



## UPSC CURRENT AFFAIRS MCQS 26-08-2023

Ques:1

Consider the following statements with reference to Chandrayaan-3 Mission

1. Soft landing involves crashing a spacecraft onto a celestial body without causing any damage.
2. Chandrayaan-1 mission indicated the presence of substantial amounts of ice molecules in the deep craters of south pole region of the moon.
3. India has become the third country globally to make a soft landing on the lunar surface.

How many of the above statements are correct?

- a) Only one
- b) Only two
- c) All three
- d) None

Solution: a

Soft landing refers to the controlled descent and subsequent touchdown of a spacecraft on a celestial bodies without causing significant damage to either the craft or its scientific instruments. India has become the fourth country after the erstwhile USSR, the U.S. and China to make a soft landing on the lunar surface. Chandrayaan-1 mission indicated the presence of substantial amounts of ice molecules in the deep craters of south pole region of the moon.

Ques:2

With reference to Seamless M4T, consider the following statements

1. It is an advanced technology platform designed to streamline and enhance various aspects of manufacturing processes for greater efficiency and productivity.
2. It performs the entire translation task in one go, unlike other large translation



models that divide translation across different systems.

Which of the above statements is/are correct?

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

Solution: B

SeamlessM4T is the first all-in-one multilingual multimodal AI translation and transcription model. It aims to allow people to communicate effortlessly through speech and text across different languages. It has been **launched by Meta**. It performs the entire translation task in one go, unlike other large translation models that divide translation across different systems.

Ques:3

With reference to Astra Missile, consider the following statements:

1. It is used for ground-to-ground attacks and has been widely used in naval operations.
2. The Missile has been developed by the Defence Research and Development Organisation (DRDO).
3. The missile has all-weather day and night capability.

How many of the statements given above is/are correct?

- a) Only one
- b) Only two
- c) All three
- d) None

Solution: b

Astra Missile is an indigenously developed air-to-air missile by India. It is



designed to be launched from fighter aircraft to engage and destroy hostile aircraft at various ranges. The Missile has been developed by the DRDO. The missile has all-weather day and night capability.

Ques:4

Consider the following statements with reference to Methanotrophic organisms

1. *Methylovibrio buryatense* 5GB1C is a bacterial strain that consumes methane.
2. Methanotrophs are a type of marine algae known for their ability to produce large amounts of methane, contributing to the greenhouse effect.

Which of the above statements is/are correct?

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

Solution: a

*Methylovibrio buryatense* 5GB1C is a bacterial strain that consumes methane. It is a type of Methanotrophs that consume low methane (500 ppm) at significantly higher rates.

Statement 2 is incorrect - Methanotrophs are a unique group of microorganisms that possess the remarkable ability to metabolize methane as their primary source of carbon and energy.

Ques:5

With reference to the Lunar Polar Exploration Mission (LUPEX) consider the following statements

1. It aims to obtain knowledge regarding the existence of Martian water-ice resources.



2. It is a joint mission of Japan Aerospace Exploration Agency (JAXA) and Indian Space Research Organisation (ISRO).
3. Lunar Electrostatic Dust Experiment (LEDEX), an instrument of the LUPEX, aims to detect and quantify water-ice mixed with lunar soil, achieving in-situ detection and measurement of water content.

How many of the statements given above is/are correct?

- a) Only one
- b) Only two
- c) All three
- d) None

Solution: a

LUPEX aims to obtain knowledge regarding the availability of **lunar water-ice** resources. LEDEX aims to detect the presence of charged dust particles and to confirm the dust levitation process in the volatile-rich polar region, and to estimate approximate dust size and flux of charged, levitated dust particles. LUPEX is a joint mission of Japan Aerospace Exploration Agency (JAXA) and Indian Space Research Organisation (ISRO).