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Daily MCQs: 18-11-2024

1. Antariksha Abhyas, conducted by Defence Space Agency, aimed at improving?

- A. Nuclear Warfare
- B. Space Warfare
- C. Cyber Warfare
- D. Bio Warfare

2. Consider the following statements about NATO.

- 1) Article 5 of the Washington Treaty provides for collective defence.
- 2) Article 5 of the Washington Treaty has never been invoked.
- 3) New Zealand and Israel are part of NATO Plus grouping.

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

- A. Only one
- B. Only two
- C. All three
- D. None

3. Consider the following statements about 'Carbon Capture and Storage (CCS)'?

- 1) CCS can contribute to stabilizing atmospheric CO₂ levels.
- 2) CCS can contribute to energy security.
- 3) CCS can help cut down on the cost of industrial processes.

Which of the above given 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

4. Consider the following statements about innocent passage.

- 1) Only merchant ships of foreign countries are allowed innocent passage through territorial sea.
- 2) Under UNCLOS, the right to the innocent passage can never be suspended.

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

- A. 1 only
- B. 2 only

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- C. Both 1 and 2
- D. Neither 1 nor 2

5. Consider the following statements.

Statement I: Stratospheric Aerosol Injection should be used judiciously to counter the temperature rise.

Statement II: Aerosols contain ozone depleting substances.

Which one of the following is correct in respect of the above statements?

- A. Both Statement I and Statement II are correct and Statement II is the correct explanation for Statement I
- B. Both Statement I and Statement II are correct and Statement II is not the correct explanation for Statement I
- C. Statement I is correct but Statement II is incorrect
- D. Statement I is incorrect but Statement II is correct

Solutions:

1. Answer: B

Explanation

- The **tri-service Defence Space Agency** has conducted its maiden tabletop Exercise 'Antariksha Abhyas 2024' aimed at bolstering the strategic readiness of the Indian armed forces in the domain of **space warfare**. Hence, **answer is option B**.
- The discussions highlighted the importance of monitoring and protecting critical assets and maintaining situational awareness in the increasingly contested space environment

2. Answer: B

About NATO

- Formed in **1949** with the signing of the **Washington Treaty**, NATO is a **political and military alliance of 32 countries from North America and Europe**.
- **Article 5 of the Washington Treaty** states that an attack against one Ally is an attack against all — is at the core of the Alliance, a promise of **collective defence**. Hence, **statement 1 is correct**.

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Did you know?

- Article 5 has been **invoked only once** in NATO history. It happened after the **September 11 attacks** on the United States in 2001, which led the alliance into Afghanistan. Hence, **statement 2 is incorrect.**

- NATO's Headquarters are located in **Brussels, Belgium.**

Members:

- At present, NATO has **32 members.**
- In 1949, there were **12 founding members** of the Alliance: Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom and the United States.
- The other member countries are: Greece and Turkey (1952), Germany (1955), Spain (1982), the Czech Republic, Hungary and Poland (1999), Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia and Slovenia (2004), Albania and Croatia (2009), Montenegro (2017) North Macedonia (2020), Finland (2023) and Sweden (2024).



NATO Plus:

- NATO Plus is a security arrangement that **brings together NATO and five aligned nations (Australia, New Zealand, Japan, Israel, and South Korea)** to enhance global defence cooperation. Hence, **statement 3 is correct.**

3. Answer: D

Explanation

What is meant by carbon capture and storage?

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- Carbon capture and storage (CCS) refers to technologies that can **capture carbon dioxide (CO₂) at a source of emissions before it is released** into the atmosphere.
- These sources include the **fossil fuel industry** (where coal, oil and gas are combusted to generate power) and **industrial processes** like steel and cement production.
- **Process involved**
 - **Capture:** CO₂ is captured at its source, typically from industrial facilities or power plants, before it is released into the atmosphere.
 - **Transportation:** The captured CO₂ is then transported, often by pipelines, to a suitable storage site.
 - **Storage:** The final step involves injecting the CO₂ into **geological formations** such as depleted oil and gas fields or deep saline aquifers.

Benefits of CCS

- By capturing CO₂ emissions from various sources, CCS can help **stabilize atmospheric CO₂ levels**, which is crucial for addressing climate change. Hence, **statement 1 is correct**.
- CCS can contribute to **energy security** by allowing for the continued use of domestic fossil fuel resources, which can help reduce reliance on **imported energy sources**. Hence, **statement 2 is correct**.
- CCS technologies can be integrated into industrial processes to improve efficiency and reduce emissions, leading to **cost savings and environmental benefits**. Hence, **statement 3 is correct**.

4. Answer: D

Explanation

- According to UNCLOS, the territorial sea can be defined as the area which extends up to **12 nautical miles** from the baseline of a country's coastal state. The territorial sea is under the jurisdiction of that particular country; however, foreign ships (both merchant and military) ships are allowed passage through it. Hence, **statement 1 is incorrect**.
- This type of passage of territorial passage of foreign ships is known as an **innocent passage**. However, the right to the innocent passage can be suspended if there is a threat to the security of the coastal state. Hence, **statement 2 is incorrect**.

5. Answer: A

Explanation:

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- **Stratospheric Aerosol Injection (SAI)** aims to **mimic the planet cooling effects** of volcanic eruptions by injecting sulfur dioxide directly into the stratosphere where it forms **sunlight-reflecting sulfate aerosols**.
- Although the overall goal of SAI is straightforward (reflect more sunlight), when it comes to considering how such an intervention could or would be implemented, a **complex patchwork of side effects and trade-offs emerges**. Hence, **statement I is correct**.
- **Aerosol sprays** contain **ozone depleting substances**, like sulfur dioxide, which can lead to **ozone layer depletion**. Hence, **statement II is correct and answer is option A**.

