

**Q: Consider the following statement:**

1. India's domestic gas price is determined from the average of four global indices.
2. Hydraulic fracturing enhance oil and gas extraction.
3. Groningen gas field is located in Siberia.

Choose the correct option from the codes given below:

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) 1, 2 and 3

Ans: a

Explanation:

- Amid anxieties about building up energy reserves, the gas field in Groningen in the Netherlands has once again come under the spotlight.
- India's domestic gas price is determined from the average of four global indices viz U.S.'s Henry Hub, the U.K.'s National Balancing point, Canada's Alberta and Russian gas.
- The man-made or induced earthquakes can be pretty damaging. Examples of human activity that could lead to 'induced seismicity' are damming of rivers to create reservoirs, oil or gas extraction, and mining.
- To enhance energy extraction, waste water, sand and chemicals are injected into the earth at high pressure to create fractures in the rocks. This process, called "hydraulic fracturing", helps improve the interconnectivity of the pores in order to enhance oil and gas extraction.

**Q: Consider the following statement:**

1. Uttar Pradesh is the leading sugar producer in the country.
2. The sucrose levels in the sugarcane produced in Uttar Pradesh continue to increase.

Choose the correct option from the codes given below:

- a) 1 Only
- b) 2 Only
- c) 1 and 2
- d) None of the above

Ans: b

Explanation:

- Maharashtra is the leading sugar producer in the country, Uttar Pradesh has the highest sugarcane output value in the country.
- Uttar Pradesh alone accounts for around 83 per cent of the output value among the six northern states and it registered a growth of 43.9 per cent in its output value from Rs 248.6 billion to Rs 357.7 billion over the decade, as the sucrose levels in the sugarcane produced in the state continue to increase.

**Q: Consider the following statement regarding the challenges, which impact vultures in the State:**

1. Spread of invasive weeds.
2. Terminalia Arjuna trees

Choose the correct option from the codes given below:

- a) 1 Only
- b) 2 Only
- c) 1 and 2
- d) None of the above

Ans: c

Explanation:

- For one, **temple tourism** in the Sigur plateau is centred primarily around vulture habitats, such as Siriyur, Anaikatty and Bokkapuram. Over the last few years, there have been recorded instances of vultures abandoning

nesting sites located too close to temples inside these reserves, with activists calling for strict controls on the amount of people allowed to attend these festivals.

- Another threat is the **spread of invasive weeds** such as the **Lantana camara in vulture-landscapes**, which hinder the birds from scavenging as their large wing-spans require plenty of open area to safely land and to take to the skies in case of any major threats.
- Finally, due to the **illegal tapping of water along the streams running through these areas**, possible climate change, and forest fires, the **Terminalia arjuna trees**, that many vultures use as nesting sites are disappearing. Only through a multipronged approach of increasing the amount of food available to the birds and managing invasive species can vulture numbers start rebounding.

**Q: Which among the following production of drugs led to the crash in vulture populations across India/**

- a) Diclofenac
- b) Nimesulide
- c) Ketoprofen
- d) All the above

Ans: d

Explanation:

- It will ensure scientific management of carcass dumps and analyse cattle carcass samples in the state to ensure no harmful drugs are ingested by vultures. They will also ensure management of wild animal carcasses in protected and unprotected areas.
- Experts agree that the use of some **Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)** to treat cattle, such as **diclofenac, nimesulide, ketoprofen** among others, has led to the crash in vulture populations across India.
- It will also work to establish efficient regulatory mechanisms for ban on drugs found toxic to vultures like **NSAIDS** that have been banned under the Vulture Action Plan (2020-25).

**Q: Consider the following statement:**

1. Mission LiFE is designed with the objective to protect and preserve the environment for the period 2022 to 2027.
2. The concept of LiFE was introduced COP25 at Madrid (Spain).

Choose the correct option from the codes given below:

- a) 1 Only
- b) 2 Only
- c) 1 and 2
- d) None of the above

Ans: a

Explanation:

- The concept of LiFE was introduced by the Prime Minister at COP26 at Glasgow on 1 November 2021.
- It is also a part of India's nationally determined contributions (NDC).
- Mission LiFE is designed with the objective to mobilise at least one billion Indians and other global citizens to take individual and collective action for protecting and preserving the environment in the period 2022 to 2027.
- Within India, at least 80% of all villages and urban local bodies are aimed to become environment-friendly by 2028.