



## Daily Current Affairs Prelims Quiz 18-11-2022 (Online Prelims Test)

1) Consider the following statements regarding the CAPSTONE mission:

1. The mission's CubeSat was sent into space to test a unique lunar orbit called a near rectilinear halo orbit (NRHO).
2. NRHO is very elongated and is located at a precise balance point between the gravities of the Earth and the Moon.
3. The mission is jointly launched by the NASA and the European Space Agency (ESA).

Which of the above statement(s) is/are correct?

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only
- d. 1, 2 and 3

Answer : a

### CAPSTONE Mission

- CAPSTONE stands for Cislunar Autonomous Positioning System Technology Operations and Navigation Experiment.
- The mission is launched by the NASA.
- The mission's CubeSat was sent into space to test a unique lunar orbit called a near rectilinear halo orbit (NRHO).
- NRHO is very elongated and is located at a precise balance point between the gravities of the Earth and the Moon.
- The CAPSTONE spacecraft has been navigating an offbeat but efficient deep space path to the moon.
- This route is called a ballistic lunar transfer and it follows the gravitational contours in space to help the spacecraft reach its destination while spending very little energy.

### NRHO

- The NRHO orbit exists at a precise balance point between the gravities of the Earth and the Moon, meaning that it can be an ideal staging area for missions to the Moon and beyond.
- By verifying this orbit, CAPSTONE will help reduce risks for future spaceflight, and could also help establish long-term missions like the Gateway space station.
- Apart from NRHO, CAPSTONE will also demonstrate a key software technology— the Cislunar Autonomous Positioning System (CAPS).
- CAPS includes an innovative spacecraft-to-spacecraft navigation solution that will allow future missions to determine their location without having to rely on tracking from Earth.
- CAPSTONE can directly communicate with NASA's Lunar Reconnaissance Orbiter to determine its own position in space.
- This software solution will support NASA's Artemis missions.

2) Consider the following statements with respect to Review Petition:

1. Under Article 137, the Supreme Court has the power to review its judgments or orders.
2. A review petition can only be filed after one year of the pronouncement of the judgment.
3. The same judges who passed the original verdict also hear the review petition.

Which of the above statement(s) is/are correct?

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. 1, 2 and 3

Answer : c

### Review Petition

- According to the Constitution, any ruling by the Supreme Court is in the normal course final and binding, and it becomes the law of the land.
- It is considered final because it provides certainty for deciding future cases.
- However, the Constitution also gives, under Article 137, the Supreme Court the power to review its judgments or orders.
- This provision forms the legal basis for the filing of a review petition.

### Procedure to file a review petition

- A review petition must be filed within 30 days of pronouncement of the judgment.
- Except in cases of death penalty, review petitions are heard through circulation by judges in their chambers.
- They are usually not heard in open court.
- Lawyers in review petitions usually make their case through written submissions, and not oral arguments.
- The same judges who passed the original verdict usually also hear the review petition.

3) Consider the following statements with respect to the CITES:

1. It is an international agreement to ensure international trade in wild animals and plants does not threaten the species survival.
2. The CITES COP 19 or the World Wildlife Conference, 2022 took place in India.
3. India is one of the founding members of the CITES.

Which of the above statement(s) is/are **incorrect**?

- a. 1 and 2 only
- b. 2 and 3 only
- c. 1 and 3 only
- d. 1, 2 and 3

Answer : b

### Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

- It is an international agreement that aims to ensure international trade in wild animals and plants does not threaten the species' survival.

## CITES COP 19

- It is currently taking place in Panama and is also known as the World Wildlife Conference.
- The report launched during the CITES COP19 gave insights and analysis into the global trade in animals and plants regulated under the treaty.
- Trade in the CITES-listed species can have a wide range of conservation impacts, it highlighted.
- **India** - It has put forward a proposal to better protect a species of freshwater reptile called the red-crowned roofed turtle (*Batagur kachuga*) under the CITES.
- The turtle, native to India and Bangladesh, is at a high risk of extinction, it said.
- India also put forward proposal to move the turtle to Appendix I.

## CITES Appendices

- Appendix I - For species currently threatened with extinction.
- Appendix II - For species not necessarily threatened with extinction but demands intervention to keep a check on trade and avoid its utilisation that may threaten their survival.
- Appendix III - For a given species, when a specific country wants to regulate trade.

4) Which of the following statement(s) is/are associated with the term Solar Snake, recently in news?

- a. It is a formation of white crystalline snake like structures in the Sun's chromosphere.
- b. It is stream of charged particles released from the upper atmosphere of the Sun's corona.
- c. It is a change of temperature in the Sun's atmosphere, causing a disturbance in the space weather in the short-term.
- d. It is a stream of cooler plasma squeezed between magnetic field lines of the Sun.

Answer : d

### Solar Snake

- It is a stream of cooler plasma squeezed between magnetic field lines in the Sun.
- The European Solar Orbiter spacecraft watched an odd snake-like filament crawl across the sun's surface just before a massive plasma eruption.
- The filament originated in a sunspot, a cooler region on the sun's surface where the star's magnetic field is twisted.
- The snake took 3 hours to slither across the sun's disk at a speed of 170 kilometres per second.
- The odd occurrence was followed by a coronal mass ejection (CME), which is an eruption of hot plasma from the sun's upper atmosphere, the corona.
- The plasma of the snake was cooler than its surroundings as it made its way through the convoluted magnetic field lines emanating from the star's surface.

5) Consider the following statements with respect to Narco Test:

1. In narco test, the sodium pentothal drug is injected into the body of the accused, which transports them to a hypnotic state.
2. In India narco test cannot be conducted on any person without his or her consent.
3. Statements made during narco test are not admissible in the court in any circumstances.

Which of the above statement(s) is/are correct?

- a. 1 and 2 only
- b. 1 and 3 only
- c. 2 and 3 only

d. 1, 2 and 3

Answer : a

### **Narco Test**

- In a narco test, a drug called sodium pentothal is injected into the body of the accused, which transports them to a hypnotic or sedated state.
- In such a state the accused's imagination is neutralised and is understood as being incapable of lying, and is expected to divulge information that is true.
- Sodium pentothal or sodium thiopental is a fast-acting, short duration anaesthetic, which is used in larger doses to sedate patients during surgery.
- It belongs to the barbiturate class of drugs that act on the central nervous system as depressants.
- Because the drug is believed to weaken the subject's resolve to lie, it is sometimes referred to as a truth serum.
- The Supreme Court had ruled that narco analysis, brain mapping and polygraph tests cannot be conducted on any person without his or her consent.
- The apex court had noted in response to petitions questioning the validity of such tests, are illegal and a violation of personal liberty.
- However, statements made during narco analysis test are not admissible in the court, except under certain circumstances when the court thinks that the facts and nature of the case permit it.



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