CA Revision Module - Test 36 - Full Test - V (From January 2023 - March 2024)

1. Consider the following statements with respect to Graphene

1. It is a single layer of carbon atoms arranged in a hexagonal lattice.
2. It is used in touch screens, light panels and solar cells.
3. Graphene-Aurora Program in India is implemented by the Ministry of Science and Technology.

How many of the statement(s) given above is/are correct?

a. Only one
b. Only two
c. All three
d. None

Answer : b

Graphene-Aurora Program

- The program ***aims to foster innovation of graphene technologies***.
- The program is launched by ***Ministry of Electronics & Information Technology (MeitY)***.
- The program shall be implemented by Digital University Kerala with joint funding from MeitY, Government of India and Government of Kerala and Industry partners.
- ***India Graphene Engineering and Innovation Centre (I-GEIC)*** is set up under the program.
- It shall fill the gap between R&D and commercialization by providing a complete facility to startup and industry.
- Creation of a commercialization eco-system for graphene as an emerging technology would help India take a pole position in the world's new material market.
- *India's first Graphene Centre, the India Innovation Centre for Graphene (IICG)*, is located at Maker Village in Kochi, Kerala

Graphene

- Graphene is a single layer of carbon atoms arranged in a ***hexagonal lattice***.
- It is often referred to as a wonder material for its extraordinary electrical and electronic properties.
- **Discovered by** - Andre Geim and Konstantin Novoselov, discovered in 2004.
- It is stronger than steel, very stretchable and can be used as a flexible conductor.
- Its thermal conductivity is much higher than that of silver.
- It is an ultimately thin, mechanically very strong, transparent and flexible conductor.
- **Applications -** Touch screens, light panels and solar cells.

2. Consider the following statements with respect to Indian Forest & Wood Certification Scheme

1. It aims to offer voluntary 3rd party certification to promote sustainable forest management and

agroforestry in the country.
2. The Scheme was launched by the Ministry of Commerce and Industry.
3. Indian Institute of Forest Management (IIFM) is the operating agency for the overall management of the scheme.
4. National Accreditation Board for Certification Bodies (NACB) will accredit the certification bodies.

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

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

Answer : c

Indian Forest & Wood Certification Scheme

India has launched its 1st Indian Forest and Wood certification scheme.

- **Launched by** – ***MoEFCC*** (Environment, Forest & Climate Change)
- **Aim** – To ***offer voluntary 3rd party certification*** to promote ***sustainable forest management and agroforestry*** in the country.
- To incentivise entities like State forest departments, individual farmers, or Farmer Producer Organizations, farm forestry and other wood-based industries in the value chain.
- *Certification Types*
  - Forest management (FM) certification
  - Tree outside forest management certification
  - Chain of custody (CoC) certification
- **Overseen by** – ***Indian Forest and Wood Certification Council***.
- **Operating agency** – ***Indian Institute of Forest Management (IIFM)*** in Bhopal, responsible for overall management.
- The ***National Accreditation Board for Certification Bodies*** under the Quality Council of India (QCI) ***will accredit the certification bodies***.
- **Certification bodies** – It will carry out independent audits and assess entities on their adherence to the prescribed standards.
- **Indian Forest and Wood Certification Council** – It is a multi-stakeholder advisory body.
- **Composition** – Representatives from Indian Council of Forestry Research and Education, FSI, QCI, IIFM, Union Ministry (Agriculture and Commerce), State Forest Departments, Forest Development Corporations and Wood-based industries.

3. *Essequibo region*, sometimes seen in the news recently, is a disputed region between?

a. Russia and Ukraine
b. Israel and Palestine
c. Somalia and Ethiopia
d. Guyana and Venezuela

Answer : d

Essequibo region

- Essequibo region is a 61,600-square-mile area located in the heart of the Guiana Shield, a geographical region in the northeast of South America.
- ***It is a disputed territory between Guyana and Venezuela***.

- It accounts for *two-thirds of Guyana*.
- The area is one of the *4 last pristine tropical forests in the world* and it has vast oil and mineral resources.
- Guyana is set to surpass the oil production of Venezuela, and by 2025, it would become the world's largest per-capita crude producer.
- 1899 arbitration demarcated their boundaries which was formally accepted in 1905 agreement.
- While Venezuela challenged the 1899 arbitration in 1962, the 1966 Geneva Agreement aimed at maintaining the status quo.
- **Recent contention** – Through referendum, Venezuelans approved the claim of sovereignty over Essequibo and were about to immediately begin exploration in the disputed region.
- **International response** – Guyana approached the International Court of Justice (ICJ) which refused to ban the referendum but urged Venezuela not to alter the status quo.



4. How many of the following countries are part of the *Five Eyes Alliance*?

1. United States
2. Australia
3. United Kingdom
4. France
5. Germany

Select the correct answer using the codes given below:

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

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Answer : b

Five Eyes Alliance

- Five Eyes refers to an intelligence-sharing alliance of the ***United States, United Kingdom, Australia, Canada and New Zealand***.
- **Origin** – The alliance originated during the *Second World War*.
- In 1943, the Britain-USA (BRUSA) agreement laid the foundations for what became the UK-USA (UKUSA) agreement, signed in 1946.



- Canada joined it in 1949, and New Zealand and Australia did so in 1956, forming the alliance.
- **Working** – The Five Eyes members use communications methods, including signals intelligence (SIGINT), to monitor the citizens of other member countries.
- ***SIGINT*** is intelligence derived from electronic signals and systems used by foreign targets, such as communications systems, radars, and weapons systems that provides a vital window for our nation into foreign adversaries' capabilities, actions, and intentions.
- In 2016, the Five Eyes Intelligence Oversight and Review Council came into being.

5. Consider the following statements with respect to Voter Verifiable Paper Audit Trail (VVPAT)

1. VVPAT is a device linked to the Electronic Voting Machine (EVM) that provides voters with feedback through a ballot-less voting system.
2. It features a transparent window, displaying the Name, Serial number and Election symbol for 7

seconds to the voter.

3. VVPATs were first used in 1982 in the by-election to the North Paravur Assembly constituency in Kerala.

How many of the statement(s) given above is/are correct?

a. Only one
b. Only two
c. All three
d. None

Answer : b

Voter verifiable paper audit trail (VVPATs)

Recently the Election Commission of India (ECI) mandates the counting of all VVPAT slips in 5 randomly selected polling stations per Assembly constituency or segment in the upcoming 2024 Lok Sabha election.

- VVPAT is a machine that is attached to the ballot unit (BU) Electronic Voting Machine (EVM) that provides feedback to voters using a ballot less voting system.
- It is also called as *verifiable paper record (VPR)*.
- When a vote is cast, a slip is printed containing the ***serial number, name and symbol of the candidate*** and remains exposed through a transparent window ***for 7 seconds***.
- Thereafter, this printed slip automatically gets cut and falls in the sealed drop box of the VVPAT.
- *VVPAT runs on a power pack Battery.*
- It was used for the ***first time*** in all 21 polling stations of the Noksen Assembly constituency of ***Nagaland in 2013***.
- The 2019 Lok Sabha elections became the first general election to have 100% of EVMs being attached to VVPATs.

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6. *"The Global Fund"* is a worldwide movement to defeat which of the following diseases?

1. Malaria
2. Tuberculosis
3. Human Papilloma Virus
4. Human Immunodeficiency Virus

Select the correct answer using the codes given below:

a. 1, 2 and 3 only
b. 1, 2 and 4 only
c. 1, 3 and 4 only
d. 2, 3 and 4 only

Answer : b

The Global Fund

- ***The Global Fund is a worldwide movement to defeat HIV, TB and Malaria*** and ensure a healthier, safer, more equitable future for all.
- The Global Fund pools the world's resources to invest in ending AIDS, tuberculosis and malaria as epidemics.
- ***It is a partnership of governments, civil society, technical agencies, the private sector***

and people affected by the diseases.

- The Global Fund raises funds on a ***3 year cycle***, bringing longer term predictability in the fight against AIDS, TB and malaria.
- The fund provides the advanced pill known as TLD for under 45 USD per person per year.

7. India has decided to scrap the *Free Movement Regime (FMR),* a mutual pact to allow tribes dwelling along the border to access the other side without a visa. FMR is an agreement signed between India and?

a. Nepal

b. Bhutan

c. Myanmar

d. Bangladesh

Answer : c

Free Movement Regime (FMR)

The Ministry of Home Affairs (MHA) has recommended the immediate suspension of FMR.

- **Free Movement Regime** – It is a mutual pact ***between India and Myanmar*** to allow tribes dwelling along the border on either side to travel up to 16 km inside the other without a visa.

- **Eligibility** – It can be used by either a citizen of India or a citizen of Myanmar with the production of a border pass
- Usually valid for a year, and can stay for up to 2 weeks per visit.
- **Challenges** – Myanmar's military coup in 2021 prompted an influx of undocumented migrants, who took shelter in Mizoram, and also entered Manipur.
- The migrants belonging to the Kuki-Chin-Zo ethnic group share ethnic ties with communities in Mizoram and Manipur.

8. Which of the following statements regarding Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme is *incorrect?*

a. It is a centrally sponsored scheme with 60% from the central government and 40% from the respective state governments.

b. It aims to provide income support of Rs. 6,000 per year to farmers in 3 equal instalments.

c. It includes all land-holding farmer families, irrespective of the size of their landholdings.

d. It will supplement financial needs for procuring various inputs related to agriculture and allied activities as well as domestic needs.

Answer : a

PM-KISAN Scheme

- Pradhan Mantri Kisan Samman Nidhi is a Central Sector scheme with 100% funding from Government of India.
- **Launched in** – 2019, retrospectively operational from 2018.
- **Feature**– Provides income support of Rs. 6,000 per year to farmers in 3 equal instalments of Rs.2000 each.
- **Beneficiaries** – All land-holding farmer families, irrespective of the size of their landholdings.
- **Direct Benefit Transfer**- The amount is directly transferred to the bank accounts of the beneficiaries without intermediaries.

9. Consider the following statements with respect to Wetland City Accreditation (WCA)

1. It is a voluntary scheme that recognizes cities which have taken exceptional stapes to safeguard their urban wetlands.
2. It is an initiative under Ramsar Convention.
3. Indore is the only accredited city in India under this program.

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

a. Only one
b. Only two
c. All three
d. None

Answer : b

Wetland City Accreditation (WCA)

*Recently Ministry of Environment Forest and Climate Change has submitted **first 3 Indian cities Indore, Bhopal & Udaipur** for Wetland City Accreditation (WCA) under the Ramsar Convention on Wetlands.*

- **WCA** – A ***voluntary scheme*** that recognizes cities which have taken exceptional steps to safeguard their urban wetlands.
- **Establishment** – During the ***Ramsar Convention COP12, 2015***.
- **Objectives** – To recognize the importance of wetlands in *urban and peri-urban environments* and to take appropriate measures to conserve and protect these wetlands.
- **Significance** – Cities can ***gain international recognition*** and ***positive branding opportunities*** for their efforts and provides sustainable socio-economic benefits for local populations.
- It will ***generate public awareness*** about wetland conservation and also help in implementation of Amrit Dharohar in India which aims to foster sustainable ecosystem development with the help of local communities.

	Indore	**Bhopal**	**Udaipur**
Location	Madhya Pradesh	Bihar	Rajasthan
Ramsar Site (or) Wetland	Sirpur Lake, a bird sanctuary	Bhoj Wetland with Jal Tarang (wetland interpretation centre)	5 wetlands –Pichola Fateh Sagar Rang Sagar Swaroop Sagar Doodh Talai
Efforts & Recognitions	-Wetland mitras for Sarus Crane. -Cleanest city in India. -India's Smart City Award 2023.	-Wetland mitras for Sarus Crane. -Lake Conservation Cell -Draft City Development Plan 2031	-

Criteria for getting WEA

- It has *one or more Ramsar Sites, or other significant wetlands* which provide(s) a range of ecosystem services to the city;
- It has *adopted measures for conservation* of wetlands.
- It has *implemented wetland restoration* measures.
- It *considers the challenges and opportunities* of integrated spatial/land-use planning for

wetlands under its jurisdiction.

- It has *raised public awareness* about the values of wetlands and enabled public participation in decision-making processes.
- It has established *a local committee to support* the preparation work and the implementation of measures.

10. Consider the following pairs:

Terms in News		***Entities***
1. AWaRe Tool	–	World Health Organization
2. Prerana Program	–	Ministry of Health and Family Welfare
3. Operation AMRITH	–	Narcotics Control Bureau
4. e-SAKSHI App	–	Ministry of Electronics & Information Technology

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

a. Only one

b. Only two

c. Only three

d. All four

Answer : c

Access, Watch and Reserve (AWaRe)

- Access, Watch and Reserve (AWaRe) is a classification tool for monitoring antibiotic consumption that was developed by ***World Health Organization*** in 2017.
- The tool defines the targets and monitors the effects of stewardship policies that aim to optimize antibiotic use and curb antimicrobial resistance.
- This classification is a helpful tool for assessing the results of stewardship policies that seek to maximize antibiotic use and reduce antimicrobial resistance.
- Antibiotics are categorized into 3 groups to emphasize the significance of their appropriate use while also taking into account the impact of various antibiotics.
- The 3 groups are: Access, Watch, and Reserve.
- The ***National Centre for Disease Control (NCDC) is the nodal agency*** for India's national programme on AMR containment, of which one of the key components is the surveillance of antibiotic usage.

Prerana Program

- Prerana Program aims to offer a meaningful, unique and inspiring experience to all participants, thereby empowering them with leadership qualities.
- It is a week-long residential program for 20 selected students of ***class IX to XII***.
- It is an Experiential Learning Program to empower students with leadership qualities.
- It was launched by the ***Department of School Education & Literacy, Ministry of Education***.
- Prerana program will run from a Vernacular School which was established in 1888 at Vadnagar, Gujarat. Vadnagar is one of the oldest living cities of India.
- The Prerana stands as a tribute to Vadnagar's indomitable spirit, a living city that has triumphed over challenges like earthquakes and natural calamities.
- The curriculum of Prerana School prepared by IIT Gandhi Nagar.

Operation AMRITH

- The ***Operation AMRITH conducted by the Kerala state government*** to tackle antimicrobial resistance.

- Operation AMRITH – Antimicrobial Resistance Intervention for Total Health to prevent the overuse of antibiotics in the state.
- It is aimed at conducting surprise raids in retail medical shops for detecting OTC sale of antibiotics that was launched by the Kerala state government.
- **Operation Sesha** – To curb the illegal trade of Timber, including Red Sanders.
- **Operation Nanhe Faristey** – Reunification of children in need of care and protection with their families.

e-SAKSHI Mobile Application

- The MPLAD Scheme, designed to empower Members of Parliament (MPs) to recommend developmental projects, has undergone a transformation with the introduction of a revised fund flow procedure.
- The primary objective is to facilitate the recommendation of works that focus on creating lasting community assets based on locally perceived needs.
- The e-SAKSHI mobile application ***provides real-time access, enhancing decision-making processes for MPs***.
- It was ***launched by the Ministry of Statistics and Programme Implementation***.
- This innovative technology solution aims to enhance transparency, accessibility, and efficiency in the execution of MPLAD scheme.
- The mobile app will promote transparency by providing MPs with instant updates on the status and progress of their proposed projects.

11. Consider the following statements regarding UN High Seas Treaty

1. The treaty was also called as Paris Agreement for the Ocean.
2. UN High seas treaty is legally binding in nature.
3. The treaty was adopted under the framework of United Nations Convention on Laws of the Sea (UNCLOS).
4. High Seas are the parts of the sea that are not included in the territorial waters of a country.

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How many of the statement(s) given above is/are correct?

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

Answer : d

UN High Seas Treaty

The High Seas Treaty has been adopted at the 5th UN Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction.

- **Under the framework** of – United Nations Convention on Laws of the Sea (***UNCLOS***).
- **Objective** – It will ensure the conservation and sustainable use of marine biological diversity in areas *beyond national jurisdiction* through international cooperation and coordination.
- It is also referred to as the '**Paris Agreement for the Ocean'** or 'Biodiversity of Areas Beyond National Jurisdiction treaty'.
- **Draft agreement** – It recognises the need to address biodiversity loss and degradation of ecosystems of the ocean.
- It places 30% of the world's oceans into protected areas, for marine conservation and covers access to and use of marine genetic resources.
- **Legality** – It is ***legally binding*** in nature but will only enter into force once 60 countries have ratified it.

- **High seas** – According to the 1958 Geneva Convention on the High Seas, they are the parts of the sea that are ***not included in the territorial waters*** or the internal waters of a country.
- It is the area beyond a country's Exclusive Economic Zone which extends up to 200 nautical miles or 370 km from the coastline & till where a nation has jurisdiction on living & non-living resources.



- No country is responsible for management and protection of resources on the high seas.

12. *Methane Global Tracker* is an annual report released by _____?

a. Germanwatch
b. International Energy Agency
c. United Nation Environment Programme
d. International Methane Emissions Observatory

Answer : b

Methane Global Tracker Report

2023 edition of Methane Global Tracker Report was released.

- **Released by** – ***International Energy Agency (IEA***)
- **Aim** – To bring down methane emissions from across the energy sector and implement the new Global Methane Pledge.
- **2023 Report** – The energy sector accounts for around 40% of the total average methane emissions from human activity.
- More than 260 billion cubic metres (bcm) of natural gas (mostly composed of methane) is wasted through flaring and methane leaks globally.
- 80% of the available options to curb the release of methane could be implemented by the fossil fuel industry at net zero cost.
- Ultimately, reducing 75% of the wastage of natural gas could lower global temperature rise by nearly 0.1 degree Celsius by mid-century.

Methane

- It is far more powerful than CO2 at trapping heat in the atmosphere but relatively short-lived.
- It is 80 times more potent at warming than carbon dioxide.
- It is responsible for around 30% of the rise in global temperatures since the preindustrial era.

13. Consider the following statements with respect to the United Nations Forum on Forests (UNFF)

1. It was established by United Nations Environment Programme (UNEP) as a subsidiary body.
2. It has universal membership, and is composed of all Member States of the United Nations.

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

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

Answer : b

United Nations Forum on Forests (UNFF18)

UNFF18, the 18th edition of UNFF held in New York, discussed the contributions of SFM to energy, livelihoods and the SDGs.

- **Established by** – ***UN ECOSOC in 2000***, as a subsidiary body.
- The UN General Assembly adopted the 1st ever *UN Strategic Plan for Forests 2017-2030.*
- The Strategic Plan provides a global framework for actions at all levels to sustainably manage all types of forests and trees outside forests and halt deforestation and forest degradation.
- There are 6 Global Forest Goals and 26 associated targets to be achieved by 2030 in the Strategic Plan.
- These goals and targets are voluntary and universal.
- **Membership** – It has ***universal membership***, and is composed of ***all Member States of the United Nations and specialized agencies***.
- **Meeting** – It happens *annually* and will focus on discussions on implementation, technical advice and exchange of experiences.
- **UNFF18** – It discussed the contributions of sustainable forest management (SFM) to energy, livelihoods and the SDGs.
- India presented a case of a UNFF country-led initiative on long-term SFM.
- India also shared concerns on wildfires and the problems associated with current forest certification schemes.

14. Consider the following statements regarding the Pygmy Hogs

1. They are an indicator species.
2. They live only in the wet high grasslands at the foothills of the Himalayas.
3. They are herbivores and feeds on roots, plants and tubers.

How many of the above statements are correct?

a. Only one
b. Only two
c. All three
d. None

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Answer : b

Pygmy Hog

According to a research article, the African swine fever could fatally affect the population of pygmy hogs, the world's rarest and smallest pigs.

- **Scientific name** – Porcula salvania
- **Features** – They are smallest and rarest wild piggy.
- Their skin is dark brownish-black in colour and their hair is dark.
- *Native to alluvial grasslands* in the foothills of the Himalayas.
- They live ***only in the wet high grasslands at the foothills of the Himalayas***.

- **Distribution** – Once found all the way from Uttar Pradesh to Assam, but vanished by the early 1960s.
- Now their population is confined to Assam and southern Bhutan.
- **Diet** – Omnivores and thus feed on roots, tubers, insects, rodents, and small reptiles.
- **Significance** – They are ***an indicator species***.
- Their presence ***ensures a healthy habitat for other rarities*** such as the one-horned

rhinoceros, hog deer, Eastern barasingha, tiger, water buffalo, lesser florican and the hispid hare.

- **Threats** – Loss and degradation of habitat due to agricultural encroachments, human settlements, livestock grazing, etc.
- **Conservation Efforts** – Pygmy Hog Conservation Programme in 1995.

15. Consider the following statements with respect to Parliamentary Committees.

1. An allegation of corruption against a Member of Parliament (MP) can be sent to either Ethics Committee or Privileges Committee.
2. An allegation of corruption against a non-Member of Parliament can be sent only to Privileges Committee and not to Ethics Committee.

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

Answer : c

Ethics committee

The Lok Sabha Ethics Committee inquired regarding a complaint of cash for query against a sitting Member of Parliament.

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- An **allegation of corruption against an MP** – It can be ***sent to either Ethics or Privileges Committee***, but usually more serious accusations go to the latter.
- **Privileges Committee** – It can take up cases of misconduct that involve ***both MPs and non-MPs***.
- **Ethics Committee** – It can take up ***only cases*** of misconduct that ***involve MPs***.
- **History** – *Vohra committee* report submitted in 1995 pointed out the nexus between criminal gangs, police, bureaucracy and politicians have come clearly out in various parts of the country.
- **Recommendations** – A Presiding Officers' Conference held in Delhi in 1996 1st mooted the idea of ethics panels for the two Houses.
- Committee of Privileges recommended the constitution of an Ethics Committee during the 13th Lok Sabha.
- **Aim** – To oversee the moral and ethical conduct of members and examine cases of misconduct referred to it.
- The rules applicable to the Committee of Privileges also apply to the ethics panel.

Ethics Committee		
About	**Lok Sabha**	**Rajya Sabha**
Established	2000	1997
Members	Should not contain more than 15 members	10 members including Chairman
Nominated by	Speaker	Chairman
Chairperson	It is appointed by Speaker amongst the Committee members	It is from the largest party in the House
Term	Not exceeding 1 year	Not exceeding 1 year

Functions	• It enforces the code of conduct of members of Parliament. • It examines the cases of misconduct and recommends appropriate action. • It is engaged in maintaining discipline and decorum in Parliament.

16. Consider the following statements with respect to the Dancing Frogs

1. They are endemic to Western Ghats.
2. Foot-flagging is a unique behaviour to it that serves the dual purpose of attracting females and warning other males in the vicinity.
3. According to the second edition of the Global Amphibian Assessment, dancing frogs are the most threatened amphibian genus of India.

How many of the statements given above are correct?

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

Answer : c

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Dancing Frogs

The Wildlife Trust of India after analysing the second edition of the Global Amphibian Assessment and said the dancing frogs are endemic to the Western Ghats are the most threatened amphibian genus of India.

- Dancing frogs are members of the Micrixalus genus and there are about 24 frog species in this family.
- Their preferred habitats are ***shola grasslands, myristica swamps and evergreen forests*** within the ***Western Ghats***, where they mainly reside near slow-moving perennial streams.
- The dancing frogs that are found near the streams do a unique display to mate.
- The males stretch up their hind legs one at a time and wave their webbed toes in the air in a rapid motion akin to a dance.
- The signature dance move is called ***'foot-flagging'*** and serves the dual purpose of attracting a female while also sending out a warning signal to other male frogs in the area.
- According to the second edition of the Global Amphibian Assessment the dancing frogs that are endemic to the Western Ghats are the most threatened amphibian genus of India.
- The factors that are threating the Dancing frogs are:
    - Invasive species like the mosquito and fish,
    - Land use change, and variation in temperature and humidity,
    - Extreme weather events such as floods and excess rainfall,
    - Infectious diseases, water pollution, light pollution and
    - Infrastructure projects such as dams.

- They are also impacted by human activities that alter the flow of wild streams in the forest.

- Of the 24 species of the frogs belonging to the Micrixalus genus that were assessed, 2 were found to be critically endangered and 15 were endangered.
- It is also the 5th most threatened genus in the world with 92 % of its species in the threatened category.
- Frogs are valuable in the food chain and also provide other ecological services.
- Protecting the natural habitats and preserving their optimal living conditions is vital to save the last of these species.

17. Consider the following statements with respect to Pradhan Mantri Anusuchit Jaati Abhuyday Yojana

1. It aims to reduce poverty of the Schedule Caste (SC) communities by generation of additional employment opportunities through skill development.
2. It is a merged scheme of 3 Centrally Sponsored Scheme with Adarsh Gram being one of the components of the yojana.
3. The scheme functions under aegis of the Ministry of Skill Development and Entrepreneurship.

How many of the statement(s) given above is/are correct?

a. Only one

b. Only two

c. All three

d. None

Answer : b

Pradhan Mantri Anusuchit Jaati Abhuyday Yojana

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- Pradhan Mantri Anusuchit Jaati Abhuyday Yojana (PM- AJAY) is a merged scheme of 3 Centrally Sponsored Scheme such as:
    1. **Pradhan Mantri Adarsh Gram Yojana (PMAGY**) – Aims at integrated development of Scheduled Castes majority villages.
    2. **Special Central Assistance to Scheduled Castes Sub Plan (SCA to SCSP)** – Provides 100% grant to the States/UTs as an additive to their Scheduled Castes Sub Plan (SCSP).
    3. **Babu Jagjivan Ram Chhatrawas Yojana(BJRCY)** – Construction of hostels for students belonging to Scheduled Castes (SC).
- ***PM- AJAY aims to reduce poverty of the SC communities*** by generation of additional employment opportunities through Skill development, income generating schemes and other initiatives.
- It aids to improve socio-economic developmental indicators by ensuring adequate infrastructure and requisite services in the SC dominated villages.
- ***The scheme functions under aegis of the Ministry of Social Justice and Empowerment***.
- ***The 3 components of PM- AJAY*** are:
    1. Development of SC dominated villages into an "***Adarsh Gram***".
    2. Grants-in-aid to State/Districts.
    3. Construction/Repair of Hostels.
- The objective of Adarsh Gram is to ensure integrated development of SC majority villages.
- All requisite infrastructure necessary for socio-economic development needs are to be provided under the Scheme.
- The PM- AJAY aims at socio-economic development of SCs through grants for following types of projects:
    - Comprehensive Livelihood Projects.
    - Skill Development.
    - Grants for creation/acquisition of assets for beneficiaries/households.
    - Infrastructure development.

18. The 2023 Nobel Prize for Physics which awarded for experimental methods generating attosecond pulses, that corresponds to which one of the following?

a. They are sound pulses, which used to unravel dynamical processes in matter with unprecedented time resolution.

b. They are extremely short light pulses which are used to study superfast processes.

c. It is one trillionth of a second, the timescale at which the properties of an electron change.

d. It is a beam of sound consists of oscillating electric and magnetic fields.

Answer : b

Attosecond Science

2023 Nobel Prize for Physics was awarded to Anne L'Huillier, Pierre Agostini, and Ferenc Krausz for experimental methods that generate attosecond pulses of light for the study of electron dynamics in matter.

- **Attosecond** – It is ***one quintillionth of a second*** or 10-18 seconds, the timescale at which the properties of an electron change.
- It can also be referred as one-billionth of a nanosecond.
- These ***light pulses*** are used to unravel dynamical processes in matter with unprecedented time resolution.

- **Attosecond science** – It is a branch of physics that deals with light-matter interaction phenomena, production of ***extremely short light pulses*** and using them ***to study superfast processes***.

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19. *Abhyudaya*, a hindi weekly magazine, was authored by?

a. Madan Mohan Malaviya

b. Gopal Krishna Gokhale

c. Usha Mehta

d. Nanaji Deshmukh

Answer : a

Abhyudaya

- Abhyudaya is a Hindi weekly magazine which was authored by ***Madan Mohan Malaviya***, in 1907.
- *MM Malaviya is the founder of the Banaras Hindu University* and he himself edited the paper Abhyudaya.
- It remained a weekly until 1915, when it was converted into a daily.

20. Consider the following pairs with respect to the Chola Dynasty

Terms		***Meaning***
1. Kalam	–	Sailing vessels
2. Salai	–	Army training centre

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

a. 1 only

b. 2 only

c. Both 1 and 2

d. Neither 1 nor 2

Answer : c

Chola Dynasty

- Chola dynasty antedates the early Sangam poems (200 CE).
- The dynasty originated in the rich Kaveri (Cauvery) River valley.
- Uraiyur (now Tiruchchirappalli) was its oldest capital.
- Chola kings and emperors bore the titles Parakesharivarman and Rajakesharivarman.
- Rajaraja I, Rajendracola Deva I, Rajadhiraja and Kulottunga I were notable rulers of Chola dynasty.
- To know more about Imperial Cholas click here.
- **Terms in Chola dynasty**
    - ***Kalam - Sailing vessels***
    - ***Salai - Army training centre***

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