



### CA Revision Module - Test 5 (March 2023)

1. Consider the following statements with respect to One World TB Summit

1. It was organised by India and World Health Organisation (WHO).
2. It was organised under India's vision of 'One Earth, One Health'.
3. The initiative 'TB Free Panchayat' was launched in this Summit.

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

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

Answer : b

### One World TB Summit

The 'One World TB Summit' was held in 2023 on the occasion of the World TB Day (March 24).

- **Organized by** - Union Ministry of **Health and Family Welfare (MoHFW)** and the '**Stop TB Partnership**'.
- It was organised under India's **vision of 'One Earth, One Health'**.
- **Initiatives** - **TB-free Panchayat**, Shorter TB Preventive Treatment (TPT) and Family-centric care model for TB
- **Theme of 2023 World TB Day** - 'Yes! We can end TB!'
- Leading the Way India TB Report 2023 by Ministry of Health and Family Welfare was also released during the event.
- **India's status** - It contributes the highest number of TB cases in the world and is infamously referred as the '**TB Capital of World**'.



2. Consider the following statements with respect to International Court of Justice (ICJ)

1. It is the official court of UN, established through Rome Statute.
2. Only states that are members of United Nation (UN) or International Court of Justice (ICJ) can become parties to ICJ.

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

### International Court of Justice (ICJ)

	ICJ	ICC
<b>Year</b>	1946	2002
<b>HQ</b>	The Hague, Netherlands	The Hague, Netherlands
<b>Relation with UN</b>	Official court of UN	Independent but can receive cases from UNSC
<b>Statute</b>	ICJ Statute	Rome Statute
<b>Parties</b>	Only states that are either member of UN or ICJ or both	Individuals either ratified member of ICC or accepted jurisdiction of ICC
<b>Jurisdiction</b>	Contentious Jurisdiction and Advisory opinions	Criminal Prosecution of individuals
<b>Subject matter</b>	Settle the legal dispute i.e. sovereignty, boundary disputes, maritime disputes, trade, natural resource	Trial criminal offenses i.e. genocide, crimes against humanity, war crimes, crimes of aggression
<b>Appeal</b>	No	Instituted by Appeal chamber
<b>India</b>	Member	Not a member

3. Consider the following statements with respect to Whip

1. It is mentioned neither in the Constitution of India nor in the Rules of the House nor in a Parliamentary Statute.
2. In India, all parties can issue whips to their members.

Which of the above statements is/are correct?

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

Answer : c

### Office of Whip

- **Term 'whip'** - It is derived from the old British practice of "whipping in" lawmakers to follow the party line.
- **Provisions** - It is **mentioned neither in the Constitution of India** nor in the Rules of the House nor in a Parliamentary Statute.
- The office of Whip is a *Parliamentary convention*.
- In parliamentary parlance, a whip may refer to both
  - **A written order** to members of a party in the House to abide by a certain direction, and
  - **A designated official of the party** who is authorised to issue such a direction.
- **Position** - In India, all parties can issue whips to their members
- Parties appoint a senior member from among their House contingents to issue whips.

- This member is called a chief whip, and he/ she is assisted by additional whips.
- **Function** - A whip may require that party members be present in the House for an important vote, or that they vote only in a particular way.
- **Degree of importance** of Whip - Whips can be of varying degrees of seriousness and can be inferred from the ***number of times an order is underlined***.

**A one-line whip  
Underlined once**

- Usually, to inform party members of a vote.
- Allows them to abstain in case they decide not to follow the party line.

**A two-line whip  
Underlined Twice**

- Directs them to be present during the vote.
- Abstention from voting invites more scrutiny from party.

**A three-line whip  
Underlined Thrice**

- Strongest whip.
- Employed on important occasions such as the second reading of a Bill or a no-confidence motion.
- Places an obligation on members to toe the party line.

4. Which of the following best describes the 'Doha Programme of Action (DPoA)'?

- a. It is a WTO trade negotiation, which aims to lower trade barriers all around the world and allowing for more global trade.
- b. It provides the framework for the establishment, maintenance and termination of diplomatic relations on a basis of consent between independent sovereign States.
- c. It is a defence deal between Australia, the UK and the US to help Australia deploy nuclear-powered submarines in the Pacific region.
- d. It is a 10-year plan to put world's 46 most vulnerable countries back on track to achieving the UN Sustainable Development Goals (SDGs).

Answer : d

## **Doha Political Declaration**

*The 5th UN Conference on the Least Developed Countries (LDC5) concluded with adoption of the 'Doha Political Declaration'.*

- The 2nd part of LDC5 conference focuses on implementing the Doha Programme of Action (DPoA).
- **Doha Programme of Action** - It is a **10-year plan (2022-2031)** to put world's **46 most vulnerable countries** back on track to achieving the UN Sustainable Development Goals (SDGs).
- **6 key focus areas** - Eradicating poverty, leveraging science & innovation, supporting structural transformation, enhancing international trade, addressing climate change and mobilizing international support.
- **5 key deliverables** - An online university, a graduation support package, a food stock holding solution, an investment support centre and a crisis mitigation and resilience building mechanism.
- **Doha Development Round** - It is a *WTO trade negotiation* whose goal was to lower trade barriers all around the world, allowing for more global trade.
- It is also known as the Doha Development Agenda.
- **Vienna Convention on Diplomatic Relations (1961)** - It provides the framework for the

establishment, maintenance and termination of *diplomatic relations* on a basis of consent between independent sovereign States.

- **AUKUS Deal** - It is a 2021 *defence deal* between Australia, the UK and the US to help Australia deploy nuclear-powered submarines in the Pacific region.

5. Consider the following statements with respect to the Rules for Registration and Regulation of Foreign Lawyers and Foreign Law Firms in India, 2022:

1. Foreign lawyers will not be permitted to appear before any Indian courts and tribunals and cannot practise Indian law.
2. Foreign lawyers are allowed to advice on Indian and international laws.

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

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

Answer : c

### Foreign lawyers in India

*The Bar Council of India (BCI) has allowed foreign lawyers and law firms to practise in India and notified in the official gazette.*

- BCI notified the Rules for 'Registration and Regulation of Foreign Lawyers and Foreign Law Firms in India, 2022'.
- **Rules** - The foreign lawyers and firms can now **set up offices in India** and practice transactional and corporate work on a reciprocal basis.
- They are entitled to register with BCI to practise in India if they are entitled to practise law in their home countries.
- Foreign lawyers will **only** be allowed to advice on **international laws**.
- They will **not be permitted** to appear before any Indian courts and tribunals and **cannot practise Indian law**.
- **2018 Bar Council of India vs A.K. Balaji** - Supreme Court judgment **forbade foreign law firms** or foreign lawyers from practising **in litigation or non-litigation** in India.

6. Consider the following statements regarding Basic Animal Husbandry Statistics

1. It provides production estimates of 5 Major Livestock Products (MLPs) such as Milk, Egg, Meat, silk and Wool.
2. It is released by Department of Animal Husbandry and Dairying under the Ministry of Agriculture & Farmers' Welfare.
3. According to the report, Rajasthan tops in both the wool and milk production.

How many of the above statements is/are correct?

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

Answer : a

### Basic Animal Husbandry Statistics, 2022

- It provides production estimates of **4 Major Livestock Products** (MLPs) Milk, Egg, Meat and Wool.
- It also contains information like livestock population as per latest 20th Livestock Census, import and export data of livestock etc.
- **Released by** - Department of Animal Husbandry and Dairying under **Ministry of Fisheries, Animal Husbandry & Dairying**.
- **Implemented by** - **Animal Husbandry Statistics (AHS)** Division of Department of Animal Husbandry & Dairying (DAHD).
- Livestock Census (LC) & Integrated Sample Survey (ISS) are the **2 components** of this statistics.
- **Findings** - Per-capita availability of milk (2021-22) is 444 gram/day.
  - **Top milk producing States** - Rajasthan, UP, MP.
  - **Top meat producing States** - Maharashtra, UP, West Bengal.
  - **Top wool producing states/UTs** -Rajasthan, J&K, Gujarat.
  - **Top egg producing States** - Andhra Pradesh, Tamil Nadu, Telangana.

7. Bharat 6G Vision Document aims to roll out India's 6G project in 2 phases from 2023 to 2030. It was prepared by?

- NITI Aayog
- Technology Innovation Group on 6G
- Indian Space Research Organisation
- Ministry of Science and Technology

Answer : b

## Bharat 6G Vision



India released "Bharat 6G Vision" document which eyes 6G services rollout by 2030 and launched the 6G research and development test bed.

- **Prepared by** - **Technology Innovation Group on 6G (TIG-6G)** that was constituted in 2021 by Department of Telecommunications (DoT) under Ministry of Communications.
- **TIG-6G** - It has members from various Ministries/Departments, research and development institutions, academia, standardization bodies, Telecom Service Providers and industry/
- **Aim** - To *design, develop and deploy 6G network* technologies that provide ubiquitous intelligent and secure connectivity for high quality living experience for the world.
- India will launch a *6G Mission* that holistically combines all associated technologies, supported by an adequate financial backup.
- **Implemented in** - 2 phases, the 1st one from 2023 to 2025 and the 2nd one from 2025 to 2030.
- **Significance** - It will provide an R&D platform to start-ups, researchers, industry and other broadband wireless applications in India like e-Governance, smart cities, rural Broadband or other Digital India initiatives under Atmanirbhar Bharat.

8. Consider the following statements regarding Indo-Pacific Oceans Initiative

1. It aims to restore maritime stability and strengthen international governance in the Indo-pacific region.
2. It is an initiative of the Government of India and builds upon the Security and Growth for All in the Region (SAGAR) initiative.

Which of the above statements is/are correct?

- 1 only
- 2 only

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

Answer : c

## Indo-Pacific Oceans Initiative

*Italy had decided to join in the Indo Pacific Ocean Initiative.*

- It is an open, **non-treaty-based initiative** for countries to work together for cooperative and collaborative solutions to common challenges in the region.
- **Genesis** - It is an **initiative of the Government of India** and builds upon the "Security and Growth for All in the Region" (SAGAR) initiative.
- It was announced by India at the 14th East Asia Summit (EAS) held in Bangkok, Thailand in 2019.
- **Aim** - To **restore maritime stability** and strengthen international governance in this strategically vital region.
- **Knowledge Partners** - **Indian Council of World Affairs** (ICWA) among others.
- **7 pillars** - Maritime security, Maritime ecology, Maritime resources, Capacity building & Resource sharing, Disaster Risk Reduction Management, Science, Technology & Academic Cooperation and Trade, Connectivity & Maritime Transport.
- **Partners** - It includes all major dialogue partners of ASEAN and Japan, Australia and the US.
- **Significance** - It would also be an important contribution to the UN Decade of Ocean Science for Sustainable Development being observed from 2021-2030.

9. The term *Carrageenan*, sometimes seen in the news recently, refers to?

- a. It is an exotic seaweed species native to Indo-Pacific Ocean.
- b. It is a doping substance that has been banned by World Anti-doping Agency.
- c. It is a marine horseshoe crab living in shallow coastal waters on soft sandy or muddy bottom.
- d. It is a substance extracted from seaweeds for thickening or emulsifying agent in food products.

Answer : d

## Kappaphycus alvarezii

*The coral reefs of Valai Island in the Keelakarai group and Krusadai Island of Mandapam group were dying due to stress from Kappaphycus invasion.*

- **Kappaphycus alvarezii** is a red alga (seaweed) and its actual live colour is green or yellow.
- **Habitat** - Native to the Indo-Pacific region.
- It has been widely introduced and cultivated in tropical regions for commercial purposes.
- **Significance** - Used in the production of an industrially lucrative polymer called Carrageenan.
  - **Carrageenan** - A substance extracted from red and purple seaweeds, used as a thickening or **emulsifying agent in food products**.
- **Impact** - It attaches to the coral colonies and starts forming a thick gelatinous unbreakable mat over them, eventually *smother and kill corals*.
- Seagrass beds, which are Dugong's prime foraging grounds are likely to be impacted.

## Horseshoe crab species

- Scientists have urged Odisha government to immediately come up with a robust protection mechanism for horseshoe crabs.

- **4 extant species** - American, tri-spine, coastal and marine
- **In India** - 2 species (coastal horseshoe crab and the mangrove horseshoe crab)
- Odisha is their largest habitat in India.
- It is in the Schedule IV of the Wildlife Protection Act 1972, under which the catching and killing of a horseshoe crab is an offence.

10. Consider the following statements with respect to Asiatic Lions

1. Asiatic lions are larger than African lions.
2. It is categorised as Endangered in IUCN Red List.
3. Barda Wildlife Sanctuary in Gujarat was approved as the second home for Asiatic lions.

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

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

Answer : a

## Asiatic Lions

*Gujarat government has proposed a 2nd home for Asiatic lions in Gujarat at Barda Wildlife Sanctuary (BWS).*

- Centre has given in-principle approval to make **Barda as 2nd home for Asiatic Lions in Gujarat** as proposed by Project Lion.
- **Project Lion** - A landscape ecology-based conservation of Asiatic Lion in Gujarat by integrating conservation and eco-development.
- It was launched in 2020 on lines of Project Tiger and Project Elephant.
- **Asiatic Lions** - They are slightly smaller than African lions.
  - Scientific Name - Panthera leo leo.
- Habitat - They are found only in India, in 5 protected areas in Gujarat.
  - Gir National Park, Gir Sanctuary, Pania Sanctuary, Mitiyala Sanctuary, and Girnar Sanctuary.
- Conservation status
  - **IUCN Red List - Vulnerable (Recategorised in 2024)**
  - Wildlife (Protection) Act 1972 - Schedule I
  - CITES - Appendix I

11. Hyderabad Charter, sometimes seen in the news recently, is associated with?

- a. A 'Citizen's Charter' by Greater Hyderabad Municipal Corporation for new ward offices to redress public grievances in a fixed time frame
- b. To address and resolve gender gaps in physics education and research in India
- c. An integral aspect of the New Education Policy (NEP) 2020 focused on Early Childhood Care and Education
- d. Providing a platform for urban leaders to exchange knowledge and ideas, fostering innovative solutions to urban challenges

Answer : b

## Hyderabad Charter

- The Hyderabad Charter was drafted by the Gender in Physics Working Group of the Indian

Physics Association in 2019, during a national conference organised at the University of Hyderabad.

- The Hyderabad Charter aims **to address and resolve gender gaps in physics education and research in India**.
- It is an excellent and thorough roadmap for physicists across India to follow and implement to create a level playing field for all.
- The gender gap in physics is higher than any other Science fields.
- **Fundamental Principles of Hyderabad Charter**
  - People of all genders have equal potential to excel in all aspects of physics practice.
  - Utilizing the talents of all is essential for the physics enterprise to achieve its full potential.

12. Consider the following statements with respect to Osaka Blue Vision

1. It was agreed at the G20 Osaka Summit, 2019.
2. It aims to reduce additional pollution by marine plastic litter to zero by 2050.

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

Answer : c

### Osaka Blue Ocean Vision

- Osaka Blue Ocean Vision was agreed at the G20 Osaka Summit, 2019
- It **aims to reduce additional pollution by marine plastic litter** to zero by 2050 through a comprehensive life-cycle approach.
- This includes reducing the discharge of mismanaged plastic litter by improved waste management and innovative solutions.
- It is in line with SDG 14, Conserve and sustainably use the oceans, seas and marine resources.
- Plastic waste makes up 80% of all marine pollution.

13. Consider the following statements with respect to Marburg virus disease (MVD)

1. Marburg and Ebola diseases are both similar, rare diseases, although caused by different viruses.
2. Human-to-human transmission of Marburg virus can occur through direct contact.

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

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

Answer : d

### Marburg virus disease (MVD)

- Marburg virus disease (MVD), earlier known as Marburg hemorrhagic fever, is a severe, often fatal hemorrhagic fever.
- It is a highly virulent disease that causes haemorrhagic fever, with a fatality ratio of up to 88%.

- It is in the same family as the virus that causes Ebola virus disease.
- **Marburg and Ebola diseases are both similar, rare diseases, although caused by different viruses.**
- It was first detected in 1967 after simultaneous outbreaks in Marburg and Frankfurt in Germany and in Serbia.
- Subsequently, outbreaks and sporadic cases have been reported in Angola, Democratic Republic of the Congo, Kenya, South Africa.
- Human infection with Marburg virus disease initially results from prolonged exposure to mines or caves inhabited by Rousettus bat colonies.
- **Human-to-human transmission of Marburg virus can occur through direct contact.**
- It can spread through broken skin or mucous membranes with the blood, secretions, organs or other bodily fluids of infected people, and with surfaces and materials (e.g. bedding, clothing) contaminated with these fluids.
- **Symptoms** - Illness caused by Marburg virus begins abruptly, with high fever, severe headache and severe malaise. Muscle aches and pains are a common feature.
- **Treatment** - There is currently no available treatment for MVD.
- Supportive care, including providing adequate hydration, pain management and treatment of symptoms as they arise under professional care remains the safest and most effective way to manage MVD.

14. PM MITRA Scheme, often seen in the news, was launched by?

- Ministry of MSME
- Ministry of Textiles
- Ministry of Heavy Industries
- Ministry of Commerce and Industry

Answer : b



### PM MITRA Scheme

- PM MITRA - **Pradhan Mantri Mega Integrated Textile Region and Apparel.**
- PM MITRA scheme was launched in 2022.
- **PM MITRA Parks** is inspired by the **5F vision** of Hon'ble Prime Minister - Farm to Fibre to Factory to Fashion to Foreign.
- It will help in creating world-class industrial infrastructure which would attract large scale investment including FDI and encourage innovation and job creation within the sector.
- **The Ministry of Textiles will oversee the execution of PM MITRA Parks.**
- The Parks are to come up in states such as Tamil Nadu, Telangana, Gujarat, Karnataka, Madhya Pradesh, Uttar Pradesh and Maharashtra.
- A **Special Purpose Vehicle** owned by *Centre and State Government* will be set up for each park which will oversee the implementation of the project.
- The Ministry of Textiles will provide financial support in the form of Development Capital Support up to Rs. 500 crore per park.

15. Mission Sahbhagita, sometimes seen in the news, is associated with?

- Rail Safety
- Green Shipping
- Wetland conservation
- Malnutrition free India

Answer : c

### Mission Sahbhagita

- **Aim - To promote the wise use and participatory conservation of wetlands.**
- It was launched by the Ministry of Environment, Forest and Climate Change (MoEF&CC) on the occasion of Azadi Ka Amrit Mahotsav.
- 'Save Wetlands Campaign' is part of this Mission.
- **National Plan for Conservation of Aquatic Ecosystems (NPCA)** - Is a centrally-sponsored scheme that manages and conserves wetlands and lakes in India.
- NPCA was formed in 2015 by combining the National Wetlands Conservation Programme and the National Lake Conservation Plan.
- **Wetlands Rejuvenation Programme** - Aims to undertake systematic rejuvenation of selected wetlands on the basis of well-defined.
- The Wetlands Rejuvenation Programme is part of the National Plan for Conservation of Aquatic Ecosystems (NPCA).
- **Mission LiFE** - An India-led global mass movement to nudge individual and community action to protect and preserve the environment.

16. Which one of the following best describes the term *Gravitational Lensing*?

- An astronomical phenomenon that makes celestial objects appear to move
- A theory that the universe expanded exponentially fast for a fraction of a second after the Big Bang
- A visual effect that occurs when a massive celestial body bends the path of light around it
- A hypothetical scenario which describes how the universe will end as a result of the Big Bang

Answer : c

## Gravitational Lensing

*Astronomers have discovered one of the biggest black holes ever found due to Gravitational lensing.*



- Gravitational Lensing is the phenomenon where a foreground object (a galaxy or a black hole) **bends the light** from a more distant object behind it.
- It warps the space around the massive foreground object, distorting the image of a background object into rings, arcs or multiple points of light.
- The foreground object acts as a gravitational lens and the distant object in the background is magnified.
- Gravitational lenses help reveal dark matter in galaxies.
- **Einstein ring** is an example of gravitational lensing.
- **Aberration of light** is an astronomical phenomenon that makes celestial objects appear to move. Gravitational lensing is the study of how light rays bend from their straight path due to the curvature of spacetime.
- **Cosmic inflation** is a theory that the universe expanded exponentially fast for a fraction of a second after the Big Bang.
- The **Big Crunch** is a hypothetical scenario for the end of the universe. It's based on Einstein's Theory of General Relativity and describes how the universe will end as a result of the Big Bang.



17. Consider the following:

It is a mini-lateral group operating in the Indian Ocean region with India, Sri Lanka, Maldives and Mauritius as its member countries. It provides an opportunity for India to address its own strategic concerns in the Indian Ocean while providing an opportunity for the island and littoral nations to address their own challenges.

Identify the forum using the above passage

- Coral Triangle Initiative

- b. Colombo Security Conclave
- c. Indo-Pacific Oceans Initiative
- d. Pacific Basin Economic Council

Answer : b

## Colombo Security Conclave (CSC)

- Colombo Security Conclave (CSC) is a mini-lateral group operating in the Indian Ocean region.
- **Member countries - India, Sri Lanka, Maldives and Mauritius.**
- **Observers** - Bangladesh and the Seychelles.
- The small group provides an opportunity for India to address its own strategic concerns in the Indian Ocean while providing an opportunity for the island and littoral nations to address their own challenges.
- The CSC countries are all members of the two region-wide Indian Ocean groupings, the **Indian Ocean Rim Association (IORA)** and the **Indian Ocean Naval Symposium (IONS)**.
- In March 2022, the group adopted an agenda of 5 pillars, that includes:

1. Maritime safety and security
2. Countering terrorism and radicalisation
3. Combating trafficking and transnational organised crime
4. Cybersecurity and protection of critical infrastructure and technology
5. Coral Triangle Initiative assistance and disaster relief

18. With reference to Millets, consider the following:

1. Water intensive
2. High Gluten content
3. High antioxidant activity
4. High tolerance to drought
5. Low requirement of chemical fertilizers



Select the correct answer using the code given below:

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

Answer : b

## Millets

- Millets are small-seeded grasses belonging to the botanical family Poaceae.
- They constitute an important source of food and fodder for millions of resource-poor farmers and play a vital role in ecological and economic security of India.
- They are good source of minerals like iron, zinc, and calcium.
- They are **gluten-free** and have a **low glycemic index**, making them ideal for people with celiac disease or diabetes.
- These millets are also known as "coarse cereals" or "cereals of the poor".
- Millets are **highly adaptive** to a wide range of ecological conditions.
- Indian millets are a group of nutritiously rich, drought tolerant and mostly grown in the arid and semi-arid regions of India.
- Indian Millets are **nutritionally superior to wheat and rice** as they are rich in protein, vitamins and minerals.

- India is among the top 5 exporters of millets in world.
- India is the largest producer as well as the largest exporter of cereal products in the world.
- The main **millet-growing states** in India are Rajasthan, Maharashtra, Karnataka, Andhra Pradesh, and Madhya Pradesh.

## Significance

- **Less Water intensive** - They are rain-fed grains which have low requirements of water and fertility when compared to other popular cereals.
- **Anti-oxidant property** - Millets with phytates, polyphenols, tannins, anthocyanins, phytosterols and pinacosanols present in it having important role in aging and metabolic diseases.
- **All millets possess high antioxidant activities.**
- **Lower Cholesterol** - Niacin in millet can help lower cholesterol.

19. Non-Steroid Anti-Inflammatory Drugs (NSAID) are highly toxic to vultures. Which of the following drug(s) fall under NSAID?

1. Diclofenac
2. Aceclofenac
3. Tolfenamic
4. Meloxicam

Select the correct answer using the codes given below:

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



Answer : b

## Vultures

- Vultures play a very important role in our ecosystem as the **primary removers of carrion**.
- Vultures constitute the natural animal disposal system and keep our environment clean.
- The decrease in Vulture population may result in an increase in population of rats and feral dogs (main scavenging species in the absence of vultures) and the spread of diseases.
- Drastic decrease of vulture population in the recent decades was notably due to the use of **Diclofenac**, a drug used to treat livestock which is toxic to vultures.
- When the vultures eat the carcass of an animal recently treated with Diclofenac, a non-steroidal anti-inflammatory drug (NSAID) it causes visceral gout.
- Visceral gout is a disease where uric acid crystals accumulate on organs, particularly the kidneys and resulted in kidney failure.
- After the findings, the government banned the use of Diclofenac in 2008.
- **Fatal four NSAIDs Vultures** - Diclofenac; Aceclofenac; Nimesulide; Ketoprofen
- **Alternatives** - Tolfenamic and Meloxicam were considered safe for vultures.

20. Which of the following best describes the term "Island Rule"?

- a. It refers to a phenomenon that occurs when a city experiences much warmer temperatures than nearby rural areas.
- b. They are new regulations introduced by the Pacific Islands Forum aimed at fostering sustainable development across island nations.
- c. It refers to a hypothesis that mammals change their size on islands depending on resources available in their environment.

d. It states that non-native species are more likely to become established and have major ecological impacts on islands than on continents.

Answer : c

## Island Rule

- ***Island Rule is a hypothesis that mammals change their size on islands depending on resources available in their environment.***
- It is the tendency of mammal populations on islands to have body sizes that are different from their mainland counterparts.
- Specifically, large mammals seem to shrink “referred to as dwarfism, while small mammals appear to enlarge known as gigantism.
- It states that small mammals like rats may evolve and turn bigger in size over time when they are isolated on an island with more resources and fewer predators.
- By the same token, larger mammals like elephants begin to develop smaller bodies if they happen to become isolated in an island where the availability of resources is scarce.

