

# VAID ICS LUCKNOW

## DAILY CURRENT QUIZ FOR UPSC

03/12/2024

### EXPLANATION

#### Qn. 1

**Answer: (a) 1 and 2 only**

**Explanation:**

- Statement 1 is **correct**. Ocean alkalinity enhancement is a key mCDR technique where minerals are added to seawater to enhance its carbon sequestration capacity.
- Statement 2 is **correct**. Artificial upwelling involves bringing deep, nutrient-rich waters to the surface to promote phytoplankton growth, which absorbs CO<sub>2</sub> through photosynthesis.
- Statement 3 is **incorrect**. For seaweed farming to effectively sequester carbon, the biomass often needs to be harvested and stored in long-term repositories; otherwise, decomposing seaweed releases the CO<sub>2</sub> back into the atmosphere.

#### Qn.2 b

Qn. 3

**Correct Answer: c) 1 and 2 only**

**Explanation:**

- **Statement a** is correct because LEO lies between 160 km to 2,000 km in altitude.
- **Statement b** is correct as satellites in LEO orbit at speeds of approximately 7.8 km/s to counteract Earth's gravity.

- **Statement c** is **incorrect** because LEO is generally used for communication satellites requiring low latency, such as those for internet and weather monitoring, not long-range continuous coverage, which is the domain of higher orbits like geostationary orbit (GEO).

Qn. 4

**Answer: (b) 1 and 3 only**

**Correct Answer: 3. A and C only**

**Explanation:**

- **Statement A** is correct because Windfall Gains Tax is generally imposed on companies making unexpected or extraordinary profits due to specific market conditions, such as a surge in oil prices.
- **Statement B** is incorrect because the tax is not applied globally; it varies based on the policies of individual countries.
- **Statement C** is correct because the primary goal of this tax is to redistribute excess profits to the government, which can then use the funds for public welfare or infrastructure projects.

5. a

- **Statement 1** is correct: ATF is a type of fuel designed specifically for aircraft engines that use turbines, like jet engines.
- **Statement 2** is incorrect: While biofuels are a potential source for future aviation fuels, ATF is primarily derived from crude oil through refining processes.

**Statement 3** is correct