

**Q: Which of the following statements is associated with Rhodamine B, recently seen in news?**

- Toxic and carcinogenic chemical used in food industry as food additive.
- The common DNA strand between Neanderthals and modern humans.
- Protein found in the flower Rhododendron, used in treating malnutrition.
- Recently developed vaccine against rheumatoid arthritis.

Ans: a

Explanation:

- Rhodamine B is a chemical commonly used for dyeing in the textile, paper, leather, and paints industry as a coloring agent that helps in attaining the red and pink spectrum.
- Although in powdered form, the chemical is green in colour, upon being added to water, it turns pink.
- It is a water soluble chemical generally used in incense and match sticks.
- Even if consumed in small quantities, the chemical is highly toxic and carcinogenic.
- The Food Safety and Standards Authority of India (FSSAI) has banned its usage in food products.

**Q: Consider the following statements with respect to the Macrophages:**

- Macrophages are a type of red blood cells involved in the detection and destruction of bacteria and other harmful organisms.
- They are involved in tissue repair and have an anti-inflammatory role.
- Macrophages present in the brain are termed microglia and in the liver, they are called Kupffer cells.

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

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

Ans: b

Explanation:

- Macrophages are a type of white blood cell that surrounds and kills microorganisms, removes dead cells, and stimulates the action of other immune system cells.
- They are specialized cells involved in the detection and destruction of bacteria and other harmful organisms.
- In addition, they can also present antigens to T cells and initiate inflammation by releasing molecules (known as cytokines) that activate other cells.
- Macrophages originate from monocytes, which themselves derive from the bone marrow.
- Macrophages confer innate immunity, which is typically the first line of defense against foreign antigens.
- Macrophages are also involved in tissue repair and immune system regulation.

**Q: Consider the following statements with respect to Kaji Nemu:**

- It is the State fruit of Arunachal Pradesh.
- As it is tolerant to abiotic stress, the fruit is cultivated all over India.
- It earned a Geographical Indication (GI) tag for its unique growth characteristics, flavor, shape and aroma.

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

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

Ans: b

Explanation:

- Kaji nemu (Citrus limon) is an oval-shaped elongated lemon with a smooth and thin peel.
- It was declared as the State fruit of Assam.

- It earned a Geographical Indication (GI) tag in Assam in 2019 for its unique growth characteristics, flavor, shape and aroma.
- It is grown only in Assam.
- It is also known as the “Queen of all citrus fruits” and has immune boosting qualities.

**Q: Consider the following statements with respect to the Debt Recovery Tribunals (DRTs):**

1. DRTs were established under the Insolvency and Bankruptcy Code (IBC) 2016.
2. Under IBC, DRTs adjudicate the proceedings of the insolvency resolution process for companies.
3. Banks, and financial institutions can approach the DRT for cases of recovery of debt greater than Rs 20 lakh.

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

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

Ans: a

Explanation:

- The Debt Recovery Tribunals (DRTs) and Debt Recovery Appellate Tribunals (DRATs) were established under the Recovery of Debts and Bankruptcy Act (RDB Act), 1993.
- A DRT functions as a quasi-judicial statutory body to adjudicate cases and facilitate the recovery of loans from banks and financial institutions.
- The proceedings of the insolvency resolution process will be adjudicated by the National Companies Law Tribunal (NCLT) for companies and the DRT for individuals.
- The Presiding Officer, appointed by the Central Government, heads the DRT.
- In 2020, the Indian Government raised the minimum limit for filing cases under DRTs to 20 lakh rupees.
- Appeals against DRT orders can be made to the Debt Recovery Appellate Tribunal (DRAT).
- DRAT is also the second court of appeal in respect of cases filed under The Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002.

**Q: Consider the following statements with respect to the Central Asian Flyway (CAF):**

1. CAF lies entirely within the Northern Hemisphere.
2. India is one among the countries in Central Asian Flyway.

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

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

Ans: d

Explanation:

- A flyway is a geographical region within which a single or a group of migratory species completes its annual cycle i.e. breeding, moulting, staging and non-breeding.
- The Central Asian Flyway (CAF) covers a large continental area of Eurasia between the Arctic and Indian Oceans and the associated island chains.
- CAF extends from the northernmost breeding grounds in Siberia to the southernmost non-breeding (wintering) grounds in West and South Asia, the Maldives and the British Indian Ocean Territory.
- The Central Asian Flyway is the shortest flyway in the world.
- Lying entirely within the Northern Hemisphere, it connects a large swathe of the Palearctic with the Indian subcontinent.
- 370 species of migratory bird from 3 flyways (CAF, East Asian Australasian Flyway and Asian East African Flyway) are reported to visit the Indian sub-continent during their annual cycle.
- India is one among the countries in Central Asian Flyway.