



Daily Current Affairs Prelims Quiz 16-03-2024 (Online Prelims Test)

1) Consider the following statements with respect to Pandavula Gutta

1. It is the only Geo-heritage site in Telangana.
2. It is younger than the Himalayan hills.
3. Paleolithic cave paintings can be found here.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All Three
- d. None of the above

Answer : b

Pandavula Gutta

Recently the Geological Survey of India (GSI), State Unit of Telangana organized a Geo-heritage walk at Pandavula Gutta.

- Pandavula Konda (Pandavula Gutta) site was first discovered in the year 1990.
- **It is the one and only Geo-heritage site in Telangana.**
- Pandavula Gutta is a hillock older than Himalayas.
- **Paintings** - These cave paintings offer a rare glimpse into the prehistoric man's rock art identified on walls and ceilings of caves, rock shelters and isolated boulders.
- **Paleolithic cave paintings** have been found at Pandavula Gutta.
- The rock art paintings depict wild life like Bison, Antelope, Tiger, and Leopard and so on.
- Other shapes like swastika symbol, circles and squares, weapons such as bows, arrows, sword and lancer and so on are present in these paintings.
- The paintings also feature geometrical designs and impressions in green, red, yellow and white pigment colours.
- Pandavula Gutta is rich in terms of number of paintings, rock shelters and its habitation, right from the Mesolithic to medieval times.

2) Consider the following statements with respect to Dome (Domain Driver Mutation Estimator)

1. It is a computer program designed to analyse the genetic makeup of tumours in cancer patients.
2. This tool was developed by Indira Gandhi Institute of Medical Sciences, Patna.

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

- a. 1 only
- b. 2 only
- c. Both 1 and 2

d. Neither 1 nor 2

Answer : a

Dome (Domain Driver Mutation Estimator)

The researchers at the Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Tata Memorial Centre recently developed Dome to detect rare mutations of cancer.

- Dome (Domain Driver Mutation Estimator) represents an advanced computer program designed to scrutinize the genetic composition of tumours across a diverse cohort of cancer patients.
- It goes beyond just finding mutations and instead focuses on where exactly those mutations are located within genes.
- **Developed by** - The Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Tata Memorial Centre, Mumbai.
- **Precise Location Analysis** - Dome goes beyond merely detecting mutations; it focuses on their *precise locations within genes*.
- By analysing mutations within specific gene domains, Dome identifies mutations that are more likely to disrupt protein function and contribute to cancer progression.
- **Tailored Therapies** - By pinpointing novel rare mutations implicated in cancer, Dome facilitates the *development of personalized therapies tailored to each patient's unique cancer profile*.
- This can lead to more effective treatment strategies and better outcomes for patients.
- **Prediction of Cancer Progression** - Dome's ability to analyze variants of unknown significance based on gene-specific locations helps predict cancer progression in patients.
- This information equips clinicians with valuable insights for treatment decision-making.
- **Future Implications** - Dome is expected to emerge as a powerful tool for oncologists, aiding in the design of precision medicine tailored to individual patient mutation profiles.
- Continued research and refinement of Dome's capabilities are likely to lead to more personalized and efficacious cancer therapies in the future.

3) Consider the following statements with respect to Gulf of Mannar Biosphere Reserve

1. It is the first marine biosphere reserve in South & South-East Asia.
2. It is an international bird and biodiversity area and a part of Central Asian Flyway.
3. It has been recognized by the Man and Biosphere (MAB) Programme of UNESCO.

How many of the statements given above are correct?

- a. Only one
- b. Only two
- c. All Three
- d. None of the above

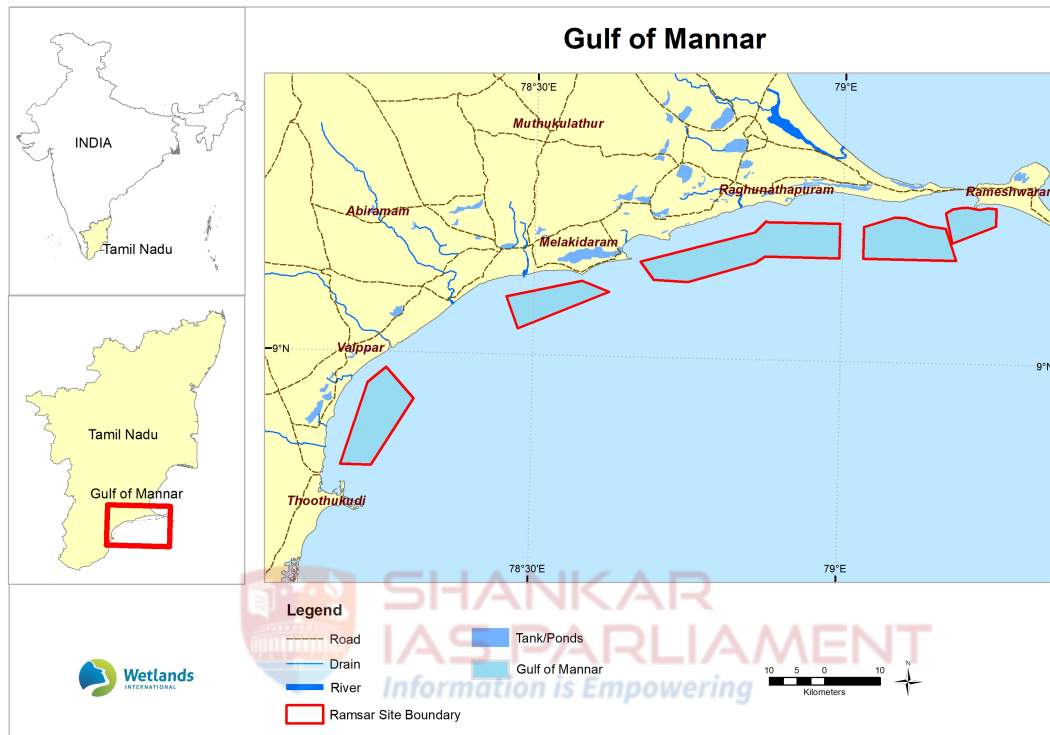
Answer : c

Gulf of Mannar Biosphere Reserve (GoMBR)

A wind power project by Adani Green Energy in Mannar district of Sri Lanka has run into controversy with locals and environmentalists raising concern over its possible impact on the coastal region and livelihoods.

- Gulf of Mannar Biosphere Reserve (GoMBR) is located in the south-eastern coastline of India extending between Thoothukudi and Ramanathapuram districts of Tamil Nadu.

- It came into existence on **February 1989**, by a joint declaration of the Government of India and the Government of Tamil Nadu.
- It has been recognized by the **Man and Biosphere (MAB) Programme of UNESCO**.
- GoMBR is the first marine [biosphere reserve](#) in south & south-east Asia.
- Supports more than 1,10,000 families from 268 fishing villages.
- **It is an International bird and biodiversity area and part of central asian bird migratory flyway.**
- The Reserve is also home to several globally important and highly threatened species like the **Dugong**, whale shark, sea horses, Balanoglossus, green sea turtle, Hawksbill turtle, dolphins, sacred chanks, etc.



4) Lepidolite is an important ore of?

- Iron
- Copper
- Lithium
- Uranium

Answer : c

Lepidolite

China lithium boom slows as the cost of producing lithium via Lepidolite is relatively expensive.

- Lepidolite is a rare **lithium-rich** mica mineral that is usually pink, red or purple in colour.
- It is the **most common lithium-bearing mineral** and serves as a minor ore of lithium metal, with rubidium and cesium sometimes being by-products.
- It is a member of the common mica group and economically important as a major source of lithium.
- **It is a hard rock ore that is relatively expensive for producing lithium.**
- Since it contains appreciable amounts of rubidium, it is useful in determining geological age according to strontium-rubidium ratios.

- It occurs almost exclusively in granite pegmatites.

5) DIANA, sometimes seen in the news, is an initiative of?

- North Atlantic Treaty Organization (NATO)
- Shanghai Cooperation Organization (SCO)
- Collective Security Treaty Organization (CSTO)
- Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)

Answer : a

DIANA Initiative

Recently Finland joined the DIANA Initiative of North Atlantic Treaty Organization (NATO).

- **DIANA - Defence Innovation Accelerator for the North Atlantic.**
- It aims to address future challenges in defence and security by harnessing technological solutions.
- ***It is an initiative of North Atlantic Treaty Organization (NATO).***
- It seeks to accelerate the development and deployment of innovative solutions with applications in both civil and defence sectors.
- DIANA has a network of more than 200 affiliated accelerator sites and test centres.
- ***All NATO nations are members of DIANA.***
- The DIANA Board of Directors is responsible for governance and comprises representatives from every Allied country.
- **DIANA accelerator programme** - Aimed at helping companies and countries develop deep technologies and innovations applicable to both commercial and defence sectors.

