DATE: 05.11.2026

1) With reference to Sustainable Aviation Fuel (SAF), consider the following statements:
   1. It consists of specially processed aviation-grade hydrocarbons that are chemically similar to conventional Aviation Turbine Fuel (ATF).
   2. It alters the fundamental chemical nature, safety and performance characteristics of conventional aviation fuel.
   3. It can be produced from sustainable feedstocks such as waste oils, fats, municipal waste and non-food crops.
   4. It can be produced synthetically through processes that capture carbon directly from the atmosphere.

   Which of the statements given above are correct?
   (a) 1, 2 and 3 only
   (b) 1, 3 and 4 only
   (c) 2 and 4 only
   (d) 1, 2, 3 and 4

2) **Assertion (A):** Iron deficiency is the most common cause of anaemia worldwide, characterized by a significant reduction in blood haemoglobin concentrations.
   Reason (R): Iron is essential for building haemoglobin, so an iron shortage directly stops red blood cells from carrying enough oxygen.
   Which of the statements given above are correct?
   (a) Both Assertion (A) and Reason (R) are true, and Reason (R) is the correct explanation of Assertion (A).
   (b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A).
   (c) Assertion (A) is true, but Reason (R) is false.
   (d) Assertion (A) is false, but Reason (R) is true.

3) Consider the following statements regarding the Central Electricity Regulatory Commission (CERC):
   1. It regulates tariffs of all electricity-generating companies operating within India.
   2. It regulates inter-State transmission of electricity and determines tariffs for such transmission.
   3. The Central Electricity Regulatory Commission is a statutory body whose Chairperson is the Union Minister of New and Renewable Energy.

   Which of the statements given above are correct?
   (a) 1 and 2 only
   (b) 2 only
   (c) 3 only
   (d) 1, 2 and 3

4) Consider the following statements regarding the Snow Leopard:
   1. The Snow Leopard is native to the high mountain ranges of Central and South Asia and is classified as 'Vulnerable' on the IUCN Red List of Threatened Species.
   2. The Snow Leopard is generally active during dawn and dusk and, unlike lions and tigers, does not possess the ability to roar.

3. It has been designated as the official State Animal of the Union Territory of Ladakh as well as the State of Himachal Pradesh.

How many of the statements given above is/are ***not*** correct?

(a) Only one
(b) Only two
(c) All three
(d) None

5) What is the Sharjah Award for Best International Non-Fiction Book , recently in the news?

(a) An award given to non-Emirati authors for translating classical Arabic heritage texts into foreign languages.
(b) An award instituted by UNESCO and the Sharjah Book Authority to fund academic research on West Asian history.
(c) An annual honor reserved exclusively for Arabic-language non-fiction publications written by authors from the GCC region.
(d) An international literary award recognizing distinguished non-fiction works published in English by authors worldwide.

Explanation

1) Answer: (B)

- **Statement 1 is correct:** Sustainable Aviation Fuel (SAF) consists of hydrocarbons processed to meet strict aviation standards and is chemically very similar (or virtually indistinguishable) to conventional fossil-derived Aviation Turbine Fuel (ATF). Because of this, it is classified as a "**drop-in**" **fuel**.
- **Statement 2 is incorrect:** SAF does **not** alter the fundamental chemical nature, safety, or performance characteristics of conventional aviation fuel. It can be blended seamlessly with conventional jet fuel and used safely in existing aircraft engines and airport fueling infrastructure without requiring any modifications.
- **Statement 3 is correct:** SAF can be derived from various sustainable and renewable feedstocks, including used cooking oils, animal fats (lipids), municipal solid waste, agricultural residues, and non-food energy crops.
- **Statement 4 is correct:** SAF can also be produced synthetically (known as e-fuels or Power-to-Liquids / PtL) through processes that utilize renewable electricity to combine green hydrogen with carbon dioxide captured directly from the atmosphere or industrial exhaust.
- **Therefore, option B is the correct answer.**

2) Answer: (A)

Assertion (A) is correct: Anaemia occurs when the blood lacks enough healthy red blood cells or haemoglobin to carry adequate oxygen to tissues. Globally, iron deficiency is the leading cause of this condition.

Reason (R) is correct: Iron is the core building block required to synthesize haemoglobin. When dietary or stored iron runs low, haemoglobin production drops, which directly causes the symptoms and low blood counts associated with anaemia.

Why (R) explains (A): Reason (R) gives the direct biochemical reason why iron deficiency leads to anaemia described in Assertion (A)—without iron, haemoglobin cannot be built properly.

Therefore, option A is the correct answer.

3) **Answer: (B)**

- **Statement 1 is Incorrect :** CERC does **not** regulate tariffs for *all* electricity-generating companies in India. Under Section 79 of the Electricity Act, 2003, CERC's mandate covers only generating companies owned or controlled by the Central Government and those with a composite scheme for generation and sale of electricity in more than one State. Tariffs for intra-state generating companies are determined by their respective **State Electricity Regulatory Commissions (SERCs)**.
- **Statement 2 is Correct :** Under Section 79(1)(c) and (d) of the Electricity Act, 2003, CERC is explicitly tasked with regulating inter-State transmission of electricity and determining the tariffs for such inter-State transmission.
- **Statement 3 is Incorrect :** Although CERC is a **statutory body** (originally constituted under the Electricity Regulatory Commissions Act, 1998, and functioning under the Electricity Act, 2003), its Chairperson is **not** the Union Minister of New and Renewable Energy. CERC consists of a full-time Chairperson and three members appointed on the recommendation of a statutory Selection Committee, alongside the Chairperson of the **Central Electricity Authority (CEA)** as an ex-officio member.
- **Therefore option B is the correct answer.**

4) **Answer: (D)**

- **Statement 1 is correct:** The Snow Leopard (Panthera uncia) inhabits the high mountain ranges across 12 Asian countries. It is classified as 'Vulnerable' on the IUCN Red List, having been **reclassified from 'Endangered'** in 2017.
- **Statement 2 is correct:** Snow Leopards are primarily active **during dawn and dusk**. Unlike other large cats such as lions and tigers, their vocal folds lack a thick fibro-elastic pad, making them unable to roar.
- **Statement 3 is correct:** The Snow Leopard is officially designated as the **State Animal of Himachal Pradesh and the State Animal of the Union Territory of Ladakh**, the latter designation being made in August 2021.
- Hence, all statements are correct.
- **Therefore option D is the correct answer**

5) **Answer: (D)**

- The Sharjah Award for Best International Book is an **annual global award presented during the Sharjah International Book Fair (SIBF)** in the United Arab Emirates by the Sharjah Book Authority.
- Categories: It features distinct categories for international works written in English, specifically:
  - Best International Non-Fiction Book
  - Best International Fiction Book
- **Why in the News**: Indian author and publisher **Dr. Nirmala Lakshman** won the Sharjah Award for Best International Non-Fiction Book for her book *"The Tamils: A Portrait of a Community"* at the 45th Sharjah International Book Fair.
- Therefore, **option D** is the correct answer.

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