

CURRENT AFFAIRS



MCQ PRACTICE

ENVIRONMENT & GEOGRAPHY



# Week 106

## QUESTION 1

With reference to the atmospheric river, consider the following statements:

1. These are narrow, fast-moving bands of moisture and wind that transport large amounts of water vapour.
2. They are an essential source of rainfall, but they do not lead to flooding.
3. When atmospheric rivers pass over land, they can cause conditions similar to those of hurricanes.
4. They are most common in the high-latitudes.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

## QUESTION 2

The Cheetah Project Steering Committee have cleared the relocation of some of the cheetahs from Kuno National Park to:

- (a) Kanha Tiger Reserve
- (b) Panna National Park
- (c) Nauradehi Wildlife Sanctuary
- (d) Gandhi Sagar Wildlife Sanctuary

### QUESTION 3

With reference to the emissions trading scheme, consider the following statements:

1. An emissions trading scheme (ETS) or market is a regulatory tool to cut greenhouse gas emissions.
2. Under ETS, regulators set a cap or a limit on the total emissions load that can be released into the air.

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

## QUESTION 4

With reference to the B-heavy molasses (BHM), consider the following statements:

1. It is a byproduct of paper production.
2. It is used for the production of ethanol.

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

## QUESTION 5

The Mahadev Koli tribe, an indigenous forest-dwelling community, was recently in the news due to their rich reservoir of medicinal and ecological knowledge. The community resides in:

- (a) Brahmaputra Valley semi-evergreen forests
- (b) Western Himalayan Broadleaf Forests
- (c) North Western Ghats (Maharashtra)
- (d) South Western Ghats (Kerala)

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## Answers and Explanations

## QUESTION 1

With reference to the atmospheric river, consider the following statements:

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## 1.Explanation

- ✓ A large part of the United States witnessed heavy rain, strong winds and severe thunderstorms due to a type of storm known as an atmospheric river.
- ✓ Atmospheric rivers are narrow, fast-moving bands of moisture and wind, similar to rivers in the sky, that convey vast amounts of water vapour. While they provide necessary rainfall, they can also cause flooding, mudslides, and property damage. Hence, statement 1 is correct and statement 2 is not correct.
- ✓ “When atmospheric rivers pass over land, they can cause conditions similar to those of hurricanes with intense and rapid rainfall, cyclone force winds, and significantly increased wave heights,” according to the National Oceanic and Atmospheric Administration (NOAA). For example, in December 2010, a series of atmospheric rivers struck the United States West Coast, dumping 11 to 25 inches of rain in some regions. Hence, statement 3 is correct.



- ✓ Atmospheric rivers vary widely in size and power. However, they are typically 402 to 606 km broad and can extend longer than 1600 km, according to NOAA.
- ✓ Although atmospheric rivers exist all around the world, they are most prevalent in the middle latitudes. “They arise when large-scale weather patterns align, resulting in narrow channels or filaments of strong moisture movement. According to a PBS study, these originate over warm water, often tropical waters, and are driven towards the coast by low-level jet streams ahead of extratropical cyclone cold fronts. Hence, statement 4 is not correct.
- ✓ Therefore, option (b) is the correct answer.

## QUESTION 2

The Cheetah Project Steering Committee have cleared the relocation of some of the cheetahs from Kuno National Park to:

- (a) Kanha Tiger Reserve
- (b) Panna National Park
- (c) Nauradehi Wildlife Sanctuary
- (d) Gandhi Sagar Wildlife Sanctuary

## 2.Explanation

- ✓ Even as the Centre is in talks with Kenya, South Africa, and Botswana about relocating the next batch of cheetahs to Madhya Pradesh, the Cheetah Project Steering Committee is said to have approved the movement of some of the cheetahs from Kuno National Park to Gandhi Sagar Wildlife Sanctuary.
- ✓ The steering committee, on the other hand, urged that the movement of the cheetahs to Gandhi Sagar, while in the same state, be done with caution, taking into account stress factors such as heat when moving them by road. Gandhi Sagar is around 300 miles from Kuno.
- ✓ The decision, made at a meeting last week, comes despite ongoing concerns about the availability of adequate prey and the presence of leopards, which compete as co-predators.
- ✓ Gandhi Sagar Wildlife Sanctuary has been identified as a key link for long-term cheetah conservation, with the goal of establishing a metapopulation of 60-70 cheetahs spanning the Kuno-Gandhi Sagar terrain, which spans Madhya Pradesh and Rajasthan.
- ✓ Therefore, option (d) is the correct answer.

### QUESTION 3

With reference to the emissions trading scheme, consider the following statements:

1. An emissions trading scheme (ETS) or market is a regulatory tool to cut greenhouse gas emissions.
2. Under ETS, regulators set a cap or a limit on the total emissions load that can be released into the air.

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

### 3.Explanation

- ✓ A new study on the world's first-ever market for trading particulate emissions, which are tiny particles that can impact human health, revealed that employing the market mechanism helped reduce pollution by 20-30 per cent in an industrial cluster in Surat.
- ✓ An emissions trading scheme (ETS) or market is a regulatory mechanism that reduces greenhouse gas emissions while providing financial incentives for enterprises to comply with regulations and invest in cleaner technology. Hence, statement 1 is correct.
- ✓ Under ETS, regulators establish a cap or limit on the total emissions load that can be discharged into the atmosphere. Instead of imposing penalties or show-cause notices, industries are issued emissions licenses or allowances that can be exchanged among themselves to ensure compliance. The term 'cap-and-trade' refers to emission markets. Hence, statement 2 is correct.



- ✓ Each permit enables enterprises to emit a particular amount of pollutants into the atmosphere, such as a kilogramme of particulate matter pollution or a tonne of carbon dioxide. Plants using pollution-reduction technologies save their permits and sell them to those who may require them to compensate for a compliance gap. This allows facilities with fewer resources to gradually transition to cleaner technology while staying within a budget, while others profit from trading.
- ✓ Regulators typically set a minimum floor price and a maximum ceiling price to ensure stability and make the scheme appealing. Regulators can also tighten the cap in response to pollution monitoring data.
- ✓ Therefore, option (c) is the correct answer.

## QUESTION 4

With reference to the B-heavy molasses (BHM), consider the following statements:

1. It is a byproduct of paper production.
2. It is used for the production of ethanol.

Which of the statements given above is/are correct?

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

## 4.Explanation

- ✓ With prices for ethanol produced from sugarcane juice and B-heavy molasses not having been revised since 2022, the Indian Sugar and Bio-Energy Manufacturers Association (ISMA) recently urged the government to align the minimum selling price of sugar and ethanol procurement prices with the fair and remunerative price (FRP) of sugarcane. B-heavy molasses (BHM) is a byproduct of sugar processing used to produce ethanol. Hence, statement 1 is not correct and statement 2 is correct.
- ✓ ISMA has approached the Commission for Agriculture Costs and Prices (CACP), an agency inside the Ministry of Agriculture and Farmers' Welfare. The CACP recommends the FRP for sugarcane, which is then authorised by the Cabinet Committee on Economic Affairs.
- ✓ The Centre sets pricing for ethanol produced from sugarcane and its byproducts in three categories: ethanol from C-heavy molasses, ethanol from B-heavy molasses and ethanol from sugarcane juice/sugar syrup.

The government last amended the procurement costs for ethanol made from B-heavy molasses and sugarcane juice/sugar/sugar syrup in November 2022. Since then, they have stayed unchanged at Rs 60.73 and Rs 65.61 per litre, respectively. Therefore, option (b) is the correct answer.

## QUESTION 5

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- (a) Brahmaputra Valley semi-evergreen forests
- (b) Western Himalayan Broadleaf Forests
- (c) North Western Ghats (Maharashtra)
- (d) South Western Ghats (Kerala)

## 5.Explanation

- ✓ The Mahadev Koli tribe, an indigenous forest-dwelling population in Maharashtra's North Western Ghats, is mostly absent from mainstream environmental concerns. However, a recent study reveals the tribe's vast pool of medicinal and ecological knowledge, which could be critical in improving global climate resilience.
- ✓ The Watershed Organisation Trust – Centre for Resilience Studies in Pune conducted the study, which emphasises that the Mahadev Kolis live in one of the world's top eight biodiversity hotspots, but their local ecological knowledge (LEK), particularly regarding medicinal trees, is largely undocumented in the scientific literature.
- ✓ These communities have the potential to detect small ecological changes in the forest, which is crucial in the context of climate change.
- ✓ Therefore, option (c) is the correct answer.