



## CA Revision Module - Test 34 - Full Test - III (From January 2023 - March 2024)

1. Which of the following best describes the term, “Windfall Tax”?

- a. A tax to be paid by the importers of certain goods that reflects the carbon content of those goods.
- b. A tax levied on the investments made by an investor in startups and early-stage companies.
- c. A tax levied on the profits of a company that is derived from an external or unprecedented event.
- d. A tax imposed on the gains realized by shareholders or owners when a company is liquidated or wound up.

Answer : c

### Windfall tax

- It is a **tax on the profits of a company that is derived from an external or unprecedented event**.
- In other words, when a company benefits from something that they are not responsible for, the financial gain that ensues is called windfall profits.
- Governments, typically, levy a one-time tax over and above the normal rates of tax on such profits and that is called windfall tax.
- For example, the energy price rises as a result of the Russia-Ukraine Conflict.
- Since, energy companies are gaining profit not because of any improvement in their processes but because of the geopolitical situation, many governments are considering to impose such tax.
- This will boost the government’s finances, and help fund efforts to protect vulnerable sections from rampant inflation.

2. With reference to Office of Deputy Chief Minister, consider the following statements.

- 1. It is mentioned in the Article 75 of Indian Constitution.
- 2. A state cannot have more than one deputy Chief Minister.
- 3. She/he is equivalent to the rank of cabinet minister in that state.

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

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

Answer : a

### Office of Deputy Chief Minister

- **Constitutional provisions** - Deputy CM **is a political post**, and it’s **not a constitutional post** like Vice President of India.

- Its origin can be traced to the post of Deputy Prime Minister which was appointed in 1947 post-independence, **Sardar Vallabhai Patel is the first Deputy PM of India.**
- *Anugrah Narayan Sinha* from Bihar was the 1st leader to hold the post of deputy CM post-Independence.
- **Appointment and removal** - It is entirely at the discretion of Chief Minister, who can **appoint more than one Deputy CM.**
  - **For example:** Maharashtra has 2 Deputy CMs and Andhra Pradesh has 5 Deputy CMs.
- **Tenure** - No fixed tenure as Chief Minister may reshuffle the portfolio or remove a deputy CM at any point of time.
- **Rank - Equivalent to the rank of cabinet minister** in the state, and has same pays and perks as Cabinet Minister.
- It is considered as second highest ranking Executive officer of the State Council of Ministers.
- He has no authority to see the files earmarked for CM and the portfolios allotted to Deputy CM are routed to CM via Deputy CM.

3. Researchers have unveiled an alarming insights into the potential impact of clethodim on male reproductive health. *Clethodim* is widely used as a?

- Herbicide
- Refrigerant
- Polymer resins
- Food preservative

Answer : a

## Clethodim

Researchers have unveiled alarming insights into the potential impact of the widely used **herbicide** clethodim on male reproductive health.

- Clethodim is an oxime O-ether resulting from the formal conversion of the acyclic keto group of oxime with chloroallyl group.
- It is used as a selective post emergence **herbicide** for the control of annual and perennial grasses in numerous crops.
- The crops includes *alfalfa, celery, clover, conifers, cotton, cranberries, garlic, onions, ornamentals, peanuts, soybeans, strawberries, sugar beet, sunflowers, and vegetables.*
- **Effects** - Exposure to the widely used herbicide Clethodim can significantly **impact male reproductive function** and **early embryonic development.**
- It causes a reduction in testicular weight, a decrease in germ cell population, lower levels of serum testosterone, abnormalities in sperm, and compromised pre-implantation embryo development.

4. Consider the following statements with respect to Cott-Ally App

1. It aims to educate the farmers about MSP rates, nearest procurement centers, payment tracking and best farming practices.
2. It is a free mobile-based application owned by the ICAR-Central Institute of Cotton Research (CICR).

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

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

Answer : b

## Cott-Ally App

- **About** - A free **mobile-based application** to farmers cultivating cotton.
- **Owned by** - **Cotton Corporation of India.**
- **Features** - Provides information regarding **payment status, purchase centers** available across all cotton growing states in the country, **MSP rates**, and variety of cotton, latest news, and notifications.
- This application is developed to maintain the transparency about the business between the CCI (Cotton Corporation of India Ltd) team and the farmers.

## Cotton Corporation of India (CCI)

- It is a Public Sector Undertaking under the administrative control of **Ministry of Textiles**, Government of India.
- CCI operates in all the cotton growing States.
- The major role of the CCI is to undertake Minimum Support Price (MSP) operations on behalf of the Government of India and outreach with the cotton farmers.
- CCI has developed a mobile app Cott-Ally exclusively for the cotton farmers.

5. The practice of 'veli' among the Vaddi community of Andhra Pradesh, refers to?

- a. An equitable distribution of land rights among indigenous or tribal communities
- b. The isolation of tribal or indigenous communities refers from mainstream society
- c. A practice of slash-and-burn agriculture where land is cleared and cultivated for a short duration
- d. A form of social ostracisation and the boycotted people are not allowed to speak to other villagers

Answer : d

## Veli

*In a fishing village of Andhra Pradesh, the practice of social boycott among the Vaddi community has adverse social and economic consequences.*

- Veli is the **practice of social boycott.**
- Those subjected to social ostracisation are not allowed to speak to other villagers and in some cases, compelled to abandon their homes and seek refuge elsewhere.
- An informal grama peddalu (village elders), also called a kula (caste) panchayat, of six or seven members nominated for a year by the community (they are never re-installed), takes a call on veli.
- The grama peddalu may also enforce *tappu (wrong)*, a monetary penalty against 'wrongdoers'.

6. Consider the following passage:

It is located on the banks of the Godavari River. The temple derives its name from a black statue of the Lord. The Babasaheb Ambedkar led a landmark agitation demanding temple entry rights for Dalits in this temple. The sanctum sanctorum has statues of Ram, Sita and Lakshman.

The above passage best describes which of the following temples?

- a. Brihadishvara Temple
- b. Kalaram temple
- c. Chennakeshava Temple
- d. Simhachalam Temple

Answer : b

## Kalaram Temple

- **Location** – Nashik, **Maharashtra**.
- **Built** - It was built in **1792** with the efforts of **Sardar Rangarao Odhekar**, a Maratha nobleman.
- The Kalaram temple derives its name from a *black statue of the Lord*, which is Kala Ram that translates to Black Ram.
- The sanctum sanctorum has statues of **Ram, Sita and Lakshman**.
- A *black idol of Hanuman* is located at the main entrance of the temple.
- The main temple has 14 steps, which represent the 14 years of Ram's exile.
- It is located on the banks of the **Godavari River**.
- **Babasaheb Ambedkar** – In 1930, B R Ambedkar led an agitation to demand access for Dalits to Hindu temples.

7. With reference to *Chiral Bose-Liquid state*, consider the following statements

1. In this state, electrons can be frozen into predictable patterns.
2. In this state, electrons can be made resilient to changes in spin.
3. In this state, electrons can even synchronise their movements.

How many of the above statements are correct?

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



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Answer : c

## Chiral Bose-Liquid State

*A recent research shows that the chiral Bose-liquid state may be an entirely new state of matter.*

- **3 classical states of matter** – Solid, liquid and gas.
- But, exotic or quantum states of matter, such as plasma, time crystals, and Bose-Einstein condensate also exist at the atomic scale, and at extremely low temperatures approaching absolute zero.
- **Chiral Bose-liquid state** – A new phase discovered by physicists in a frustrated quantum system, where infinite possibilities result from the interaction of particles.
- **Setup** – A bilayer semiconductor device or a frustration with the top layer made to be electron-rich, in which the electrons can freely move about, while the bottom layer only had holes which are slots an electron can occupy.
- Then the 2 layers are brought extremely close together.
- The machine is then triggered to create a local imbalance resulting in electrons not having enough holes to fill (similar to the game of musical chairs).
- This kicks off the novel state called the chiral Bose-liquid state.
- **Significance** - In this state,
  - **Electrons** can be **frozen into predictable patterns**.
  - Electrons can be made **resilient to changes in spin** (a defining characteristic of subatomic particles)
  - Electrons can even **synchronise their movements**.

8. “Qanat” is an ancient system associated with which of the following?

- a. Market system
- b. Irrigation system
- c. Land revenue system
- d. Military administration system

Answer : b

### Qanat System

- The Persian Qanat or Qanat is an **ancient irrigation system** for *transporting water from underground sources to the surface*.
- The system originated in **Iran** around 3,000 years ago.
- It can be **built in arid regions** of Iran, agricultural and permanent settlements.
- It's known by a variety of names such as *foggara* in North Africa, *falaj* in Oman and *qarez* in parts of Asia.
- Qanats can only be built where there's a slope, like a mountain or a valley.
- **Advantages** – The qanat is sustainable as it works with gravity and no electricity is needed.
- Qanats are multiple kilometres long and once this water hits a floodplain, it can irrigate multiple hectares of land.

9. Which of the following countries are part of the *Chip 4 Initiative*?

- 1. US
- 2. China
- 3. Russia
- 4. India
- 5. Japan



Select the correct answer using the codes given below:

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

Answer : a

### Chip 4 Initiative

- It includes world's top semiconductor producing countries namely the **U.S., Japan, Taiwan and South Korea**.
- It is also known as “*Fab 4*” initiative. (Fab refers to an industry term for the fabrication plants).
- It represents *more than 70%* of the value of the global semiconductor industry.
- **Need-** To help ensure a stable supply of chips as a bulwark against China's semiconductor industry.
- **Taiwan** – It is the global epicenter of semiconductor manufacturing with the manufacture of **over 60% of the world's chips**.
- **Japan** – It is dominant in production of critical manufacturing equipment and materials such as photoresists.
- **South Korea** is a global leader in memory chip production.

10. Consider the following statements with respect to Primary Agricultural Credit Societies (PACS)

1. It constitutes the lowest tier of the long-term cooperative credit structure in India.
2. Individual farmers are members of the PACS, and office-bearers are elected from within them.
3. A village can have multiple Primary Agricultural Credit Societies (PACS).

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

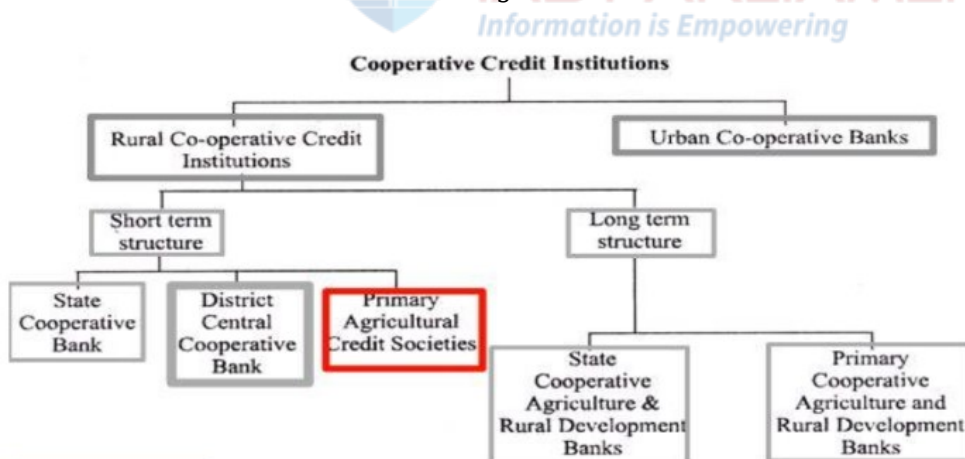
- a. None
- b. Only one
- c. Only two
- d. All three

Answer : c

## Primary Agricultural Credit Societies (PACS)

*The Cabinet cleared a plan for setting up 2 lakh Primary Agricultural Credit Societies (PACS), dairy, and fisheries cooperatives in the country in the next 5 years.*

- **PACS** - It constitute the *lowest tier of the **short-term** cooperative credit (STCC)* structure in the country.
- **Individual farmers are members of the PACS, and office-bearers are elected from within them.**
- A village can have **multiple PACS**.
- **Functions** - Other than short-term credit, they can also provide other input services, like seed, fertilizer, and pesticide distribution to member farmers.
- **Significance** - They ensure financial inclusion of the most vulnerable rural population.
- It account for 41 % of the KCC loans given by all entities in the Country and 95 % of these KCC loans are to the Small and Marginal farmers.



11. *Plastiglomerates*, which was recently discovered in Trindade Islands refers to \_\_\_\_?
- a. A naturally evolving plastic eating bacterial species that breaks the plastics and digests it.
  - b. A plastic rock, where plastic hold together a mixture of sedimentary granules and other debris.
  - c. A group of plastics which has the ability to withstand the effects of repeated wearing, rubbing, scraping.
  - d. None of the above

Answer : b

## Plastiglomerates



Researchers have found plastic rocks on Trindade Island in the state of Espirito Santo, Brazil.

- Plastic was found in the rocks called plastiglomerates.
- **Plastiglomerates** - A mixture of sedimentary **granules and other debris held together by plastic**.



- This intertwining of plastic with rocks is evidence of humans' pollution reaching earth's geological cycles.
- **Causes** - Plastic Debris like the fishing nets are dragged by the marine currents and accumulate on the beach.
- When the temperature rises, this plastic melts.
- Over the time, the melted plastic became intertwined with rocks on the island.
- **Trindade Island** - It is an archipelago located in the **South Atlantic Ocean** administered by **Brazil**.
- It is an important conservation spot for one of the largest sea turtles, Green Turtles (Chelonia Mydas) whose IUCN Status is Endangered.

12. Consider the following statements with respect to the Indo-Pacific Economic Framework (IPEF)

1. All the IPEF partners must join the four pillars of IPEF.
2. India is one of the IPEF partner and it has joined all the four pillars of the IPEF.
3. Only member countries of Regional Comprehensive Economic Partnership (RCEP) are allowed to join IPEF.

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

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

Answer : d

### Indo-Pacific Economic Framework (IPEF)

- **Launched by** - USA in 2022.
- **Aim** - To reassert U.S. economic engagement and to provide a U.S.-led alternative to China's economic statecraft in the region.
- **Member countries (14)** - USA, Australia, Brunei Darussalam, Fiji, India, Indonesia, Japan, the Republic of Korea, Malaysia, New Zealand, Philippines, Singapore, Thailand, and Vietnam excluding China.

- **No tariffs** - IPEF proposal completely removes the tariff element of typical trade deals.
- **Four pillars**
  - Trade
  - Supply chains
  - Clean energy, decarbonization, and infrastructure
  - Tax and anti-corruption
- The IPEF is flexible as IPEF partners are **not required to join all four pillars**.
- India has joined 3 pillars **except the trade pillar**.
- Regional Comprehensive Economic Partnership (RCEP) is a Free Trade Agreement (FTA) between China, Japan, South Korea, Australia, New Zealand and the 10 ASEAN member.
- The 10 ASEAN member are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.
- **Except USA, India and Fiji all members of IPEF are members countries of RCEP.**
- The 14 IPEF partners represent 40 % of global GDP and 28 % of global goods and services trade.

13. Consider the following statements with respect to Special Category Status.

1. It is a classification granted by the Centre to assist the development of States that face geographical or socio-economic disadvantages.
2. Special category status to states was granted by the National Development Council (NDC).
3. Special category status to states empowers them with political and legislative powers.

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

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



Answer : b

### Special Category Status Vs Special Status

- In light of the “Bihar Caste-based Survey, 2022” which showed that almost 33% of Bihar’s people are poor, the State government seeks Special Category Status.
- **Special Category Status** - It is a classification granted by the Centre to assist the development of States that face geographical or socio-economic disadvantages.
- **Launched in** - 1969, on the recommendation of the 5th Finance Commission (FC) and based on Gadgil formula.
- It was 1st accorded to Jammu and Kashmir, Assam and Nagaland in 1969.
- **Discontinued in** - 2015, after the 14th Finance Commission recommendations.

About	Special Category Status	Special Status
<b>Provision</b>	It is granted by the <b>National Development Council</b> , which is an administrative body of the government	The Constitution ( <i>Article 371 to 371-J</i> ) provides special status through an Act that has to be passed by 2/3rd majority in both the houses of Parliament
<b>Powers</b>	Deals only with economic, administrative and financial aspects.	<b>Empowers them with legislative and political rights.</b>



<b>Applicable States</b>	<b>11 States</b> - Assam, Sikkim, Manipur, Nagaland, Himachal Pradesh, Mizoram, Meghalaya, Tripura, Arunachal Pradesh, Uttarakhand and Telangana.	<b>12 States</b> - Maharashtra, Gujarat, Nagaland, Goa, Assam, Manipur, Andhra Pradesh, Arunachal Pradesh, Telangana, Sikkim, Mizoram and Karnataka.
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14. Which of the following is **incorrect** with respect to Quantum Dots?

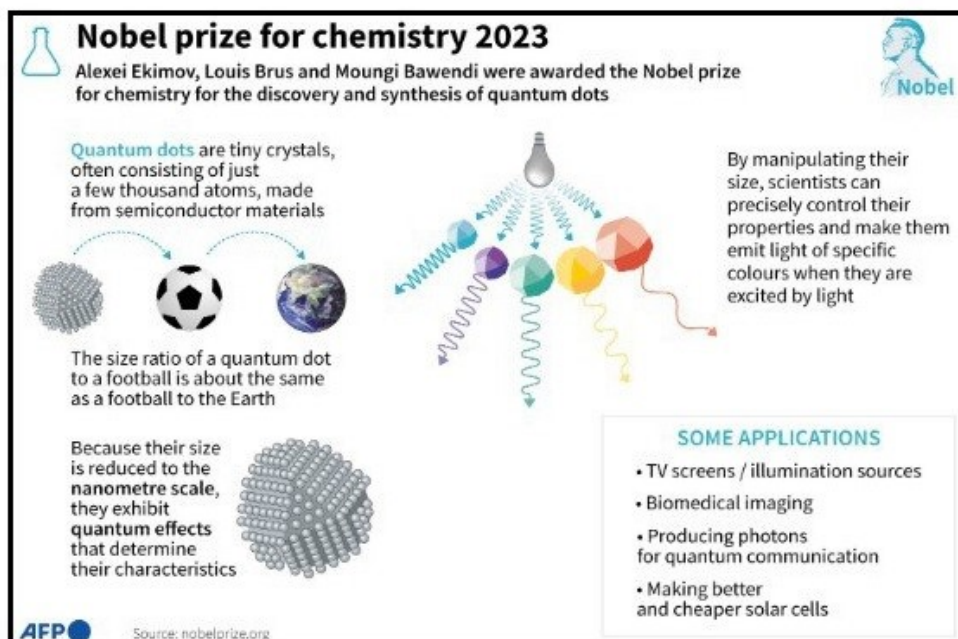
- They are man-made nanoscale crystals.
- When light is shined on, it absorbs and then re-emits the light at a different frequency.
- By manipulating their size, we can make them emit light of specific colours when they are excited by light.
- Smaller dots emits red light while relatively larger dots emits blue light.

Answer : d

## Quantum Dots

*Nobel Prize for Chemistry 2023 has been awarded to Alexei I. Ekimov, Louis E. Brus, and Moungi G. Bawendi for the discovery and synthesis of quantum dots.*

- **Quantum dots** - They are **man-made nanoscale crystals** that exhibit unique optical and electronic properties, including the ability to transport electrons and emit light of various colors when exposed to UV light.
- **Effect of light**- When *light is shined on* a quantum dot, **it absorbs and then re-emits it at a different frequency**.
- By **manipulating their size**, one can precisely control their properties and **make them emit light of specific colours** when they are excited by light
  - **Smaller dots** - Emits **bluer light**
  - **Larger dots** - Emits **redder light**
- **Principle** - This happens because light shone on the dot energises some electrons to jump from one energy level to a higher one, before jumping back and releasing the energy at a different frequency.
- **Alexei Ekimov** - He added different amounts of copper chloride to a glass before heating it to different temperatures for different durations, tracking the dopants' structure and properties.
- They found that the glass's colour changed depending on the size of the copper chloride nanocrystals.
- **Louis Brus** - He and his colleagues prepared similar crystals **in a liquid solution**, rather than in a glass.
- These crystals also interacted with light differently depending on small variations in their size.
- **Moungi Bawendi** - He devised a simple way to make quantum dots with just the right properties using hot-injection method.



- **Quantum theory** - The motion and behaviour of very small particles are radically different, and strange, when compared with any familiar object in normal human experience.

15. Consider the following pairs.

#### Art forms

#### Regions

- |                        |   |           |
|------------------------|---|-----------|
| 1. Pichwai Painting    | - | Mysore    |
| 2. Dogra architecture  | - | Jammu     |
| 3. Vajra Mushti Kalaga | - | Rajasthan |

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

- Only one
- Only two
- All three
- None

Answer : a

### Pichwai Painting

- **Origin** - It is a 400-year-old art whose roots are from **Nathdwara town in Rajasthan**.
- **Theme** - Various stages of Lord Krishna's life, including his childhood, youth, and adulthood.
- **Paintings** - It is typically done on cloth, usually khadi but now being produced on various mediums such as paper, canvas, and silk.
- **Different schools of Pichwai** — Nathdwara, Kishangarh and Bundi in Rajasthan and Deccan school
- **Materials used** - Natural colors made from minerals and plant extracts.
- Stone pigments are used for gold and silver tones.
- Vegetable dyes are used for brighter orange, red, chrome yellow and kesari colours.
- **Usage** - As a backdrop for hindu deities in temples.
- They are typically hung behind the idol of Shrinathji, a local form of Krishna and the centre of Pushtimarg worship.
- **Popularity** - It is known for their intricate details, ornate borders, and fine brushwork.

## Dogra architecture

- *Srinagar Smart City Limited and the Kashmir chapter of INTACH have joined hands to conserve vernacular elements of Kashmiri architecture recently.*
- Dogra architecture is a distinct culture that **formed in Jammu**, where cultures mixed together.
- **Dogra Dynasty** – Dynasty of Hindu Rajputs who ruled Jammu & Kashmir from 1846 to 1947.
- **Examples** – Some examples of Dogra architecture include:
- **Mubark mandi** – A hub of Dogra culture until 1947, with a jharokha style of balcony.
- **Maharaj Gunj** – A market area with a variety of colonial and vernacular architecture.
- **Rani Charak Mahal** – A mahal with phenomenal architecture and interiors.

## Vajra Mushti Kalaga

- The “vajra mushti kalaga” is a *form of wrestling or a traditional Indian martial art* that incorporates various hand-to-hand combat techniques, such as grappling, wrestling, and striking.
- It entails two jettys taking a swipe at each other’s head with a small metal weapon called a knuckleduster.
- Vajra Mushti matches are still held during the **annual Mysore Dasara festival at Mysore Palace**.
- The tradition dates back to the *Wadiyar dynasty* in 1610.
- Modern combatants use knuckle-dusters with blunt studs. The weapon is sometimes called Indra-musti.
- Whosoever draws the blood from the opponent’s head first is declared the winner.
- Medieval travellers from Portuguese noticed this form of wrestling during the Navaratri celebrations in Vijayanagar Empire and have left detailed accounts of it.

16. Consider the following statements with respect to Cricket

1. The Los Angeles Olympics, 2028 will be the first Olympics to feature the Cricket sport.
2. In commonwealth games, it was featured for the first time in the Commonwealth Games, 2022.

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 : d

## Cricket in Olympics

*International Olympic Committee approves cricket among other 5 sports for 2028 Los Angeles Olympics whose final voting will be held soon.*

- The 5 new sports under consideration are:
  1. Twenty20 cricket
  2. Baseball/softball
  3. Flag football (non-contact American football)
  4. Squash
  5. Lacrosse
- **1900 Paris Olympics – Cricket was last featured at this event.**

- Britain beat a side representing France.
- It would tap into the lucrative south Asian market, attracting fans in countries such as India and Pakistan.
- **Roadmap of Cricket in Global stage**
  - In 2019, International Cricket Council (ICC) took a decisive move to make cricket a global sport.
  - In 2022, it returned to the Commonwealth Games 2022, when women's T20s team played.
- Cricket is an optional sport at the quadrennial Commonwealth Games. ***It first appeared at the 1998 Commonwealth Games***, with a men's tournament.
- BCCI agreed to come under the ambit of India's National Anti-Doping Agency, an affiliate of the World Anti-Doping Agency (WADA).
  - IOC mandates that every global sport body must be WADA compliant.
- *T20 cricket is the sport's shortest international format.*

17. Consider the following pairs with respect to evacuation of Indians.

<b>Operations</b>		<b>Countries</b>
1. Ajay	-	Israel
2. Kaveri	-	Sudan
3. Ganga	-	Ukraine
4. Devi Shakti	-	Afghanistan

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

- Only one
- Only two
- Only three
- All four



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Answer : d

### Evacuation Operations

- **Operation Ajay** - It is a major operation to evacuate its citizens who wish to return from conflict-hit ***Israel***.
- **Operation Kaveri** - It brought back several thousand Indian citizens from conflict-torn ***Sudan***.
- **Operation Ganga** - Is an operation executed by the Indian government to rescue Indians in the war hit ***Ukraine***.
- **Operation Devi Shakti** - Evacuation of Indians and Afghans and shipment of humanitarian assistance for the people of ***Afghanistan***.

18. Who among the following are part of the composition of Delimitation Commission?

1. A retired Supreme Court judge
2. A retired High Court judge
3. Union Home Minister
4. Chief Election Commissioner of India
5. Respective State Election Commissioners

Select the correct answer using the codes given below.

- All except 3
- All except 5
- All except 2 & 3

d. All five

Answer : c

## Delimitation

*The delimitation of constituencies for the Lok Sabha and State Legislative Assemblies is to be carried out on the basis of the first Census after 2026 (Census in 2031).*

- It is the act of *redrawing boundaries* of Lok Sabha and state Assembly seats to represent changes in population.
- **Constitution - Article 82 and 170** of the Constitution provide that the number of seats in the Lok Sabha and State Legislative assemblies as well as its division into territorial constituencies shall be readjusted after each Census.
- **Delimitation Commission** - It performs the delimitation processes under provisions of the Delimitation Commission Act.
- It was carried out after the 1951, 1961 and 1971 Census.
- **Exemption** - Several States such as Assam, Arunachal Pradesh, Nagaland and Manipur are left out from the exercise due to "security risks."
- **Appointed by - President of India**, and it works in collaboration with the Election Commission of India.
- **Composition**
  - A **retired Supreme Court judge**
  - **Chief Election Commissioner of India**
  - Respective **State Election Commissioners**.
- **Bar on court** - Commission's orders are final and cannot be questioned before any court.
- **Reserve seats** - It is also tasked with identifying seats reserved for Scheduled Castes and Scheduled Tribes.
- **42nd Amendment Act, 1976** - It froze the number of Lok Sabha seats as per the 1971 Census and put off delimitation for 25 years until the 2001 Census under Article 82.
- **84th Amendment Act, 2001** - Extended the deadline for delimitation to 2026.
- **Readjustment** - The boundaries of territorial constituencies were readjusted (without changing the number of seats) and *seats for SC and ST were determined as per the 2001 Census* and will again be carried out after 2026.

19. Consider the following statements.

1. It is the only Nano fertilizer approved by the Ministry of Agriculture and included in the Fertilizer Control Order.
2. It comes only in powdered form with 8% Nitrogen and 16% Phosphorus by volume.
3. It was launched by the Indian Council of Agricultural Research (ICAR).

How many of the above statement(s) with respect to Nano DAP fertilizers is/are correct?

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

Answer : a

## Nano DAP Fertilizers

*During Interim Budget 2024 the Central government announced the expansion of the application of Nano DAP on various crops in all agro climatic zones.*

- **Nano DAP** - It is the first in world, launched in 2023 **by IFFCO**
- IFFCO - **Indian Farmers Fertiliser Cooperative**.
- It a multi-state cooperative society which is wholly owned by Cooperative Societies of India, established in 1967.
- **Headquarters** - New Delhi.
- **Liquid nano urea** - IFFCO commissioned the Kalol liquid nano urea plant at Gujarat, the country's first in 2021.

Key aspects	Conventional DAP	Nano DAP
<b>About</b>	Di-Ammonium Phosphate is high in phosphorus (P) that stimulates root establishment and development, it is applied just before or at the time of sowing.	Contains 8% Nitrogen and 16% Phosphorus by volume.
<b>Usage</b>	It is the second most commonly used fertiliser in India after urea.	It is the only <i>Nano fertilizer</i> approved by the Ministry of Agriculture and included in the <i>Fertilizer Control Order</i> .
<b>Formation</b>	Granular form.	It comes <b>in liquid form</b> , it has an advantage in terms of surface area to volume, as its particle size is less than 100 Nanometre (nm).
<b>Efficiency</b>	Relatively less efficient	Benefits in terms of surface area to volume as the particle size is less than 100 nanometres.
<b>Cost effective</b>	50 kg of DAP is Rs 1350 which is more than twice the amount of Nano DAP.	500 ml of Nano DAP is equivalent to 50 kg bag of conventional DAP priced at only Rs 600.
<b>Logistics</b>	Relatively less convenient to store and use	Pocket friendly and relatively easier to store, transport & use.

20. Which of the following statements with respect to Society for Worldwide Interbank Financial Telecommunications (SWIFT) is **incorrect**?

- It creates a bank account that a bank holds with a foreign bank in the currency of the country where the funds are held.
- It follows the LIBOR, an interest rate used by major banks in the market for short-term loans.
- It assigns each financial organization a unique code known as a bank identifier code.
- It uses a pattern of recognition system to identify a cheque's originality.

Answer : c

### Society for Worldwide Interbank Financial Telecommunications



- SWIFT is a vast messaging network used by financial institutions to quickly, accurately, and securely send and receive information, such as money transfer instructions.
- It is the largest and most streamlined method for international payments and settlements.
- **Established-** In 1973.
- **Headquarters-** La Hulpe, Belgium.
- SWIFT is overseen by the Group of Ten countries' *G-10 central banks*.
- These countries are Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, Switzerland, the United Kingdom, and the United States.
- **Bank Identifier Code-** SWIFT works by assigning each member institution a unique ID code (a BIC number) that identifies the bank name and the country, city, and branch.
- It has been used to impose economic sanctions on Iran, Russia, and Belarus.
- **Nostro** is a bank account that a bank holds with a foreign bank in the currency of the country where the funds are held.
- **Magnetic Ink Character Recognition (MICR)** is a pattern recognition system used mostly by the bank industry to identify the document's originality and to enable the processing and approval of cheques and other papers.



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