

Q: Consider the following statement regarding the recently launched State of Environment Report, 2022:

1. Three of every four river in India has heavy toxic metals such as lead, iron, nickel and copper.
2. Rivers under Namami Gange mission has low levels of lead, iron, nickel, cadmium and arsenic.

Choose the correct option from the codes given below:

- a) 1 Only
- b) 2 Only
- c) 1 and 2 Both
- d) None of the above

Ans: a

Explanation:

- Recently, the State of Environment Report, 2022 from the environmental NGO, the Centre for Science and Environment (CSE) was launched.
- The report is an annual compendium of environment-development data and is derived from public sources.
- Three of every four river monitoring stations in India posted alarming levels of heavy toxic metals such as lead, iron, nickel, cadmium, arsenic, chromium and copper.
- In about a fourth of the stations, which are spread across 117 rivers and tributaries, high levels of two or more toxic metals were reported.
- Of the 33 monitoring stations in the Ganga, 10 had high levels of contaminants.
- The river, which is the focus of the Centre's Namami Gange mission, has high levels of lead, iron, nickel, cadmium and arsenic.

Q: Consider the following statement regarding eVTOL and choose the incorrect option:

- a) It uses electric power to hover, take off, and land vertically.
- b) There is a single motors for various functions.
- c) It is a runway independent technological solution.
- d) It is a third wave in an aerial revolution.

Ans: b

Explanation:

- As the acronym suggests, an **electric vertical take-off and landing (eVTOL) aircraft** is one that **uses electric power to hover, take off, and land vertically**.
- Most eVTOLs also use what is called as **distributed electric propulsion technology**, which means integrating a complex propulsion system with the airframe.
- There are **multiple motors for various functions**; to increase efficiency; and to also ensure safety. This is technology that has grown on account of successes in electric propulsion based on progress in motor, battery, fuel cell and electronic controller technologies and also fuelled by the need for new vehicle technology that **ensures urban air mobility (UAM)**. Thus, eVTOL is one of the newer technologies and developments in the aerospace industry.
- eVTOL is a **“a runway independent technological solution”** for the globe's transportation needs. This is because it opens up new possibilities which aircraft with engines cannot carry out in areas such as manoeuvrability, efficiency and even from the environmental point of view.
- There are an estimated 250 eVTOL concepts or more being fine-tuned to bring alive the concept of UAM. Some of these include the use of multi-rotors, fixed-wing and tilt-wing concepts backed by sensors, cameras and even radar.
- eVTOLs have been likened to **“a third wave in an aerial revolution”**; the first being the advent of commercial flying, and the second, the age of helicopters.

Q: Consider the following statement regarding Indo-Pacific Maritime Domain Awareness (IPMDA) initiative:

1. Indo-Pacific Maritime Domain Awareness (IPMDA) initiative was announced at Tokyo Summit.
2. It aims to track “dark shipping” only in Indo-Pacific Region.
3. There are two main regulations globally on IUU fishing, the Cape Town Agreement (CTA) and the Agreement on Ports State Measures (PSMA).

- India recently became a signatory to Cape Town Agreement (CTA) and the Agreement on Ports State Measures (PSMA).

Choose the correct option from the codes given below:

- 1, 2 and 3
- 2, 3 and 4
- 1 and 3
- 2 and 4

Ans: c

Explanation:

- As the Quad grouping looks to track and address illegal, unreported and unregulated (IUU) fishing in the Indo-Pacific, an ambitious effort to install the satellite-based Vehicle Monitoring System (VMS) for small fishing vessels (less than 20 metres) across the country's coastline is still to be rolled out.
- The Quad grouping, comprising India, Australia, Japan and the U.S., announced at the Tokyo summit an ambitious Indo-Pacific Maritime Domain Awareness (IPMDA) initiative.
- It aims to track "dark shipping" and to build a "faster, wider, and more accurate maritime picture of near-real-time activities in partners' waters" integrating three critical regions in the Indo-Pacific; the Pacific Islands, Southeast Asia, and Indian Ocean Region (IOR).
- There are two main regulations globally on Illegal, Unreported and Unregulated (IUU) fishing, the Cape Town Agreement (CTA) and the Agreement on Ports State Measures (PSMA) and India is, so far, not a signatory to both agreements.

Q: Consider the following statement regarding BALTOPS naval exercise:

- This exercise was started by Baltic countries.
- Finland and Sweden are not the participant of this exercise.

Choose the correct option from the codes given below:

- 1 Only
- 2 Only
- 1 and 2 Both
- None of the above

Ans: d

Explanation:

- Recently, NATO started nearly a two-week **United States-led naval exercise on the Baltic Sea**.
- It was started with more than 7,000 sailors, **airmen and marines from 16 nations**, including two aspiring to join the military alliance, **Finland and Sweden**.
- The **annual** BALTOPS naval exercise, **initiated in 1972**, is not held in response to any specific threat.
- As NATO's close partners, Finland and Sweden have participated in the naval drill since the mid-1990s.

Q: Consider the following statement regarding Indo-Pacific Economic Framework for Prosperity (IPEF):

- IPEF was launched with the twin ambitions of the U.S. to provide economic leadership and to challenge China's hegemony in the region.
- IPEF covers four pillars namely, fair and resilient trade, supply chain resiliency, clean energy decarbonisation, and tax and anti-corruption.
- New Caledonia of Pacific Island State joined the initiatives.

Choose the correct option from the codes given below:

- 1 and 2 Only
- 2 and 3 Only
- 1 and 3 Only
- 1, 2 and 3

Ans: a

Explanation:

- Recently, the U.S. administration launched its own version of a “pivot to Asia” through the establishment of the Indo-Pacific Economic Framework for Prosperity (IPEF).
- The IPEF reignites the twin ambitions of the U.S. to provide economic leadership and to challenge China’s hegemony in the region.
- IPEF was launched with other partner countries; Australia, Brunei, India, Indonesia, Japan, the Republic of Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, Vietnam and the United States.
- Within days of its launch, IPEF expanded its membership to the Pacific Island states, with Fiji joining the initiative.
- At its launch, the IPEF was proposed as an elaborate framework of rules covering four pillars, namely, fair and resilient trade, supply chain resiliency, clean energy decarbonisation, and tax and anti-corruption.