycin

Union Minister of Science and Technology has recently launched the first indigenous antibiotic "Nafithromycin" for resistant infections.

- Nafithromycin is the country's first indigenously developed antibiotic aimed at tackling Antimicrobial Resistance (AMR).
- Nafithromycin has been developed with the support of "Biotechnology Industry Research Assistance Council" (BIRAC) and has been brought to market under the trade name "**Miqnaf**" by pharma company "Wolkardt".
- It is designed to *treat Community-Acquired Bacterial Pneumonia (CABP)*, a severe illness caused by drug-resistant bacteria.
- CABP affects vulnerable populations, including children and the elderly as well as immune compromised hosts like Patients with Diabetes, Cancers and so on.
- It can address the drug-resistant pneumonia, a condition responsible for over two million deaths globally each year.
- India bears 23% of the world's community pneumonia burden, faces challenges with existing treatments, including widespread resistance to drugs like *azithromycin*.
- **Significance of Nafithromycin** – It is ten times more effective than current drugs available for AMR and offers a safer, faster, and more tolerable solution for patients.
- Its efficacy stands out as it targets both typical and atypical pathogens, offering a potent solution where no new antibiotic in this class has been developed worldwide for over three decades.
- Beyond its efficacy, Nafithromycin boasts superior safety and tolerability.
- The antibiotic has minimal gastrointestinal side effects, no significant drug interactions, and

remains unaffected by food, making it a versatile option for patients.

- It is the first new antibiotic in its class to be developed globally in over 30 years.

5. a

### Agumbe Rainforests

- Agumbe Rainforests is situated on a mountain pass that connects **the plains of Karnataka** with the coastal region,
- Agumbe is covered with verdant forests, sparkling streams and little cascades, making the region in the Western Ghats virtually a Garden of Eden.
- It receives an *average rainfall of about 8000 mm* and thus called "Cherrapunji of South India".
- The tropical research station called the Agumbe Rainforest Research Station (ARRS) to study the endangered King Cobra species, which is also a major attraction.

**22-11-2024**

1) Consider the following statements with respect to Harekrushna Mahtab

1. He was committed to Gandhian ideals and a member of Indian National Congress.
2. He won the Sahitya Akademi Award in 1983 for 'Gaon Majlis'.
3. He was the first Chief Minister of Madhya Pradesh.

How many of the statements given above are correct?

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

2) VISION Portal, sometimes seen in the news recently, is associated with?

- a. A one-stop platform for managing and regulating groundwater resources.
- b. Space-based inputs on natural disasters.
- c. Nurture skill development in underprivileged children.
- d. Online monitoring of thermal projects.

3) Consider the following statements with respect to Rinderpest

1. It is a contagious viral disease that affects the cloven-hoofed animals.
2. It is caused by a virus of the Paramyxoviridae family, genus Morbillivirus.
3. It can affect humans and can be transmitted sexually.

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 Indian Peafowl

1. Indian peafowl are a species in a group of birds called pheasants.
2. It is listed under Schedule-I of the Wildlife Protection (Amendment) Act, 2022.
3. It is endemic to India.

Select the correct answer using the code given below:

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

5) Indian Arrival Monument, sometimes seen in the news recently, is situated at?

- a. Guyana
- b. Nigeria
- c. Brazil
- d. India

## Answers

1. b

### Harekrushna Mahtab

Recently the Department of Posts has released a commemorative postage stamp to honour the 125th Birth Anniversary of Dr. Harekrushna Mahtab.

- Dr. Harekrushna Mahtab, fondly known as **Utkal Keshari**.
- He was born on November 21, **1899**, in Agarpara village, Bhadrak district, **Odisha**.
- He was a multifaceted leader in Indian history, known as a freedom fighter, politician, historian, writer, social reformer and journalist.
- He was deeply influenced by figures like Swami Vivekananda, Ramkrishna Paramhansa and Mahatma Gandhi.
- He joined the Indian National Congress (INC) during the Non-Cooperation Movement and led the salt satyagraha in Odisha.
- **He was the first Chief Minister of Odisha. (Statement 2 is incorrect)**
- His contribution as Chief Minister include:
  - Focusing on uniting Odia-speaking princely states,
  - Relocating the state capital to Bhubaneswar and
  - Spearheading development projects like the Hirakud Dam and Rourkela Steel Plant.
- He served as the **Union minister for commerce and industry** and was elected to the Lok Sabha unopposed in 1962.
- He was also a significant literary figure, writing extensively in both Odia and English and winning accolades for his work
- The historical account 'History of Orissa' was one of his significant contribution and won the **Sahitya Akademi Award in 1983 for 'Gaon Majlis'**.

2. c

### Viksit Bharat Initiative for Student Innovation and Outreach Network (VISION) Portal

- Viksit Bharat Initiative for Student Innovation and Outreach Network (VISION) Portal aims to nurture education, skill development and innovation among underprivileged children.
- It aids in underprivileged youngsters helps democratise Start-Up skills.
- Initiatives like VISION are integral to realising the country's aspirations under Vision India

2047, which aims to position India as a global leader in technology, education, and economic growth.

- The portal bridges gaps between urban and rural India.

3. b

### Rinderpest

- Rinderpest is also known as *cattle plague*, is a contagious viral disease affecting cloven-hoofed animals (mainly cattle and buffalo).
- In **2011**, rinderpest became the *second disease* to be declared **officially eradicated**, following eradication of the human disease smallpox in 1980.

*Cloven-hoofed animals are mammals with two toes on each foot and their hooves are split into two separate parts.*

- Rinderpest is the *first animal disease to have been entirely eradicated* in the history of humankind.
- Rinderpest is **caused by a virus of the Paramyxoviridae family, genus Morbillivirus**.
- Many species of wild and domestic cloven-hoofed animals (including sheep and goats) *show only mild symptoms* of the disease when infected.
- The *mortality rates can reach up to 100%* in highly susceptible herds for *cattle and buffalo* when they are affected by the disease.
- Rinderpest historically occurred in Europe, Africa and Asia.
- *The Americas and Oceania never faced rinderpest epizootics.*
- Rinderpest is **spread by effective contact between animals carrying the virus and susceptible animals**.
- The virus is found in nasal secretions a few days before any clinical signs appear.
- Other than cattle and buffalo, rinderpest can infect zebu, water buffaloes, African buffaloes, eland, kudu, wildebeest, various antelopes, bush-pigs, warthogs, giraffes, sheep and goats.
- Some wild animals *can carry the virus without showing signs* of disease and in a few cases have made contact with domestic animal populations, leading to (re)introduction of the disease.

- There is no public health risk, since rinderpest **does not affect people**. (Statement 3 is incorrect)

4. b

### Indian Peafowl (*Pavo cristatus*)

- Indian peafowl are a species in a group of birds called pheasants.
- The males are called peacocks, while the females are called peahens. Together, they are peafowl.
- **Pheasants** are large, brightly coloured birds with rounded bodies and long tails that are native to Eurasia but can be found all over the world.
- Peafowl are *among the largest of all birds that fly*. (Ostriches, emus, and other such birds are bigger, but cannot fly.)
- **Peahens** – Are more drab than their male counterparts, with mostly brown on their back with a white belly.
- Females don't have long tail feathers, but they do have a crest on their head and green neck feathers.
- **Protection** – It is listed under Schedule-I of the Wildlife Protection (Amendment) Act, 2022.
- It is accorded "**least concern status**" under the red list of *International Union for Conservation of Nature*.
- **Range** – Indian peafowl are native to India and Sri Lanka, in South Asia. (Statement 3 is incorrect)
- They've been introduced to other countries, usually as exhibits in parks, zoos and nature canterers or as domestic pets.



- c. Statement-I is correct but Statement-II is incorrect
- d. Statement-I is incorrect but Statement- II is correct

2) 'Jobs at Your Doorstep' Report, sometimes seen in the news recently, is an initiative of?

- a. World Bank
- b. International Labour Organization
- c. World Economic Forum
- d. United Nations Office for Project Services

3) Consider the following statements with respect to World Crafts Forum, 2024

1. It marks a unique moment to elevate the country's contributions to the global craft sector.
2. It was organised by Export Promotion Council for Handicrafts and Development Commissioner of Handicrafts, in collaboration with the World Crafts Council.
3. Kamaladevi Chattopadhyay is one of the founders of World Crafts Council.

How many of the statements given above are correct?

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

4) WOH G64, sometimes seen in the news recently, is associated with?

- a. A giant star that dwells in the Large Magellanic Cloud.
- b. A medicinal plant that increases metabolism in humans.
- c. A newly identified species of Silver-line butterfly.
- d. Waxy substance in the digestive system of sperm whales.

5) Consider the following statements with respect to Pravridhi

5. a

### Indian Arrival Monument

Prime Minister Narendra Modi recently visited the Indian Arrival Monument at Monument Gardens in Georgetown, Guyana.

- Indian Arrival Monument is a **replica of the first ship** which arrived in **Guyana** in 1838 bringing indentured migrants from India.
- It was gifted by India to the people of Guyana in 1991.
- Prime Minister Modi also paid homage to **Mahatma Gandhi at his statue** in the historic **Promenade Gardens in Georgetown, Guyana**.
- The statue was installed in commemoration of **Gandhiji's 100th birth anniversary** in 1969.

**23-11-2024**

1) Consider the following statements:

**Statement-I:** G-quadruplex (GQ) are special patterns in the Mpx virus's genetic material (DNA).

**Statement-II:** Fluorogenic Molecular Probe (BBJL) is a new method that can accurately detect the Mpx virus's genetic material (DNA).

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



1. It is a pan-India Product Accelerator Programme to transform India's manufacturing landscape and drive technological self-reliance.
2. It is a platform that collaborates enterprises, academia, research laboratories and investors.
3. It was launched by the Indian Institute of Technology, Madras.

Select the correct answer using the code given below:

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

## Answers

1. a

### Fluorogenic Molecular Probe (BBJL)

Scientists from Jawaharlal Nehru Centre for Advanced Scientific Research have identified a new route to understand the virology of Monkey Pox Virus (MPV) by using the BBJL.

- Fluorogenic molecular probe (BBJL) is a tiny molecular tool to find specific patterns in the Mpox virus's DNA.
- **Working mechanism** – When BBJL isn't connected to anything, it stays dark and doesn't glow.
- When it finds and attaches to the special DNA patterns (called G-quadruplex or GQ) in the Mpox virus, it lights up very brightly.
- The glow is incredibly strong such that it is about 250 times brighter than its normal state.
- This dramatic change in brightness makes it easy for scientists to know when they've found the virus.

G-quadruplex (GQ) are special patterns that are found in the Mpox virus's genetic material (DNA).

- **Features of BBJL:**
  - **Accuracy** – BBJL only lights up when it finds the exact DNA pattern from Mpox virus.
  - **Specificity** – It won't get confused by similar patterns in other viruses or human DNA.
  - **Sensitivity** – The strong glow makes it easy to detect even small amounts of the virus.

- **Reliability** – It helps avoid false positive results that can happen with other testing methods.

2. a

### 'Jobs at Your Doorstep' Report

Union Minister for Education has recently launched a report titled *Jobs at Your Doorstep: A Jobs Diagnostics for Young People in 6 States, in New Delhi*.

- 'Jobs at Your Doorstep' Report was launched by Education Minister Dharmendra Pradhan and Labour Minister Mansukh Mandaviya.
- It's a **World Bank report** focusing on jobs diagnostics for young people.
- It covers 6 states such as Himachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Odisha and Rajasthan.
- **Purpose of the Report** – Acts as both a diagnostic tool and roadmap.
- Links education with India's jobs agenda.
- Identifies priority sectors with highest employment potential for secondary school graduates.
- Analyses skills gaps between school trades and local industry needs.
- **Strengthening Teaching-Learning and Results for States (STARS) Program** – The World Bank assists the Ministry of Education under this program.
- It has a national component under which key reforms are shared and disseminated for implementation.
- **Features of the report** – The report underscores the significant benefits of embedding skill-based education from Classes 9-12 to prepare students for diverse career paths relying on a bottom-up approach, going deep in districts of the six states.
- These present varying socio-economic profiles offer a nuanced view of how industry and government can both contribute towards the jobs agenda.
- **Significance** – It uses a bottom-up approach focusing on district-level analysis.
- Aims to prepare workforce for future job markets.
- Emphasizes decentralized, market-led skill development.

- Focuses on making vocational education fiscally sustainable.

3. c

### World Crafts Forum, 2024

*The World Crafts Forum is being held at New Delhi, India showcasing craftsmanship, innovation, and sustainability while promising to inspire a resurgence of the crafts movement worldwide.*

- World Crafts Forum, 2024 aids to elevate the country's contributions to the arts and crafts but celebrates India's rich craft and cultural legacy.
- It creates a global ecosystem for artists and craftsmen by showcasing many of India's artisans and craft traditions, giving them a unique display with the global craft market.
- This showcase is about the most valued traditional crafts as well as inspiring the young generation.
- It is held at the National Crafts Museum & Hastkala Academy, Delhi.
- It is **organised by the Export Promotion Council for Handicrafts (EPCH) and Development Commissioner of Handicrafts, in collaboration with the World Crafts Council (WCC).**
- The Forum will be a congregation of craftspeople from as many as **20 countries** and artisans from across India.
- **World Crafts Council (WCC) AISBL** – It was founded at the 1st World Crafts Council General Assembly in New York on June 12, **1964**.
- The **founder** of WWC include Ms. Aileen Osborn Vanderbilt Webb, Ms. Margaret M. Patch, and **Smt Kamaladevi Chattopadhyay**.
- The main objective of the World Crafts Council AISBL is to *strengthen the status of crafts in cultural and economic life.*
- The Council aims to *promote fellowship among crafts-persons* by offering them encouragement, help, and advice.

*Smt Kamaladevi Chattopadhyay was one of the first women to contest an election in colonial India and to be arrested for civil disobedience.*

- **India is one of the members of it.**
- WCC fosters and assists cultural exchange through conferences, international visits,

research study, lectures, workshops, exhibitions, and other activities.

4. a

### WOH G64

*European Southern Observatory's Very Large Telescope Interferometer (ESO's VLTI) recently observed that WOH G64, that revealed some crucial details about its activity and surrounding layers.*

- The WOH 64 is a **giant star** that dwells in the *Large Magellanic Cloud*, a dwarf or satellite galaxy that orbits Milky Way.
- It was discovered in the 1970s by Bengt Westerlunds, Olander, and Hedin.
- Incidentally, the WOH in its name is the acronym for the names of its three discoverers.
- The star is believed to be around 1,60,000 light years away from Earth.
- The star is **classified as a red supergiant** owing to its size, which is roughly 2,000 times that of the Sun.
- In 2005 and 2007, the team reportedly used *European Southern Observatory's Very Large Telescope Interferometer (ESO's VLTI)* in the *Atacama Desert of Chile* to ascertain the features of the star.
- To get an accurate image, the team had to wait for the development of GRAVITY, a set of VLTI's second-generation instruments.
- Red super-giants like WOH G64 shed their outer layers, which are mainly gas and dust, in the final stages of their lifecycles.
- This process can continue for thousands of years.
- This star is one of the most extreme of its kind, and any drastic change may bring it closer to an explosive end.
- According to the team, the materials that are being shed could be responsible for the dimming of the star and the unusual shape of the dust cocoon around it.

5. b

### Pravriddhi

*Pravriddhi, a product accelerator programme was recently launched by the Indian Institute of Science (IISc).*

- Pravriddhi is a *pan-India Product Accelerator Programme* to transform India's

manufacturing landscape and drive technological self-reliance.

- It serves as a platform for enterprises, academia, research laboratories, and investors to collaborate to drive innovation and new product development for a self-reliant India.
- It was **launched by the Foundation for Science, Innovation and Development (FSID) at Indian Institute of Science (IISc)**.
- It unites premier Indian institutions and enterprises to develop innovative solutions through strategic partnerships and cutting-edge R&D.

### 25-11-2024 & 24-11-2024

1) Consider the following statements with respect to National Gopal Ratna Award

1. The objective of the award is to recognize and encourage individuals and organizations working in the livestock sector.
2. The Award consists of a cash prizes along with a Certificate of merit and memento.
3. In India, livestock sector comprises one third of the agriculture.

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 Commission for Air Quality Management

1. The objectives of it is to issue directions and entertain complaints, for the purpose of protecting and improving the quality of air in the National Capital Region (NCR) and adjoining areas.
2. It was established in 2020 through ordinance, by replacing the EPCA (Environmental Pollution (Prevention and Control) Authority).

Which of the statements given above is/are correct?

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

3) Consider the following statements with respect to Transit of Venus

1. It is an astronomical event that occurs when Venus passes between the Earth and the sun.
2. It occurs in pairs periodically.

Which of the statements given above is/are correct?

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

4) Consider the following statements with respect to International Cooperative Alliance (ICA)

1. It serves as the apex body for the cooperative movement, providing a global platform for collaboration, knowledge exchange, and coordinated action.
2. Regional Assembly is the highest policy body of the International Cooperative Alliance Asia-Pacific (ICA-AP).

Which of the statements given above is/are correct?

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

5) Consider the following statements with respect to Dendrites

1. They are branch-like extensions of a neuron that act as its main receiving structures.
2. Their primary job is to collect signals from other neurons and pass them to the neuron's main body, called the soma, for processing.
3. A single neuron can classify inputs that are traditionally seen as too complex for one cell to handle.

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

### National Gopal Ratna Award (NGRA), 2024

*Recently, the department of Animal Husbandry and Dairying has announced the winners of the National Gopal Ratna Award, 2024.*

- National Gopal Ratna Award is one of the highest National Awards in the field of livestock and dairy sector.
- The winners of the National Gopal Ratna Awards (NGRA) are declared by the Department of Animal Husbandry and Dairying (DAHD).
- The objective of the award is to recognize and encourage all individuals and organisation working in the sector of animal husbandry and dairying.
- The individuals and organisation include like Farmers rearing indigenous animals, AI Technicians and Dairy cooperative societies / Milk Producer Company / Dairy farmers Producers Organizations.

*Livestock sector is a crucial sector of the Indian economy, comprising one third of the agriculture and allied sector GVA and having over 8% CAGR.*

- The Award is conferred in 3 categories, which are:
  1. Best Dairy Farmer Rearing Indigenous Cattle/buffalo Breeds
  2. Best Artificial Insemination Technician (AIT)
  3. Best Dairy Cooperative/ Milk Producer Company/ Dairy Farmer Producer Organization
- From this year (2024) onwards, the Department has incorporated a Special award for North Eastern Region (NER) States, in all the three categories under the Awards, so as to encourage and boost the dairy development activities in NER.
- The Award consists of a cash prize, along with a Certificate of merit and memento.
- The Award consists of a cash prize of Rs. 5 lakh for 1st rank, Rs. 3 lakh for 2nd rank, Rs. 2 lakh for 3rd rank and Rs. 2 lakh for Special Award for North Eastern Region.

2. c

### Commission for Air Quality Management (CAQM)

*Recently the Supreme Court has questioned the Commission for Air Quality Management (CAQM) due to its inadequate pollution control response in Delhi*

- Commission for Air Quality Management (CAQM) the government's monitoring agency, on its inadequate pollution control response.
- CAQM in the National Capital Region (NCR) and adjoining areas came into existence through an ordinance in 2020, which was later replaced by an Act of Parliament in 2021.
- It replaced the EPCA (Environmental Pollution (Prevention and Control) Authority), which was formed in 1998 by the Supreme Court.
- CAQM was established under the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021.
- The Act gives CAQM the power to take all measures, issue directions and entertain complaints, as it deems necessary, for the purpose of protecting and improving the quality of air in the NCR and adjoining areas.
- Under Section 14 of the Act, the CAQM can initiate stringent actions against officers for not following its orders.
- *Core Powers and Mandates of the CAQM* include:
  - Issue binding directions for air quality improvement
  - Take necessary measures for pollution control
  - Entertain complaints
  - Initiate action against non-compliant officers (Section 14)
  - Implement Graded Response Action Plan (GRAP)
- **Key Challenges:**
- **Systemic Issues** – Gap between directive authority and implementation.
- While CAQM can issue orders, ground implementation depends on various agencies.
- Lack of effective enforcement mechanisms despite statutory powers
- **Reactive vs. Proactive Approach** – Supreme Court criticism of delayed GRAP Stage IV implementation.

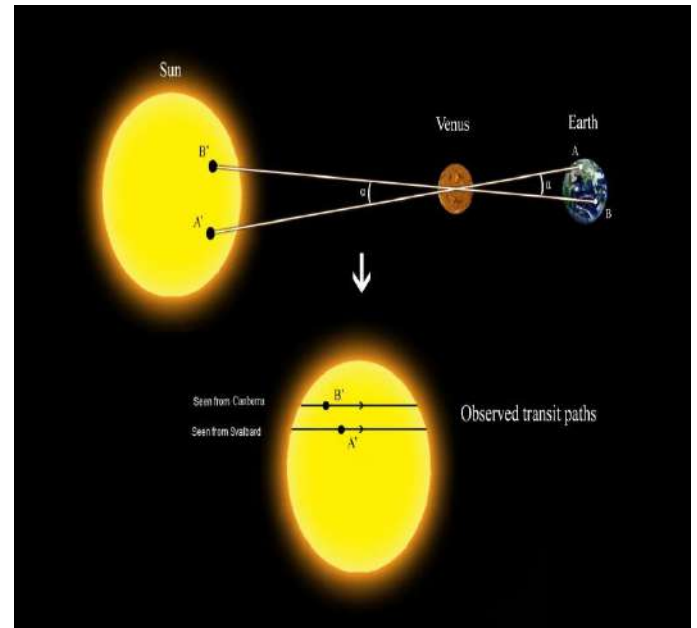


- Waiting for air quality deterioration rather than preventive action.
- Need for more accurate pollution forecasting methods.
- **Focus Imbalance** – Historical overemphasis on stubble burning.
- Insufficient attention to other pollution sources (dust, vehicles).
- **Coordination Challenges** – Multiple stakeholders across states
- Complex inter-agency dependencies
- Need for better ground-level action enabling
- **Enforcement Weaknesses** – Non-compliance with CAQM directions.
- Inadequate use of statutory powers against officers.
- Limited translation of efforts into tangible pollution reduction.

3. c

### Transit of Venus

- Transit of Venus is a rare astronomical event that occurs when Venus passes between the Earth and the sun.
- Venus appears as a small black circle that moves across the face of the sun during the transit of Venus.
- Even though **it is much bigger than our moon**, it appears as a dot and doesn't cause an eclipse like our moon does as it is much farther away from our Earth.
- The transit of Venus **occurs in pairs periodically**.
- After a pair **occurs eight years apart** around December, there's a **gap of 121.5 years before the next pair occurs**.
- This pair, which takes place eight years apart around the month of June, is then followed by a gap of 105.5 years, before the pair of Venus transits in December takes place again.
- The 243-year cycle (8+121.5+8+105.5) keeps repeating itself, with the dates advancing just by a couple of days.
- Studying Venus transits helps scientists better understand the atmosphere of our neighbouring planet and also learn more about the elements that layer above its surface.



4. c

### International Cooperative Alliance (ICA)

*The Global Conference of the International Cooperative Alliance (ICA) is to be held in New Delhi, India from 25 to 30 November 2024.*

- The International Cooperative Alliance (ICA) is the global organization that unites, represents and serves cooperatives around the world.
- It was founded in **1895**, London, England during the 1st Cooperative Congress it is one of the oldest and largest non-governmental organizations, representing 1 billion cooperative members globally.
- It is the leading voice for cooperatives, advocating for their interests and supporting the sharing of expertise across the sector.
- The International Cooperative Alliance (ICA) has over **306 member organizations across 105 countries**.
- The International Co-operative Alliance (ICA) **first expanded into the Asia-Pacific region** with the establishment of the Regional Office & Education Centre for South-East Asia in **1960**.
- **Governance Structure of ICA-Asia Pacific (ICA-AP)** – It operates within the larger framework of ICA's global governance structure.
- **Regional Assembly** – Is the highest policy body, where all ICA member organizations participate.
- It is responsible for guiding the regional office and discussing regional and global issues,

making recommendations to the ICA General Assembly.

- **Regional Board** – It supports the implementation of policies and decisions made by the Regional Assembly, ensuring that ICA-AP's goals are effectively pursued.
- **Sectoral and Thematic Committees** – These committees focus on specific areas such as agriculture, finance, housing, and sustainable development.
- Their work is central to addressing regional needs and promoting cooperative solutions.
- India's participation in these bodies has ensured that its interests are well-represented and that it continues to lead efforts in shaping the cooperative movement in the region.
- **Global Conference of the International Cooperative Alliance (ICA)** – Is to be held in New Delhi, India from 25 to 30 November 2024.
- An important ICA General Assembly will also be held, as well as meetings of ICA's Sectoral Organisations, Regional Offices and Thematic Committees.
- This event will be **hosted by the Indian Farmers Fertilizer Cooperative (IFFCO)** who has been a member of the ICA since 1980, and the 18 ICA member organizations in India representing close to 800,000 cooperatives and 290 million co-operators.
- The conference **theme** is "*Cooperatives Build Prosperity for All*" where there will be four plenary sessions, each accompanied by four parallel sessions, to create an Action Agenda for Cooperatives to accelerate the SDGs.

5.c

### Dendrites

*Scientists have detected a first-of-its-kind signal in human brain that focuses on receiving and transmitting signals in Dendrites.*

- Dendrites are branch-like extensions of a neuron (nerve cell) that act as its main receiving structures.
- Their primary job is to collect signals from other neurons and pass them to the neuron's main body, called the **soma**, for processing.
- **New findings** – Researchers have for the first time uncovered a unique type of electrical signal in the human brain, offering fresh

insights into how our brains process information.

- The discovery focuses on branch-like structures in neurons that are crucial for receiving and transmitting signals.
- Until now, most of what scientists knew about the electrical activity of dendrites.
- However, researchers recently examined layer 2/3 (L2/3) pyramidal neurons from human brain tissue, specifically from the cerebral cortex, which plays a key role in advanced thinking and problem-solving.
- The study revealed a previously unknown class of electrical signals, called **calcium-mediated dendritic action potentials (dCaAPs)**.
- Unlike the typical "all-or-none" signals seen in neurons, these dCaAPs showed a "graded" response.
- These dendritic signals allow individual neurons to solve problems that scientists previously thought required entire networks of brain cells.
- Essentially, a single neuron can classify inputs that are traditionally seen as too complex for one cell to handle, redefining our understanding of brain computation.
- This finding challenges long-held beliefs about how neural networks function and highlights the sophistication of the human brain compared to that of other animals.
- The researchers suggest that these unique dendritic properties may be one of the factors that set the human brain apart, contributing to our advanced cognitive abilities.
- The study not only deepens our understanding of human brain function but also opens new avenues for exploring neurological disorders and potential treatments.
- By understanding how these unique signals work, scientists could gain valuable insights into conditions where brain computation goes awry.

**26-11-2024**

1) Consider the following statements with respect to One Nation One Subscription (ONOS)

1. It is a Centrally Sponsored Scheme for providing country-wide access to scholarly research articles and journal publication.

2. It is coordinated by the 'Information and Library Network', an autonomous inter-university centre of the University Grants Commission (UGC)
3. It covers the government, higher education institutions and R&D laboratories of the central government.

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 Guru Tegh Bahadur

1. He was 9th guru of the Sikhs, who was executed on the orders of Aurangzeb in 1675.
2. He defended Kashmiri Pandits' right to practice their religion.

Which of the statements given above is/are correct?

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

3) Consider the following statements with respect to Fintech Association for Consumer Empowerment (FACE)

1. It is the first self-regulating organisation in the fin-tech sector recognised by the Reserve Bank of India.
2. It was established as a non-profit company in 2020.
3. Fin-Techs collaborate on the FACE platform to advance digitalisation, consumer-centricity, innovation and financial inclusion.

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 UN Women

1. It is the United Nations entity dedicated to gender equality and the empowerment of women.
2. The Femicides in 2023 report is an initiative of UN Women and the United Nations Office on Drugs and Crime (UNODC).

Which of the statements given above is/are correct?

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

5) Hindon River, sometimes seen in the news recently, is a tributary of?

- a. Yamuna River
- b. Ganga River
- c. Mahanadi River
- d. Damodar River

### Answers

1. b

### One Nation One Subscription (ONOS)

- One Nation One Subscription, is a **Central Sector Scheme** for providing country-wide access to scholarly research articles and journal publication.
- The scheme will be administered through a simple, user friendly and *fully digital process*.
- This will be a "One Nation One Subscription" facility for the government higher education institutions and R&D laboratories of the central government.
- This will supplement the ANRF initiative to promote research and development and foster a culture of research and innovation throughout government universities, colleges, research institutions, and R&D laboratories.
- The scheme is **coordinated by a central agency, namely the Information and Library Network (INFLIBNET)**, an autonomous inter-university centre of the University Grants Commission (UGC).

- The scheme covers Over 6,300 institutions.

2. c

### Guru Tegh Bahadur

*November 24 is commemorated as the Shaheedi Divas of Guru Tegh Bahadur, the ninth guru of the Sikhs, who was executed on the orders of Aurangzeb in 1675.*

- Tegh Bahadur was born in Amritsar on **April 21, 1621** to Mata Nanki and Guru Hargobind, the sixth Sikh guru, who raised an army against the Mughals and introduced the concept of warrior saints.
- Guru Tegh Bahadur had built a 'bhora' (basement) in his house at Bakala where he spent most of his time in meditation.
- He was married to Mata Gujri at Kartarpur in 1632, and subsequently left for Bakala near Amritsar.
- *After Guru Ram Das, the fourth Sikh guru, the guruship became hereditary.*
- Guru Tegh Bahadur was executed on the orders of Aurangzeb in 1675.
- At the site of Guru Tegh Bahadur's execution stands Gurdwara Sis Ganj Sahib in Delhi's Chandni Chowk.
- **Philosophical Contributions** – Advocated universal brotherhood by fighting against the religious discrimination, caste-based discrimination and untouchability.
- He believed religion is a duty, not just a belief system.
- He promoted the principle of "Vasudhaiv Kutumbkam" (world is one family).
- **Spiritual Characteristics** – Remained calm and meditative even during torture.
- He emphasized non-violence and taught importance of maintaining principles in both happiness and sorrow.
- He composed spiritual hymns (shabads).
- **Cultural Impact** – Considered a pivotal figure in preserving religious diversity.
- Inspired future generations of Sikhs and Indians.
- His sacrifice is seen as a watershed moment in India's cultural resistance.

3. c

### Fintech Association for Consumer Empowerment (FACE)

- Fintech Association for Consumer Empowerment (FACE) is the first self-regulating organisation in the fin-tech sector recognised by the Reserve Bank of India.
- It was established as a **non-profit Company** in Sep 2020, with currently around 70 members, representing the plurality of the FinTech sector across domains, scale, activities and regulatory status.
- FinTechs collaborate on the FACE platform to advance digitalisation, consumer-centricity, innovation, and financial inclusion.
- **Governance structure** – It has a two-tier governance structure that include:
  1. General Body
  2. Board
- **General Body** – It consists of all members and carries the responsibility for the overall vision and purpose of the FACE.
- The General Body is the custodian of the Article of Association that rules that govern all aspects of the Association.
- It exercises powers over the Board constitution, activity plans and financials.
- **Board** – The management and oversight of the operations and funds vests with the Board of Directors, which shall comprise not less than two (2) or more than fifteen (15) individuals, one of whom shall be the Chairperson.
- The General Body elects the Member Directors from amongst members and confirms the appointment of Independent Directors as approved by the Board.

4. c

### UN Women

- UN Women is the *United Nations entity* dedicated to gender equality and the empowerment of women which was created in *July 2010*.
- It is a global champion for women and girls, UN Women was established to accelerate progress on meeting their needs worldwide.
- UN Women supports UN Member States as they set global standards for achieving gender equality and works with governments and civil society.



- It aids to design laws, policies, programmes and services needed to ensure that the standards are effectively implemented and truly benefit women and girls worldwide.
- *The Femicides in 2023: Global Estimates of Intimate Partner/Family Member Femicides report*, is released by UN Women and the United Nations Office on Drugs and Crime (UNODC).
- The report is released on the International Day for the Elimination of Violence against Women (November 25).
- The report underscored the severity of the global crisis of femicide, the most extreme form of violence against women and girls.

5. a

### Hindon River

- The Hindon runs through 7 districts of Uttar Pradesh before joining the Yamuna in Gautam Buddha Nagar district.
- It is a **tributary of the Yamuna River** and is primarily a rain fed river.
- It originates from the lower Shivalik ranges in Saharanpur District of Uttar Pradesh.
- It flows across the industrial belt of Western Uttar Pradesh for 400 kilometres before discharging into the Yamuna River in Noida.
- **Tributaries** – The *Kali (West) River* and *Krishni River* are the main tributaries of Hindon River.
- Due to urban, agricultural, and industrial waste which is being released without sufficient treatment into its waters, the Hindon is now one of the most polluted stretches in the Ganga basin.
- **Issues** – Factories in near the river release effluents into the river, especially during the rains, which contaminate the groundwater that we rely on for drinking and for all our domestic needs.

**27-11-2024**

1) Consider the following statements with respect to Reang Tribe

1. They are the second largest tribal community of Tripura.
2. They are recognized as one of the 75 primitive tribes in India.
3. They belong to Indo-Mongoloid racial stock.

4. Their language is known as “Kaubru”.

How many of the statements given above are correct?

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

2) Consider the following statements with respect to Permanent Account Number (PAN) 2.0 Project

1. It aims to streamline and modernise the process of issuing and managing PAN.
2. Currently, PAN-related services are spread across only one platform.

Which of the statements given above is/are correct?

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

3) Consider the following statements with respect to Surface Hydrokinetic Turbine (SHKT) Technology

1. Unlike conventional units, SHKT uses kinetic energy of flowing water with practically zero potential head for generation of electrical energy.
2. It eliminates the need for creating artificial water heads through dams, weirs or barrages.

Which of the statements given above is/are correct?

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

4) Consider the following statements with respect to Design Law Treaty

1. It seeks to harmonise procedures and simplify registration processes of industrial designs in different countries.
2. The treaty was recently signed by the India.

Which of the statements given above is/are correct?

- a. 1 only

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

5) Consider the following statements with respect to Dunlin

1. They are a circumpolar breeder around the Arctic and sub-Arctic regions.
2. It is listed as 'Near Threatened' in the Red List of the International Union for Conservation of Nature.
3. It can be found in large flocks on mudflats and beaches.

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. d

### Reang Tribe

The ethnic Reang community has demanded to Tripura government to declare a holiday on Hojagiri Day, which celebrates the traditional Hojagiri dance.

- Reang are the *second largest tribal community of Tripura*.
- They are recognized as one of the 75 primitive tribes in India.
- As per 2011 Census, there are 1,88,220 persons in this State.
- Reangs are said to have come first from Shan State of upper Burma (now Myanmar) in different waves to the Chittagang Hill Tracts and then to Southern part of Tripura.
- Similarly another group entered Tripura via Assam and Mizoram during 18th Century.
- **Reangs belongs to Indo-Mongoloid racial stock.**
- Ethnically Reangs are divided into 2 major clans such as Meska and Molsoi.
- Their language is known as "**Kaubru**" which have a tonal effect of Kuki language though broadly it is Kok-Borok dialect.

- Their languages has *affinity of Austro-Asiatic groups* under Tibeto-Burman family.
- Reangs are still a nomadic tribe and a large numbers among them maintain their livelihood involving Hilltop Jhum Cultivation.
- Reangs have faith on different deities like Buraha, Bonirao, Songragma, Jampira, Lampra and so on.
- There are also some female deities like Mwtaikotorma, Tuibuma, Mailoma, Ganga etc.
- Reangs *believe in spirits and existence of soul*.
- By religion they are Hindus and most of their deities are akin to gods and goddesses of Hindu faith.
- Among Reangs followers of Vaishnavism are found in good numbers.
- *Reangs traditionally are endogamous and do not marry outside their community*.
- The village council chief is known as "RAI" permits divorce and widow marriage.
- They cremate their dead bedside a river or chara after observing series of rites and rituals and funeral procession.
- Reangs' folk life & culture have outstanding cultural components.
- **Hozagiri dance** with melodious tune of flute is most attractive throughout the country and abroad.

2. a

### Permanent Account Number (PAN) 2.0 Project

The Cabinet Committee on Economic Affairs (CCEA) has recently approved the Income Tax Department's Permanent Account Number (PAN) 2.0 Project.

- Permanent Account Number (PAN) 2.0 Project is an e-Governance **project of Income Tax Department** for re-engineering the business processes of taxpayer registration services.
- The Project *aims to streamline and modernise the process of issuing and managing PAN and TAN*, making it more user-friendly and efficient.
- With existing PAN database of 78 crore PANs and 73.28 lakh TANs, the project addresses the requirements of taxpayers, focusing on consolidation of multiple platforms/portals and efficient services to PAN/ TAN holders.

- **Currently, PAN-related services are spread across 3 different platforms**, that include:

1. e-Filing Portal
2. UTIITSL Portal
3. Protean e-Gov Portal

- With the implementation of PAN 2.0, *all these services will be integrated into a single, unified portal.*

- This one-stop platform will handle comprehensively issues/matters related to PAN and TAN, including application, updates, corrections, Aadhaar-PAN linking, re-issuance requests.

- **Key features of PAN 2.0:**

- A single portal for all PAN/TAN-related services to simplify access for users.
- Eco-friendly paperless processes to reduce paperwork.
- PAN will be issued free of cost, with quicker processing times.
- Personal and demographic data will be protected through enhanced security measures, including a PAN Data Vault.
- A dedicated call centre and helpdesk to address user queries and issues.

- *The existing PAN card holders are not required to apply for new PAN under the upgraded system (PAN 2.0).*

3. c

### **Surface Hydrokinetic Turbine (SHKT) Technology**

*Recently, the Central Electricity Authority (CEA) has officially recognized SHKT technology under the Hydro Category.*

- Surface Hydrokinetic Turbine (SHKT) Technology is aimed at driving innovation and supporting India's net zero emission targets.
- **Unique Technological Characteristics:**
  - Unlike conventional hydroelectric systems, **SHKT uses kinetic energy from flowing water.**
  - It operates with practically zero potential head (no need for dams or large civil structures).

- It eliminates the need for creating artificial water heads through dams, weirs or barrages.

- **Advantages – It is cost-Effective** with generation cost being 2-3 rupees per unit.

- Easy Installation and suitable for areas with poor grid accessibility.

- It provides base-load, round-the-clock renewable energy.

- **Potential Applications** – It utilizing existing water infrastructure like canals.

- Hydropower tailrace channels.

- Potential for large-scale (GW) renewable energy generation.

- **Strategic Significance** – It supports sustainable development in the power sector.

- Offers a win-win solution for both energy buyers and generators.

- Contributes to India's renewable energy expansion and net zero emission goals.

- This technology represents an innovative approach to hydroelectric power generation, making renewable energy more accessible and economically viable by leveraging existing water flow without extensive infrastructure requirements.

4. c

### **Riyadh Design Law Treaty/Design Law Treaty**

*Design Law Treaty was recently adopted by the member states of the World Intellectual Property Organization (WIPO).*

- Design Law Treaty aims to harmonize industrial design registration procedures internationally.

- **Key objectives** – Harmonization of design registration procedures.

- To reduce administrative burdens and make design protection more accessible.

- To support small and medium enterprises (SMEs) and start-ups.

- **Key Provisions** – Relaxed application time limits and option to reinstate lost rights.

- Ability to correct priority claims and simplified assignment and license procedures.

- Possibility to file multiple designs in one application and encouragement of electronic design systems.
- **India** – India has recently **signed the final act of the Riyadh Design Law Treaty**.
- Design registrations have tripled in the last decade.
- Domestic design filings increased by 120% in two years.
- 25% growth in design applications last year.
- **Strategic Benefits** – Supports innovation and reduces barriers for startups and independent designers.
- Enhances global competitiveness and aligns with initiatives like Startup India and Startups Intellectual Property Protection (SIPP) scheme.

5. c

### Dunlin (*Calidris alpina*)

- Dunlin (*Calidris alpina*) is one of the most common and sociable birds of the sandpiper group.
- It is a member of the family Scolopacidae (order Charadriiformes).
- Dunlin (*Calidris alpina*) are *migratory wading birds*.
- **Dunlin are a circumpolar breeder around the Arctic and sub-Arctic regions** and during the winter months can be found throughout Europe, Africa, the Middle East and south-east Asia.
- They *predominantly breed in Scotland but are also found in parts of England and Wales*.
- It is listed as 'Near Threatened' in the Red List of the International Union for Conservation of Nature.
- It can be found in large flocks on mudflats and beaches.



**28-11-2024**

1) Consider the following statements with respect to Indian Chemical Council

1. It is a pre-independent, apex national body organisation which is dedicated to the growth of the Indian Chemical Industry.
2. It is the national authority responsible for implementing the Chemical Weapons Convention (CWC) in India.
3. It was conferred with 'Organisation for the Prohibition of Chemical Weapons (OPCW)-the Hague Award', 2024.

Select the correct answer using the code given below:

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

2) Consider the following statements with respect to Network Readiness Index, 2024 (NRI 2024)

1. It ranks a total of 133 economies that collectively account for 95% of global gross domestic product (GDP).
2. It is released by the World Economic Forum.
3. India is placed at 49th rank in the NRI, 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

### Indian Chemical Council

*The Indian Chemical Council (ICC) was recently conferred with Organisation for the Prohibition of Chemical Weapons (OPCW)-the Hague Award, 2024.*

- Indian Chemical Council (ICC) is the *apex national body representing all branches of the Chemical Industry in India* such as Organic & Inorganic Chemicals, Plastics & Petrochemicals & Petroleum Refineries, Dye-stuffs and Dye-intermediates and so on.
- The Indian Chemical Council is dedicated to the growth of the Indian Chemical Industry.
- ***It was established in 1938 (pre-independent organisation).***
- ICC represents *more than 80% of Indian chemical Industry* which is valued at USD 220 billion.
- The ICC is well represented by senior executives from a wide range of global and local chemical companies.
- ***The ICC Annual Awards*** given under various categories are prized by the industry and recognize outstanding achievement by the company or persons among their peers in the industry.
- ***National Authority Chemical Weapons Convention (NACWC)*** is the national authority responsible for implementing the Chemical Weapons Convention (CWC) in India. **(Statement 2 is correct)**
- ***Organisation for the Prohibition of Chemical Weapons (OPCW)*** – Is the implementing body for the Chemical Weapons Convention (CWC), which entered into force on 29 April 1997.
- There are 193 Member States that oversees the global endeavour to permanently and verifiably eliminate chemical weapons.
- ***India is a signatory to CWC convention.***
- The ***Nobel Prize for Peace for the year 2013*** was awarded this organisation.
- The OPCW-The Hague Award Fund was created using the nearly 900,000 euros monetary prize accompanying the 2013 Nobel Peace Prize awarded to the OPCW.

3) Consider the following statements with respect to the Universal Service Obligation (USO) Fund

1. It is mandated to support universal service through promoting access and delivery of telecommunication service in underserved rural, remote and urban areas.
2. The Indian Telegraph (Amendment) Act, 2003 provided the statutory status to the Universal Service Obligation Fund (USOF).
3. It is headed by the Administrator who is appointed by the Union Government.

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 India Post Payments Bank (IPPB)

1. It is the only payments bank set up under Department of Posts.
2. Services such as Virtual Debit Card and bill and utility payments can be availed under the bank.

Which of the statements given above is/are correct?

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

5) E-Daakhil Portal, sometimes seen in the news recently, is associated with?

- a. A platform designed to streamline the consumer grievance redressal process.
- b. A transformative approach involves promoting internships at the school and college levels within institutions.
- c. To improve groundwater regulation, ensuring transparency, efficiency, and sustainability in groundwater usage.
- d. A platform for every citizen to conveniently report drug-related matters 24x7.

- **The 2024 OPCW The Hague Award was conferred upon the Indian Chemical Council (ICC).**
- The fund is supplemented by contributions from the City of The Hague.
- **National Authority Chemical Weapons Convention (NACWC)** – It was established under the Chemical Weapons Convention Act, 2000.
- It was set up to implement the provisions of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction.
- NACWC is an office in the Cabinet Secretariat, Government of India.
- **NACWC is the national authority responsible for implementing the Convention in India.**

2. b

#### Network Readiness Index, 2024 (NRI 2024)

- The Network Readiness Index 2024 ranks a total of 133 economies that collectively account for 95% of global gross domestic product (GDP).
- The report is **published by the Portulans Institute**, an independent non-profit research and educational institute based in Washington DC. (**Statement 2 is incorrect**)
- The index is based on their performances in 4 different pillars covering a total of 54 variables. The 4 pillars are:
  1. Technology
  2. People
  3. Governance
  4. Impact
- In NRI 2024, the **United States and Singapore** have maintained their lead positions at **1st and 2nd place**.
- The rankings highlight the ongoing leadership of high-income economies while also acknowledging progress among emerging markets in network readiness.
- **India – India is placed at 49th rank in the NRI, 2024.**
- India has not only improved its ranking, but also improved its score from 49.93 in 2023 to 53.63 in 2024.

- India leads in several indicators that include AI talent concentration, ICT services exports, Building Internet subscriptions, International Internet bandwidth and Domestic market scale.
- India has ranked 2nd in the group of lower-middle-income countries after Vietnam.

3. c

#### Digital Bharat Nidhi

- Digital Bharat Nidhi which was formerly known as Universal Service Obligation Fund (USOF).
- The concept of 'Universal Service Obligation' was **introduced by Rowland Hill** in 1837 with his postal reforms.
- The postal reforms included uniform rates across the United Kingdoms (UK) and prepayment by sender via postage stamps.
- Universal Service was the key objective of the Universal Postal Union.
- In India, the **New Telecom Policy, 1999** provided that the *resources for meeting the Universal Service Obligation (USO)* would be raised through a 'Universal Access Levy' (UAL).
- The Universal Service Support Policy for provision of telecom facilities in rural and remote areas of the country came into effect from 2002.
- **The Indian Telegraph (Amendment) Act, 2003 provided statutory status to the Universal Service Obligation Fund (USOF)**, was passed by the parliament in December 2003.
- The rules for administration of the fund known as Indian Telegraph (Amendment) Rules, 2004 were notified on 26.03.2004.
- As per the Indian Telegraph Act 1885 (as amended in 2003 and 2006), the fund is to be utilised exclusively for meeting the Universal Service Obligation.
- As per '**The Telecommunications Act, 2023 the Universal Service Obligation Fund, has become the Digital Bharat Nidhi (DBN)**.
- The Universal Service Obligation (USO) Fund is **headed by the Administrator**, USO Fund who is appointed by the Central Government, for the administration of the fund.
- It is an *attached office of the Department of Telecommunications (DoT), Ministry of Communications*.

- BharatNet project is one of the flagship schemes of the Government of India, was launched to provide broadband connectivity to 2.5 lakhs Gram Panchayats in the country.
- In order to achieve objectives of DBN, it covers various schemes and projects including BharatNet, 4G Saturation Project and Provision of Mobile Service in uncovered areas of Aspirational Districts.
- It also include schemes in Mobile Services in Left Wing Extremist Areas, Mobile Services in Himalayan and Border areas, mobile Services in Islands and so on.

4. c

### India Post Payments Bank (IPPB)

- India Post Payments Bank (IPPB) was setup under the Department of Post, Ministry of Communication with *100% equity owned by Government of India*.
- India Post Payments Bank (IPPB) is the **only payments bank set up under Department of Posts**.
- IPPB was launched as a pilot project on 30 January 2017 in Ranchi (Jharkhand) and Raipur (Chhattisgarh), with the objective of being present across India by the FY 2018-2019.
- IPPB has expanded its strength across India covering post offices, through a network one Branch and 649 Banking outlets manned by Business Correspondents, working on a hub and spoke model.
- The services offered by the India Post Payments Bank (IPPB) are:

DEPOSITS	•Savings Account •Current Account
MONEY TRANSFER	•Simple & Secure •Instant & 24x7
DIRECT BENEFITS TRANSFERS	•MGNREGA •Scholarships •Social welfare benefits and other Government subsidies
THIRD PARTY PRODUCTS	•Loans •Insurance •Investments •Post Office Savings schemes
ENTERPRISE AND MERCHANT PAYMENTS	•Mobile and DTH recharge •Electricity, water & gas bills •Donations & insurance premiums
BILL & UTILITY PAYMENTS	•Postal products •Digital Payment of e-commerce delivery(CoD) •Small merchants/kirana stores/unorganized retail •Offline payments •Cash Management Services

5. a

### E-Daakhil Portal

*E-Daakhil portal has recently operational in every state and union territory of India.*

- The e-Daakhil portal was first **launched on by the National Consumer Dispute Redressal Commission** in September 2020.
- The portal was introduced as inexpensive, speedy and hassle-free mechanism for filing consumer complaints.
- E-Daakhil is an innovative online platform designed to streamline the consumer grievance redressal process, providing an efficient and convenient way for consumers
- It serves as a consumer forum, dispensing the need to travel and be physically present to file their grievances.
- Since its inception, E-Daakhil has been a game-changer in promoting consumer rights and ensuring timely justice.
- E-Daakhil was recently across all states and union territories of India by the Department of Consumer Affairs, Ministry of Consumer Affairs, Food and Public Distribution.

**29-11-2024**

1) Consider the following statements with respect to the Dharti Aba Janjati Gram Utkarsh Abhiyan

1. It aims to eliminate critical gaps in social infrastructure, health, education, livelihoods

and ensure holistic and sustainable development of tribal areas and communities.

2. It will focus on 25 schemes and initiatives implemented by 17 Ministries of Government of India with convergence and outreach.

Which of the statements given above is/are correct?

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

2) Analakhya, sometimes seen in the news recently, is associated with?

- a. A system that has crucial role in the Advanced Medium Combat Aircraft (AMCA) of DRDO.
- b. Use of Artificial Intelligence (AI) language technology in translation of judicial documents.
- c. A platform for the first ever tranche of auction of Mineral Blocks in the Offshore Areas.
- d. A scheme to promote the global tourism market including spiritual destinations of India.

3) Consider the following statements with respect to Jarawa Tribe

1. They are inhabitants of the western coast of Middle Andaman and the South Andaman Islands.
2. Unlike Onges and Andamanese, Jarawas do not use dogs for hunting.
3. Under article 325, no person including tribes are excluded from the Electoral rolls on account of religion, race, caste sex or any of them.

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 Alliance of Small Island States (AOSIS)

1. It is an intergovernmental organization which was established in 1990 during the Second World Climate Conference in Geneva.
2. It plays an integral role in carrying out advocacy for small island states and influencing international environmental policy.

Which of the statements given above is/are correct?

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

5) Consider the following statements with respect to EKLAVYA

1. It is an online digital platform for training the Army officers.
2. The Eklavya software platform has been developed under the aegis of Headquarters Army Training Command with Army War College as the sponsor agency.

Which of the statements given above is/are correct?

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

## Answers

1. c

### Dharti Aba Janjati Gram Utkarsh Abhiyan

- Dharti Aba Janjati Gram Utkarsh Abhiyan was launched on 2nd October 2024, on the birth anniversary of Mahatma Gandhi.
- It is built on learnings from PM-JANMAN scheme that was launched in November 2023.
- **Objectives** – To eliminate critical gaps in social infrastructure, health, education and livelihoods.
- To ensure holistic and sustainable development of tribal areas and communities.
- To provide quality education to approximately 3.5 lakh tribal students.
- **Implementation** – It is implemented through 25 schemes, initiatives and



coordinated efforts of 17 Government of India Ministries.

- **Features of the scheme:**
- **Villages Covered** – 63,843 villages.
- **Beneficiaries** – Over 5 crore tribal people.
- **Geographical Spread** – 549 districts and 2,911 blocks across 30 States/UTs.
- **Educational Infrastructure** – 40 new Eklavya Vidyalayas inaugurated and foundation stone laid for 25 new schools.

2. a

### Analakhya

*The Indian Institute of Technology Kanpur (IIT-K) recently announced a significant advancement in stealth technology and named it as Analakhya that could render combat systems.*

- Analakhya is a meta-material surface cloaking system (MSCS) which is designed to revolutionize stealth technology for defense and security applications.
- It is **developed by the Indian Institute of Technology Kanpur (IIT-K)**.
- MSCS is expected to play a crucial role in the DRDO's development of the *Advanced Medium Combat Aircraft (AMCA)*, an indigenous stealth fighter being designed to evade enemy air defence radars.
- The system is currently under acquisition by the Indian armed forces, signalling its strategic importance to national security.
- **Over 90%** of the material for the *Analakhya* MSCS is **sourced indigenously**.
- This Stealth technology employs *two key mechanisms to evade enemy radar detection*.
- The first involves designing external surfaces with small jagged panels that disperse radar waves, in contrast to flat surfaces that reflect signals back to enemy radar systems.
- The second mechanism focuses on surface composition.
- Unlike flat, metallic surfaces that reflect radar waves and facilitate detection, absorptive surfaces capture a significant portion of synthetic aperture radar (SAR) waves, reducing visibility.

3. c

### Jarawa Tribe

*For the first time in the history of India's election process, 19 members from Jarawa Tribe in Andaman and Nicobar Islands had been included on the electoral roll of the special summary revision-2025.*

- The Jarawas are inhabiting presently the *Western coast of Middle Andaman and South Andaman Islands*.
- They are hostile and, at times, enter into areas where the Bengali and other people have been settled by the Government.
- The Andaman & Nicobar Administration have started the Contact Expeditions periodically to Jarawas to befriend them.
- The first friendly contact was made in 1974 and since then the Jarawas are not hostile to the Contact Team which go with gifts like Coconut, Banana and other fruits.
- Jarawas continue to be hunting and gathering nomadic tribe.
- They hunt wild pigs, monitor lizard with bows and arrows.
- **Unlike Onges and Andamanese, Jarawas do not use dogs for hunting.**
- The population of Jarawas is 240 as per the census 2001.
- **Article 325** – It states that there shall be one general electoral roll for every territorial constituency for election to either House of Parliament or to the House or either House of the Legislature of a State.
- It also stated that **no person would be excluded from the rolls on account of religion, race, caste, sex or any of them.**

4. c

### Alliance of Small Island States (AOSIS)

- The Alliance of Small Island States (AOSIS) is an intergovernmental organization which was **established in 1990** during the Second World Climate Conference in Geneva.
- AOSIS plays an integral role in carrying out advocacy for small island states and influencing international environmental policy.
- A priority area of advocacy for AOSIS has been global climate change and its detrimental socio-economic and environmental effects on small island states.

- In this regard, the *Alliance has been closely linked with climate policy* and specifically with the United Nations Framework Convention on Climate Change (UNFCCC).
- **Small Island Developing States (SIDS)** are a distinct group of 39 States and 18 Associate Members of United Nations regional commissions that face unique social, economic and environmental vulnerabilities.
- SIDS were recognized as a special case both for their environment and development at the 1992 United Nations Conference on Environment and Development held in Rio de Janeiro, Brazil.
- **New Collective Quantified Goal (NCQG)** calls on all actors to work together to scale up financing to developing countries for climate action from all public and private sources to at least USD 1.3 trillion per year by 2035.
- It sets a goal of at **least USD 300 billion per year by 2035 for developing countries' climate action**.
- It is supported by developing country blocs, including Like-Minded Developing Countries (LMDC), **AOSIS**, Independent Alliance of Latin America and the Caribbean.

5. c

#### EKLAVYA

*Indian Army has recently launched 'EKLAVYA', an online digital platform for officers' training.*

- EKLAVYA is an online learning platform for the Indian Army.
- The Eklavya software platform has been developed under the aegis of **Headquarters Army Training Command with Army War College** as the sponsor agency.
- The platform has been developed at zero cost through "*Bhaskaracharya National Institute of Space Applications and Geoinformatics*" (BISAG-N) along with support from Directorate General of Information Systems.
- A total of 96 courses by 17 Category 'A' Training Establishments of the Indian Army have already been hosted on the platform.
- There are **3 categories of courses** hosted on the Eklavya platform.
- The **first category is the 'Pre-Course Preparatory Capsules'**, which has study material for all offline physical courses being

conducted at various Category 'A' training establishments.

- The aim is to shift the "basics" to the online courses so that physical courses have more and more contemporary content with a focus on the "application part".
- It will help to decongest the existing courses while generating time for adding emerging concepts as per the changing character of warfare.
- The **second category of courses are the "appointment or specific assignment-related courses"**.
- Officers on getting posted to some of the specialist appointments have to learn the craft by getting on-the-job training (OJT) and therefore, it takes a finite amount of time for them to function with full efficiency in those appointments.
- Some of such appointments are in the domain of information warfare, defence land management, financial planning, discipline and vigilance, works, provost, veteran affairs etc.
- The **third category of courses is the "Professional Development Suite"** to include courses on Strategy, Operational Art, Leadership, Organisational Behaviour, Finance, Art of Reading, Power Writing, Emerging Technology etc.