



## Daily Current Affairs Prelims Quiz 12-09-2025 (Online Prelims Test)

1) Consider the following statements with reference to Vitamin B12

1. It serves essential functions in the body including forming DNA, maintaining proper nerve and brain function.
2. Megaloblastic anemia, a condition that lowers the oxygen-carrying capacity of blood, caused by B12 deficiency.
3. Low B12 levels in blood leads to decrease in blood pressure, this this damages heart vessels overtime.
4. Low B12 levels causes heart attacks and stroke.

Choose the correct statements using the code given below:

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

Answer : c



### Explanation

- **Statement 1 is correct** - **Vitamin B12**, also known as **cobalamin**. B12 *is largely present in animal food items like eggs, milk, fish, poultry and meat.*
- It serves essential functions in the body, including *forming DNA* and healthy red blood cells, *maintaining proper nerve and brain function, and converting food into energy.*
- **Statements 2, 4 are correct** - B12 deficiency can result in a spectrum of symptoms and health complications, ranging from mild fatigue and weakness to severe neurological disorders and anemia.
- Low B12 levels causes, *Megaloblastic anemia*, a condition that lowers the oxygen-carrying capacity of blood.
- If B12 levels are low, the body is unable to effectively convert homocysteine to useful compounds.
- High homocysteine is toxic to blood vessels, causing them to become rigid and less flexible.
- Elevated homocysteine can also make the blood more likely to form clots, *increasing the risk of blockages that cause heart attacks and stroke.*
- **Statement 3 is incorrect** - Low B12 levels in blood leads to **increase** (not decrease) in blood pressure, this this damages heart vessels overtime.

To know more, click [here](#)

2) Which of the following are the effects of artificial sweetener intake?

1. Cardiovascular risks
2. Neuro inflammation
3. Cognitive decline
4. Increased risk of insulin resistance

Choose the correct code given below:

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

Answer : d

### Explanation

- **1 is correct** - Recent findings of the study shows artificial sweeteners (ASs) may have negative health effects, including a 62% faster cognitive decline in adults under 60.
- Even moderate intake (66 mg/day) led to 35% faster decline compared to low intake (20 mg/day).
- High intake linked to 62% faster global cognitive decline. Consumption equivalent to a 1.3-1.6-year increase in brain age.
- **2 is correct** - Sweeteners contribute to oxidative stress, which refers to an imbalance between harmful free radicals and the body's ability to detoxify them, which can damage brain cells.
- This, coupled with **Neuroinflammation** an inflammatory response within the brain could impair brain function and promote cognitive decline over time.
- **3 is correct** - Studies have linked consumption of artificially sweetened beverages to increased risks of heart attack, stroke, and general mortality, similar to sugary drinks.
- Erythritol to accelerate clotting of blood, leading to cardiovascular risks.
- **4 is correct** - Artificial Sweeteners can alter the composition of gut bacteria, leading to dysbiosis (imbalance), reduced production of helpful short-chain fatty acids, and increased risk of insulin resistance.

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3) Consider the following statements

**Statement 1:** Cloudbursts can be caused by factors such as monsoons, orographic lifts, thunderstorms, and climate change.

**Statement 2:** Cloudbursts frequently occur in the Himalayas, Western Ghats, Northeastern hill states, and coastal regions of India.

Select the correct answer using the codes given below:

- a. Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b. Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c. Statement-I is correct but Statement-II is incorrect
- d. Statement-I is incorrect but Statement-II is correct

Answer : b

### Explanation

- **Cloudburst** is a sudden, localized downpour of extreme rainfall, dumping 100 mm or more of water in a few minutes to an hour over a small area, typically in mountainous or desert regions.
- **Statement 1** correctly lists the causes of cloudbursts, including monsoons, orographic lifts, thunderstorms, and climate change.
- **Statement 2** correctly identifies the regions where cloudbursts frequently occur in India.
- However, the occurrence in these regions is due to geographical and climatic factors rather than being a direct explanation or cause of the factors listed in Statement 1.
- So, **Option b is the correct answer.**

To know more about **cloudbursts** in detail, click [here](#)

4) Consider the following statements about BioE3 Challenge for Youth

1. Its objective is to empower grassroots innovators, foster youth-led change, and strengthen India's journey towards self-reliant bio-economy.
2. Currently, the participation is open to university students, researchers, faculty and startups only.

Select the correct answer using the code given below:

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

Answer : a

### Explanation

- **Statement 1 is correct - BioE3 (Biotechnology for Economy, Environment and Employment)**
- BioE3 objective is to empower grassroots innovators, foster youth-led change, and strengthen India's journey towards a sustainable and self-reliant bio-economy.
- **Statement 2 is incorrect** - The participation is open **to school students (Classes 6-12)**, university students, researchers, faculty, startups and Indian nationals.
- Designing safe-by-default biological solutions addressing challenges in health, agriculture, environment and industry.

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5) **Erythritol, Sorbitol and Tagatose** recently seen in news are?

- a. Antibiotics
- b. Artificial sweeteners
- c. Illicit drugs
- d. Pesticides

Answer : b

### Explanation

- Recently, A new Brazilian study has found that people who consumed certain number of artificial sweeteners experienced 62 % decline in their ability.
- **Artificial sweeteners** are low-calorie sweeteners referred to as non-nutritive sweeteners.
- It is a chemicals used to sweeten foods and beverages. It found in many diet sodas, sugar-free gums, low-calorie desserts and various processed foods.
- Some common types of artificial sweeteners are Aspartame, Saccharin, Acesulfame-K, Sucralose, Neotame, Advantame, Erythritol, Xylitol, Sorbitol, Steviol Glycosides and tagatose.

To know more, click [here](#)