

# **UPSC CURRENT AFFAIRS MCQS 10-03-2024**

### Q1:

Consider the following statements regarding Agni-5 ballistic missile:

- 1. It is India's longest-range ballistic missile with a range exceeding 8,000 kilometers.
- 2. It is equipped with MIRV technology, allowing it to carry multiple warheads for independent targeting.
- 3. It is crucial for India's strategic deterrence, providing a credible nuclear threat.

How many of the above statements are correct?

**A:** Only one

**B:** Only two

C: All three

D: None

**Answer:** B

## **Explanation:**

Recently, Prime Minister of India had announced the successful test-firing of Agni-5 ballistic missile with Multiple Independently Targetable Reentry Vehicle (MIRV) technology by the Defence Research and Development Organisation (DRDO) under Mission Divyastra. Agni-5 holds the distinction of being India's longest-range ballistic missile, capable of striking targets at distances exceeding 5000 kilometers. **Hence, statement 1 is incorrect.** 

Agni-5 is developed indigenously by the Defence Research and Development Organisation (DRDO), signifies a significant achievement in India's defense technology sector. This missile incorporates cutting-edge technologies, including Multiple Independently Targetable Reentry Vehicle (MIRV) technology, enhancing its effectiveness and versatility. Equipped with MIRV technology, Agni-5 has the ability to carry and deliver multiple warheads to different targets with precision, bolstering India's strategic deterrence capabilities. **Hence, statement 2 is correct.** 

Utilizing high-accuracy sensor packages and indigenous avionics systems, Agni-5 ensures precise targeting, thereby maximizing its operational effectiveness. It plays a crucial role in augmenting India's strategic deterrence posture, providing a credible nuclear deterrent against potential adversaries and bolstering national security. Test launches of Agni-5 are typically conducted from Dr. A.P.J. Abdul Kalam Island in Odisha, showcasing India's infrastructure for missile testing and development. **Hence, statement 3 is correct.** 

## Q2:

The Gorsam Kora festival is an annual festival that celebrates the friendship between India and Bhutan and features cultural performances and Buddhist rituals. This festival takes place on a 93-foot tall stupa. The festival began with an invocation led by Thengtse Rinpoche, followed by prayers at the Khinzemane holy tree. This festival has been celebrated from 7th March to 10th March 2024 in which of the following states of India?

A: Assam

**B:** Nagaland

C: Sikkim

D: Arunachal Pradesh

**Answer:** D

### **Explanation:**

Recently, the Gorsam Kora Festival celebrated at Zemithang, Tawang district of Arunachal Pradesh. The Gorsam Kora festival is an annual festival that celebrates the friendship between India and Bhutan and features cultural performances and Buddhist rituals. The festival takes place at Gorsam Chorten, a 93-foot tall stupa built in the 13th century by a local monk. The festival began with an invocation led by Thengtse Rinpoche, followed by prayers at the Khinzemane holy tree. The Khinzemane holy tree is thought to have been planted by the 14th Dalai Lama in 1959 when he traveled to India via the Khinzemane-Zemithang route in Tawang. The theme of 2024 festival is 'Zero Waste Festival', with a cleanliness drive organized by the Further and Beyond Foundation. **Hence, option (d) is correct.** 



### Q3:

Consider the following statements about the Bhojshala Temple-Kamal Maula Mosque complex, recently seen in news:

- 1. It is a protected monument by the Archaeological Survey of India (ASI), situated in Dhar district of Madhya Pradesh.
- 2. It was founded by a patron of learning and the greatest monarch of the Chandela Dynasty, Raja Bhoja.

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

**Answer:** A

#### **Explanation:**

Following the survey at Gyanvapi Mosque, the Archaeological Survey of India (ASI) is set to conduct a survey at Dhar Bhojshala in Madhya Pradesh. The ASI has been directed to utilize all available methods and cutting-edge equipment, such as Ground Penetration Radar System and carbon dating, to determine the age of the structure. Bhojshala, also known as Bhojasala or Bhoj Shala, is a historic temple situated in Dhar, Madhya Pradesh. Designated as a Monument of National Importance, Bhojshala is protected by the Archaeological Survey of India (ASI) under the Archaeological Sites and Remains Act, 1958. **Hence, statement 1 is correct.** 

The name Bhojasala originates from King Bhoja of the Paramara dynasty, renowned for his patronage of education and the arts. The architectural components of the structure belong to various periods but primarily date back to the 12th century, with Islamic tombs added between the 14th and 15th centuries. **Hence, statement 2 is incorrect.** 

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#### **Q4:**

Consider the following statement about Rhodamine B, recently seen in news:

- 1. It is a water-soluble xanthene dye.
- 2. It is used in cosmetics, ink and food colouring.
- 3. It is used for visualizing cell structures in biological staining.
- 4. Its consumption can damage cerebellum tissue.

How many of the above statements are correct?

A: Only one

**B:** Only two

**C:** Only three

D: All four

**Answer:** D

### **Explanation:**

Recently, the Karnataka government has banned the use of harmful colouring agents, Rhodamine B in cotton candy and Gobi Manchurian and warned of severe action against offenders. Rhodamine B (RhB) is a water-soluble chemical compound belonging to the family of xanthene dyes. **Hence**, **statement 1 is correct.** 

Rhodamine B is a bright pink to red fluorescent dye commonly used in industrial applications (textile, paper, leather, and paint industries), cosmetics, ink, food colouring and as a colouring agent in various consumer products. Hence, statement 2 is correct.

It exhibits strong fluorescence under ultraviolet (UV) light, making it useful in fluorescence microscopy, flow cytometry and various diagnostic assays. It is also employed in biological staining techniques for visualizing cell structures and in medical diagnostics for detecting specific biomolecules. **Hence**, statement 3 is correct.

If consumed regularly, Rhodamine B can cause severe damage to the cerebellum tissue in the brain and to the brainstem that connect the brain to the spinal cord. Preparation, packaging, importing, selling and serving food items

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containing Rhodamine B at wedding ceremonies and public events is punishable under the Food Safety Standards Act, 2006. **Hence, statement 4 is correct.** 

## **Q5**:

### Consider the following passage:

Recently, the Foreign Minister of this European country arrived in Delhi on a three-day visit to India, where he is scheduled to hold meetings with External Affairs Minister Dr. S. Jaishankar. This is a landlocked country in Eastern Europe. It shares its borders with Russia to the East and Northeast, Poland to the West and Lithuania and Latvia to the Northwest and Ukraine to the South. The highest point of this country is Dzyarzhynskaya Hara.

The above passage best describes which of the following European countries?

A: Hungary

**B:** Estonia

C: Belarus

D: Romania

**Answer:** C

#### **Explanation:**

Recently, the Foreign Minister Sergei Aleinik of Belarus arrived in Delhi on a three-day visit to India, where he is scheduled to hold meetings with External Affairs Minister Dr. S. Jaishankar. Belarus, officially known as the Republic of Belarus is a landlocked country in Eastern Europe. Minsk is the capital of Belarus. This country shares its borders with Russia to the East and Northeast, Poland to the West and Lithuania and Latvia to Northwest and Ukraine to South. The highest point in Belarus is Dzyarzhynskaya Hara (Dzerzhinskaya Hill), also known as Hara Dzyarzhynskaya. The major rivers in Belarus include the Dnieper, Western Dvina (Daugava) and Neman (Nemunas). This country has limited mineral resources, but it does have deposits of various minerals including peat, oil and natural gas, granite, dolomite (limestone), potash and phosphorites. **Hence, option (c) is correct.**