



UPSC CURRENT AFFAIRS MCQs 14-03-2024

Q1:

With reference to BrahMos missile, consider the following statements:

- 1. It is a two-stage missile, consisting of a solid propellant booster engine and a liquid ramjet.**
- 2. BrahMos was jointly developed by India and Russia 25 years ago.**

Which of the above statements is/are correct?

- A:** 1 only
B: 2 only
C: Both 1 and 2
D: Neither 1 nor 2

Answer: C

Explanation:

BrahMos is a supersonic cruise missile, the fastest in the world. It is a two-stage missile, consisting of a solid propellant booster engine and a liquid ramjet. The first stage brings the missile to supersonic speed, and the second stage takes the missile closer to Mach 3 speed. Hence statement 1 is correct.

This missile is a medium-range supersonic missile, which can be launched from submarine, ship, aircraft and land. It is the world's fastest supersonic cruise missile. BrahMos was jointly developed by India and Russia 25 years ago. Hence statement 2 is correct.

Q2:

What is one of the environmental advantages of aquamation compared to flame cremation?

- A:** Aquamation uses more energy.
B: Aquamation emits greenhouse gases.
C: Aquamation requires fossil fuels.
D: Aquamation uses less energy without emitting any greenhouse gases.



Answer: D

Explanation:

Aquamation, also known as alkaline hydrolysis, is a water-based process for the disposal (cremation) of a body.

The body is placed in a steel chamber and immersed in a mixture of water and strong alkali. Aquamation is considered a more natural, ethical and environmentally friendly alternative to cremation or burial. This flame uses about 10% of the energy required for cremation while emitting no greenhouse gases. The device runs on electricity instead of fossil fuels. The process was patented by Amos Herbert Hobson in the year 1888 as a way to process animal carcasses into plant food.

Q3:

With reference to NavIC, consider the following statements:

- 1. It is an Indian Regional Navigation Satellite System or IRNSS.**
- 2. It provides accurate real-time location and timing services.**
- 3. It was developed by ISRO and ANTRIX.**

How many of the above statements are correct?

- A: Only one**
- B: Only two**
- C: All three**
- D: None**

Answer: C

Explanation:

NAVIC (NavIC) or Indian Regional Navigation Satellite System (IRNSS) is designed with a constellation of 7 satellites and a network of ground stations operating 24×7. Hence statement 1 is correct.

It was developed in India by the Indian Space Research Organization (ISRO) and its commercial arm ANTRIX. It is an autonomous regional satellite navigation system that provides accurate real-time position and timing services. Hence statements 2 and 3 are correct.



Q4:

Which organization developed India's first indigenous temperature data logger, known as Ambitag, for cold chain management?

- A:** Indian Institute of Technology, Bombay
- B:** Indian Institute of Technology, Delhi
- C:** Indian Institute of Technology, Ropar
- D:** Indian Institute of Science, Bangalore

Answer: C

Explanation:

AmbiTag is a USB-sized device that records the temperature of its surroundings. This is India's first indigenous temperature data logger for cold chain management. This device was developed by the Indian Institute of Technology, Ropar (IIT Ropar).

Ambitag can record temperatures from -40 to +80 degrees in any time zone. It can work for 90 days on a single charge. It is used to record real-time ambient temperatures during transportation of perishable products, vaccines, body parts and blood. It can also be used to monitor storage and freezers.

Q5:

Which of the following correctly defines wet-bulb temperature?

- A:** Temperature of moist thermometer in contact with air flow
- B:** Ambient temperature is measured directly in sunlight
- C:** The temperature of the ambient air is measured in the shade.
- D:** The temperature at which water vapor begins to condense from air.

Answer: A

Explanation:

Wet-bulb temperature is the temperature of a moist thermometer exposed to air flow. Its temperature can be measured using a thermometer with a bulb wrapped in wet muslin. The wet-bulb is lower than the ambient temperature due to the evaporative cooling effect. Wet-bulb temperature is a useful metric for assessing heat stress, as it takes into account both temperature and humidity. It is also



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