



Daily Current Affairs Prelims Quiz 21-06-2022 - (Online Prelims Test)

1) Consider the following statements:

1. Inflation expectation refers to people's or households' expectations of what the inflation rate will be in the future.
2. An economy is said to undergo recession when it contracts for three consecutive quarters where a quarter is a period of four months.

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

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

Answer : a

Inflation

- At present, inflation in the US is closer to 9%.
- If the Fed remains steadfast in its resolve to bring down inflation to 2%, the US will go into a recession.
- Inflation is the rate at which prices rise.
- A 2% inflation implies the general price level in April this year was 2% more than what it was in April last year.
- A "rising" inflation rate implies that the rate (at which the prices rise) itself is increasing.
- Recession: The technical definition of a recession requires an economy to contract for two consecutive quarters; a quarter is a period of three months.
- In India, the economy is not expected to go into recession but will slow down further, which, in turn, will depress incomes, lead to job losses, or at the very least worsen the already worrying levels of unemployment in the country.
- Inflation Expectations: it refers to people's (or households' expectations of what the inflation rate will be in the future).
- And they matter because this expectation is what determines people's economic behavior.

2) Consider the following statements:

1. The Ministry of Environment, Forest, and Climate Change has banned polythene bags under 20 microns.
2. According to the Plastic Waste Management Rules, 2016, there is a complete ban on sachets using plastic material for selling gutkha, tobacco, and pan masala.

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

- a. 1 only
- b. 2 only

- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : b

Single-Use Plastic

- As the name suggests, it refers to plastic items that are used once and discarded.
- Single-use plastic has among the highest shares of plastic manufactured and used — from the packaging of items to bottles (shampoo, detergents, cosmetics), polythene bags, face masks, coffee cups, cling film, trash bags, food packaging, etc.

What are the items being banned?

- The items on which the Central Pollution Control Board (CPCB) has announced a ban are earbuds; balloon sticks; candy and ice-cream sticks; cutlery items including plates, cups, glasses, forks, spoons, knives, trays; sweet boxes; invitation cards; cigarette packs; PVC banners measuring under 100 microns; and polystyrene for decoration.
- The Ministry had already banned polythene bags under 75 microns in September 2021, expanding the limit from the earlier 50 microns.
- From December, the ban will be extended to polythene bags under 120 microns.
- According to the Plastic Waste Management Rules, 2016, there is also a complete ban on sachets using plastic material for storing, packing, or selling gutkha, tobacco, and pan masala.
- Ministry officials have said that the choice for the first set of single-use plastic items for the ban was based on “difficulty of collection, and therefore recycling”.

3) Consider the following statements regarding the Psyche mission:

- It is a journey to a unique metal-rich asteroid orbiting the Sun between Mars and Jupiter.
- It operates with the goal of exploring the building block of planet formation, the iron cores.

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

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

Answer : c

Psyche Mission

- The Psyche mission is a journey to a unique metal-rich asteroid orbiting the Sun between Mars and Jupiter.
- What makes the asteroid Psyche unique is that it appears to be the exposed nickel-iron core of an early planet, one of the building blocks of our solar system.
- NASA's Jet Propulsion Laboratory is responsible for mission management, operations, and navigation.

Goals

- Understand a previously unexplored building block of planet formation: iron cores.
- Look inside terrestrial planets, including Earth, by directly examining the interior of a differentiated body, which otherwise could not be seen.
- Explore a new type of world. For the first time, examine a world made not of rock and ice, but metal.

Objectives

- Determine whether Psyche is a core, or if it is unmelted material.
- Determine the relative ages of regions of Psyche's surface.
- Determine whether small metal bodies incorporate the same light elements as are expected in the Earth's high-pressure core.
- Determine whether Psyche was formed under conditions more oxidizing or more reducing than Earth's core.
- Characterize Psyche's topography.

4) Consider the following statements regarding Deep Space Optical Communications (DSOC):

1. It encodes data in electrons at electromagnetic wavelengths in order to communicate between a probe in deep space and Earth.
2. Using light instead of the radio allows the spacecraft to communicate more data in a given amount of time.

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

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

Answer : a

Deep Space Optical Communication (DSOC)

- The Psyche mission will test a sophisticated new laser communication technology that encodes data in photons at near-infrared wavelengths (rather than radio waves) to communicate between a probe in deep space and Earth.
- Using light instead of the radio allows the spacecraft to communicate more data in a given amount of time.
- The DSOC team is based at the Jet Propulsion Laboratory, NASA.

5) Consider the following statements regarding the Gaia space mission:

1. The Gaia space mission is a joint collaboration of NASA and the European Space Agency.
2. The objective of the mission is to make a three-dimensional map of stars throughout the milky way galaxy.
3. The spacecraft is placed in the opposite direction of the sun, in an orbit around the gravitational parking point in space, the Lagrange 2.

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 : b

Gaia Space Mission

- Gaia is an ongoing astronomical observatory mission launched in December 2013 by the European Space Agency (ESA) with the objective of creating the most accurate and complete

3D map of the Milky Way by surveying 1% or one billion of the galaxy's 100 billion stars.

- The almost hat-shaped spacecraft is fitted with two optical telescopes and the largest digital camera in space or the billion-pixel camera, with over 100 electronic detectors.
- This camera is precise enough to capture the diameter of a human hair from as far away as 1,000 km.
- The spacecraft is strategically stationed 1.5 million km from the Earth, in the opposite direction of the sun, in an orbit around the gravitational parking point in space called the Lagrange 2 or L2.
- It is from here that Gaia charts the accurate positions, motions, velocity, brightness, temperature, and composition of stars in the galaxy and other celestial objects beyond it.



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