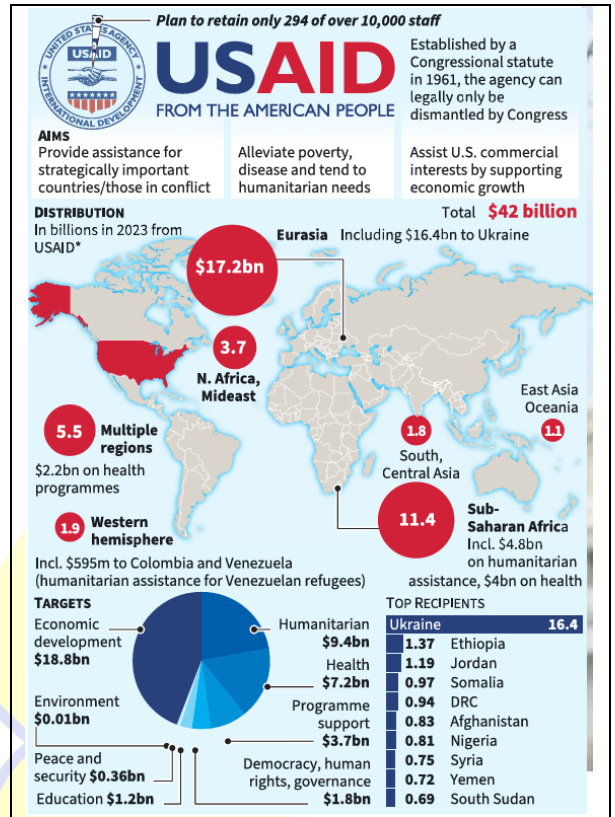


**PRELIMS MANTRA – 1 (12/02/2025)**

- **Shakti Semiconductor Chip:** Indian Institute of Technology Madras and Indian Space Research Organisation have developed an indigenous aerospace quality Shakti-based semiconductor chip. Shakti is backed by Ministry of Electronics & Information Technology, under its Digital India RISC-V initiative (DIRV).
- **Denial of-Service (DoS) & Distributed Denial of Service (DDoS) attack:** DoS attack occurs when legitimate users are unable to access information systems, devices, or other network resources due to actions of a malicious cyber threat actor, while a DDoS attack occurs when multiple machines are operating together to attack one target.
- **Ten AI Weapon System (TAIWS):** An artificial intelligence weapon system developed in-house by Army personnel, promises to enhance border surveillance, especially to prevent infiltration of terrorists.
- **Su-57, Russian fifth generation fighter aircraft (FGFA):** Rosoboronexport, Russia’s state-owned defence exports company has offered to partner with India for its joint production.
- **Konkan LNG Ltd. (KLL),** a GAIL (India) subsidiary, would soon operationalise the **Dabhol Breakwater project (in Ratnagiri district of Maharashtra)** which will make the **Dabhol LNG terminal facility an all-weather port.**
- Elephants live up to around 70 years. **Elephants’ use of sounds to communicate.** They talk to each other using four main types of calls: **trumpets, roars, rumbles, and chirps.** They combine them in different ways to convey different messages.
- **Hawaii** is earning title of **'Rainbow Capital of the World'** for its frequent and stunning rainbows. Hawaii’s regular sunshine, short rain showers & clean air come together to create some of planet’s best conditions for viewing rainbows.
- **Gross Domestic Knowledge Product (GDKP):** It aims to **quantify the contributions of knowledge, innovation, and intellectual assets to the economy.** It recognises that GDP alone does not fully capture the value generated by knowledge-based activities. The **idea was first discussed in 2021 by NITI Aayog.**
- **22nd Amendment to the U.S. Constitution,** which was ratified in 1951, says that no one can be elected more than twice as President. It was enacted after President Franklin D Roosevelt had been elected four consecutive times, from 1932 to 1944. However, if a Vice President becomes President during the term of their predecessor, they can still serve two full terms as long as they serve less than half of their predecessor’s remaining term.



<b>PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) Scheme</b>	<b>Mission Amrit Sarovar</b>
<ul style="list-style-type: none"> <li>• Notified on 29.09.2024 for <b>two years.</b></li> <li>• <b>Electric Mobility Promotion Scheme (EMPS) 2024</b> implemented for a period of six months from 01.04.2024 to 30.09.2024, is <b>subsumed in PM E-DRIVE scheme.</b></li> <li>• It includes <b>incentives for consumers and not manufacturers.</b></li> <li>• <b>Project Implementation and Sanctioning Committee (PISC),</b> an inter-ministerial empowered committee, headed by the Secretary of Heavy Industries, is constituted for overall monitoring, sanctioning, and implementation of scheme.</li> </ul> <p><b>Salient features:</b></p> <ul style="list-style-type: none"> <li>• Ministry of Heavy Industry (MHI) has introduced <b>E-vouchers</b> for Electric vehicle buyer to avail the demand incentive.</li> <li>• <b>New vehicle segments:</b> e-ambulances and e-trucks.</li> <li>• Upgradation of vehicles testing agencies.</li> <li>• Funding for establishing public charging infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>• It was <b>launched in April 2022 to construct or rejuvenate 75 Amrit Sarovars (ponds) in each district,</b> totalling 50,000 across the country. It has been <b>completed on 15th August 2023.</b></li> <li>• Every Amrit Sarovar will have a <b>pondage area of at least 1 acre</b> with a water holding capacity of about 10,000 cubic metre.</li> <li>• <b>No specific funding rather convergence</b> from various schemes of centre and states.</li> <li>• <b>Public contribution</b> like crowd funding and <b>Corporate Social Responsibility</b> is also allowed for the work.</li> <li>• Every Amrit Sarovar site is a <b>place for flag hoisting on every Independence Day.</b></li> </ul>

**PRACTICE MCQs**

Q.1 Consider the following statements about the PM e-DRIVE Scheme:

1. It includes incentives for both consumers and manufacturers of e-vehicles.
2. It has introduced new vehicle segments of e-ambulances and e-trucks.
3. Electric Mobility Promotion Scheme is subsumed under PM e-DRIVE.

How many of the above statements are correct?

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

**Answer: B (Only 2 and 3 are correct)**

Q2. Which of the following places has earned the title of 'Rainbow Capital of the World' for its frequent and stunning rainbows?

- a) Dehradun, India
- b) Hawaii, USA
- c) Los Angeles, USA
- d) Santorini, Greece

**Answer: B**

Q3. Consider the following statements:

1. According to U.S. Constitution, no one can be elected more than twice as President.
2. If a Vice President becomes President during the term of their predecessor, they can still serve two full terms.

Which of the statements given above is/are correct?

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

**Answer: C**

Q4. Consider the following statements about USAID:

1. It was established to oversee and administer international humanitarian aid.
2. It was established under the Foreign Assistance Act of 1961
3. It can be legally dismantled only by the Congress.

Which of the statements given above is/are correct?

- a) 1 only
- b) 1 and 2 only
- c) 2 and 3 only
- d) 1, 2 and 3

**Answer: D**

Q5. Which of the following statements is incorrect about Mission Amrit Sarovar?

- a) It is a Central Sector Scheme.
- b) It was launched in April 2022 to construct or rejuvenate 75 Amrit Sarovars (ponds) in each district.
- c) Every Amrit Sarovar will have a pondage area of at least 1 acre.
- d) Every Amrit Sarovar site is a place for flag hoisting on every Independence Day.

**Answer: A**