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The Road Map to Mussoorie...



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QUAD

Context: India reiterates its view that QUAD is not a military alliance but a regional grouping.



About QUAD

- The Quadrilateral Security Dialogue, is a diplomatic partnership among **Australia, India, Japan, and the US.**
- It focuses on stability and prosperity in the **Indo-Pacific region**, promoting an open, stable, and resilient environment
- The Quad aims to address pressing regional challenges, including health security, climate change,

infrastructure, technology, cybersecurity, humanitarian assistance, maritime security, countering disinformation, and counter-terrorism.

- It was established in 2007 by the Japanese Prime Minister **Shinzo Abe**, the group went dormant due to concerns over China's reactions, particularly after Australia withdrew in 2008
- It was revived in 2017 amid shifting regional attitudes toward China's influence, culminating in its first formal summit in 2021
- The **Malabar naval exercise** is a military exercise between the navies of QUAD members.
- "Quad-plus" meetings have included nations like South Korea, New Zealand, and Vietnam, indicating potential for future expansion.
- The Quad remains an **informal grouping** without a formal secretariat or institutional framework
- China has criticized the grouping as a '**Asian-NATO**' and accused it of sowing discord in the region.
- India's traditional wariness of formal military alliances and preference for strategic autonomy, impedes the further deepening of cooperation on security issues.

About AUKUS

- AUKUS is a trilateral **security partnership** between the **United Kingdom, the USA and Australia.**
- It consists of two key pillars.

- Pillar 1 focuses on supporting Australia to acquire its first conventionally armed, nuclear-powered submarine fleet.
- Pillar 2 focuses on cooperation in eight advanced military capability areas like artificial intelligence (AI), quantum technologies, innovation, information sharing, and cyber, undersea, hypersonic and counter-hypersonic and electronic warfare domains.

About I2U2

- It is a new strategic partnership formed between **India, Israel, the United Arab Emirates, and the United States**.
- It is also referred to as the **West Asian Quad**
- It was established to enhance cooperation and collaboration in various areas such as water, energy, transportation, space, health, and food security.
- The main objective of this grouping is to promote economic development, scientific innovation, and regional stability.

Source : India does not share Japanese PM's view of 'Asian NATO', says Jaishankar (The Hindu)

TERMS IN NEWS

Blue Bricks

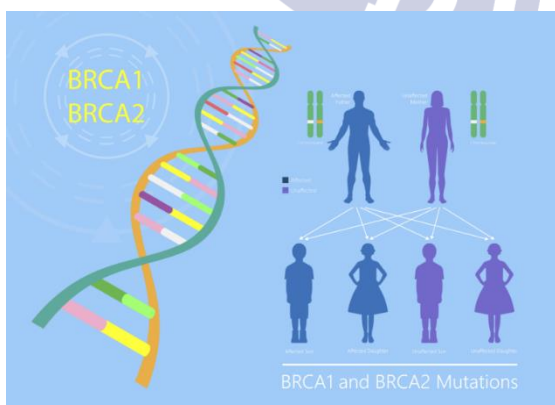


- Sasthra Vedhi, an organization in Kerala, has proposed using concrete blocks called "blue bricks" to bury **hazardous waste**.
- The idea is to bury hazardous waste like nickel-cadmium batteries and CFL lamps in the concrete blocks used for construction.

The organization claims that this **decentralized method** of processing waste

will significantly reduce the amount of carbon dioxide emissions associated with waste disposal.

BRCA testing



- The BRCA gene test is a blood test that uses DNA analysis to identify harmful changes (mutations) in either one of the two breast cancer susceptibility genes — **BRCA1 and BRCA2**

- People who inherit mutations in these genes are at an increased risk of developing **breast cancer and ovarian cancer** compared with the general population.

- They are associated with breast tissues that help repair damaged DNA or destroy cells if the damaged DNA cannot be repaired

- They are **tumour suppressor genes**.
- When they work normally, these genes help keep breast, ovarian, and other types of cells from growing and dividing too rapidly or in an uncontrolled way
- Everyone has two copies of each of these genes—one copy inherited from each parent.

Sarco Pod



- The Sarco Pod is a **euthanasia device** designed to facilitate assisted suicide in a peaceful and controlled manner.
- It is a **3D-printed**, capsule-shaped pod that can be activated by the user from inside.
- The device works by filling the pod with **nitrogen**, which reduces the oxygen levels rapidly.
- This leads to loss of consciousness within a few seconds, followed by a peaceful **death due to hypoxia** (lack of oxygen) within minutes.
- A central aspect of the Sarco Pod is that the individual can activate the process independently, making it a self-administered method of euthanasia.
- The Sarco Pod aligns with the concept of “**death with dignity**,” although its legal status varies depending on the country or region.
- The pod is designed to be transportable, allowing individuals to end their lives autonomously and in a dignified manner without needing medical assistance.
- The Sarco Pod has sparked considerable debate worldwide, with questions about the ethical implications of euthanasia, the legal status of such devices, and concerns about misuse.

SPECIES IN NEWS

Swallowtail butterflies



- They are large, colorful butterflies in the family Papilionidae, and include over 550 species.
- Though the majority are tropical, members of the family inhabit every continent except Antarctica.
- The family includes the largest butterflies in the world, the birdwing butterflies of the genus Ornithoptera.
- The forked appearance in some of the swallowtails' hindwings, which can

be seen when the butterfly is resting with its wings spread, gave rise to the common name swallowtail.

- Colour patterns may vary, although many species have yellow, orange, red, green, or blue markings on an iridescent black, blue, or green background.
- Sexual and seasonal differences in coloration also occur.
- India hosts 77 of the 573 swallowtail butterfly species recorded across the world so far.
- The overexploitation of 25 species of host plants valued for their medicinal properties threatens the swallowtail
- butterflies in the forest habitats of a part of Assam.

The International Union for Conservation of Nature designated the northeastern part of the country, where 69 species have been recorded, a ‘swallowtail-rich zone’ under the Swallowtail Conservation Action Plan.

Karvi Flower

- Karvi (*Strobilanthes callosa*) is a shrub native to the **Western Ghats**, displaying a fascinating life cycle where it thrives during the monsoon, only to appear dry for seven years before its spectacular flowering in the eighth year.
- The flowers, resembling miniature funnels, start as pink buds that unfold into a vibrant purple-blue, creating a breathtaking visual spectacle.
- Karvi (*Strobilanthes callosa*) is a shrub which is found in the Western Ghats along the west coast of India.
- It comes alive and green every year during the monsoon, but once the rains are over, all that is left is dry and dead-looking stems.
- This pattern repeats itself for seven years, but in the eighth year the plant bursts into mass flowering.



Neelakurinji Flowers

- It is a shrub of the Acanthaceae family that famously blooms once every 12 years.
- It is endemic to Western Ghats, covering the slopes of Kerala, Karnataka and Tamil Nadu.
- Their scientific name is ‘*Strobilanthes Kunthiana*’.
- The Topli Karvy (*Strobilanthes sessilis*), the Karvy (*Strobilanthes callosa*) and the Kurinji (*Strobilanthes kunthiana*), all belong to the *Strobilanthes* genus.
- The Topli Karvy is found more in the northern section of the Western Ghats in Maharashtra.
- The Karvy grows on the steepest cliffs where trees can’t grow.

PRACTICE QUESTIONS

Q1 : India is a member of how many of the following groupings?

1. QUAD
2. BRICS
3. I2U2
4. AUKUS

- a) Space Missions
- b) Deep Sea Missions
- c) Euthanasia
- d) MRI Scanning

Select the correct option from the following

- a) Only Two
- b) Only Three
- c) All of the above
- d) None of the above

Q5 : Karvi Flowers are a distinct feature of which of the following regions in India?

- a) Western Himalayas
- b) Western Ghats
- c) Arid Regions of Rajasthan
- d) Sundarbans

Q2 : The term blue bricks is associated with which of the following?

- a) Nuclear Power Plants
- b) Nano Bots
- c) Waste Management
- d) Space Missions

Answers

1. B
2. C
3. A
4. C
5. B

Q3 : BRCA Tests is commonly used to identify which of the following?

- a) Cancer
- b) Cardio Vascular Diseases
- c) Kidney abnormalities
- d) Liver Function fluctuations

Q4 : Sarco Pods, which have been in the news recently is mainly used for which of the following applications?