

## UPSC Daily Current Affairs | Prelim Bits 28-11-2020

### **BrahMos missile**

- It is a two-stage missile with solid propellant booster as first stage and liquid ramjet as the second stage.
- It is named as combination of names of Brahmaputra and Moskva rivers.
- They are designed and developed by BrahMos Aerospace, a joint venture company set up by Defence Research and Development Organisation (DRDO) and Mashinostroyeniya of Russia.
- There are different versions of the BrahMos, which can be fired from land, warships, submarines and Sukhoi-30 fighter jets.
- Land version has an extended range of 400 kms from its initial 290 kms.
- Submarine launched version has capability of being launched from around 50 meters below the water surface.
- BrahMos equipped Sukhoi-30s have a range of 1,500 kms at a stretch without mid-air refuelling.

### **Climate Emergency**

- The government of New Zealand will decide if a climate emergency should be declared in the country or not.
- Some of the countries that have already declared climate emergency include the UK, Portugal, Canada, France and, most recently, Japan.
- In 2019, the Oxford dictionaries declared “climate emergency” to be the word of the year.
- It defines “climate emergency” as a situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it.
- Climate emergency reflects the ethos, mood, or preoccupations of the passing year, and have lasting potential as a term of cultural significance.

### **Brain Fingerprinting**

- The accused in Hathras rape case will undergo brain fingerprinting.
- Brain fingerprinting is also known as Brain Electrical Oscillation Signature Profiling (BEOSP).
- It is a neuro psychological method of interrogation in which the accused's participation in a crime is investigated by studying their brain's response.

- The test does not involve a question answer session with the accused.
- The test is carried out via a process known as electroencephalogram, conducted to study the electrical behaviour of the human brain.
- In Selvi vs State of Karnataka case (2010), the Supreme Court observed that brain mapping test results cannot be admitted solely as evidence.
- However any information or material discovered during the tests can be made part of the evidence.

## **Bioluminescence**

- Beach waves in Chennai appeared blue when bio luminescent marine life made the sea appear a deep shade of blue.
- Bioluminescence or blue sea sparkle is the property of a living organism to produce and emit light through chemical reactions in proteins.
- It is generally higher in deep-living and planktonic organisms than in shallow species.
- Waves disturb the unicellular microorganisms, commonly known as dinoflagellates, and make them release blue light.
- Bioluminescence may occur as an anti-predatory response that may startle predators, causing them to hesitate, in a form of intimidation.
- Factors such as the pattern of the wind and the temperature of the ocean also determine the occurrence of bioluminescent waves.
- The phytoplankton shows up where seawater has low dissolved oxygen and high presence of Nitrogen.
- It could have been caused by heavy rain, fertilizers run off, discharge of sewage into the ocean.

## **Brereton War Crimes Report**

- It was released after a 4-year inquiry led by Army Reserve Major General Paul Brereton, following reports of alleged killings of unarmed Afghans.
- It held Australian Defense Force (ADF) accountable for allegations of grave misconduct by some of its members on Afghan operations.
- It stated that the soldiers carried out a number of gruesome acts.
- According to the report, the senior command was unaware of the war crimes that were being carried out.
- ADF Chief apologised to the people of both Afghanistan and Australia.
- Australian government would set up a panel to ensure accountability and transparency that sits outside of the ADF chain of command.

**Source: The Indian Express**



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