



## Daily Current Affairs Prelims Quiz 16-05-2024 (Online Prelims Test)

1) Deda Method, sometimes seen in the news recently, is associated with?

- a. A seed preservation technique.
- b. A technique to predict dengue outbreak.
- c. A method used in widal test to diagnose typhoid.
- d. A sustainable method to produce hydrogen fuel cell.

Answer : a

### Deda Method

- Deda is a *traditional method of preserving seeds*.
- In Deda method, seeds are preserved in leaves and packed almost airtight to look like boulders from a distance.
- The packaged seeds are, in turn, woven with Siali leaf (*Bauhinia vahlii*), which is locally known as 'addakulu' to make the deda.
- **Three layer protection** - In the First layer, wood ash is spread inside the Siali leaves.
- Later, the ash is covered with lemon leaves to form a casing, and, lastly, the seeds are preserved inside the casing and sealed.
- The method guarantees protection of seed from pests and worms.
- In this method, the stored seeds can be used for cultivation for up to **five years**.
- It is widely practised by the **Muria tribes** in Chhattisgarh.
- This method is one of the practices handed over to Muria tribe by our ancestors in the forests of Chhattisgarh.
- The Murias settled along the banks of the Godavari and Sabari rivers in the Godavari valley in Andhra Pradesh and Telangana.



2) Consider the following statements with respect to Chabahar Port

1. It is Iran's first deep-water port and is also a part of the International North-South Transport Corridor project.
2. Shahid Beheshti is a Terminal is at Chabahar Port developed by India.
3. In India, the Kandla port in Gujarat stands as the nearest to the Chabahar port.

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

### Chabahar Port

*India and Iran have recently signed a Long-term Main Contract for the development of the Shahid Beheshti Port Terminal at Chabahar Port.*

- In May 2016, India entered into a tripartite agreement with Iran and Afghanistan to foster the development of the Shahid Beheshti Terminal at Chabahar.
- It is situated in the south-eastern province of Sistan-Baluchestan in Iran.
- The long-term agreement was signed between Indian Ports Global Ltd. (IPGL) and Port and Maritime Organisation (PMO) of Iran, enabling operation of the Shahid-Behesti terminal.
- The Kandla port in Gujarat stands as the nearest to the Chabahar port.
- ***It is Iran's first deep-water port and is also a part of the International North-South Transport Corridor project.***
- In India, the Kandla port in Gujarat stands as the nearest to the Chabahar port.



3) Consider the following statements:

**Statement-I:** The Semal tree, which are medicinally valuable are disappearing from south Rajasthan.

**Statement-II:** The Holika Dahan is the ritualistic bonfire lit on the eve of Holi.

Select the correct answer using the codes given below:

- 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

Answer : a

### Semal Tree (*Bombax ceiba*)

*Semal tree which are medicinally valuable are disappearing from south Rajasthan because it is being widely used in the Holika Dahan.*

- Semal Tree is a large deciduous tree native to the Indian subcontinent and is also called as red silk cotton tree
- Its botanical name is *Bombax ceiba* and it belongs to the *Bombax* genus of the *Malvaceae* (mallow) family.
- Members of the Garasia tribe in the area also believe they are descended from semal trees.
- **Uses - All parts of the tree such as roots, bark, gum, leaves, flowers, fruits and seeds have traditional medicinal uses.**
- The soft floss from the fruit is used as stuffing for pillows and life jackets. The timber is used for making boxes, toys and furniture.
- It provides opportunities for agroforestry and resources like food, fodder and fuel wood.
- Members of the Kathodi tribe use its wood to craft musical instruments while those of the Bhil use it to make utensils.
- The semal is known for its ecological value, providing food and habitat for various animals like birds, bees, insects and mammals.
- **Holika Dahan** - Overexploitation and felling for purposes like Holika Dahan bonfires have threatened its population in some regions like southern Rajasthan.
- Holika Dahan is a Hindu ritual performed on the eve of Holi, the festival of colors, in Udaipur and other parts of Rajasthan.
- It involves lighting a large bonfire or pyre called the Holika Dahan, which symbolizes the victory of good over evil, as per Hindu mythology.
- Traditionally, the central pillar or trunk of the Holika Dahan pyre is made from the wood of the silk cotton tree, locally known as the semal tree.
- In Udaipur, the Holika Dahan is a major attraction during Holi, with a 50-foot-high pyre sheathed in hay and set ablaze, drawing crowds of locals and tourists.
- **Large quantities of semal are cut in southern Rajasthan, in places like Bhil and Garasia, and sold in Udaipur.**
- The cutting down of seermal trees violates a panoply of laws, that includes:
  - The Rajasthan Forest Act 1953 and
  - Forest (Conservation) Act 1980.

4) Consider the following statements with respect to Indian Ocean basin-wide in Index (IOBW)

1. It represents the average sea-surface temperature variations across the tropical Indian Ocean.
2. It has emerged as a key indicator for predicting the magnitude and timing of dengue epidemics in each country.
3. IOBW index's association with the Northern Hemisphere is stronger than that with the Southern Hemisphere.

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

### Indian Ocean basin-wide in Index (IOBW)

*A new study has identified that the Indian Ocean basin-wide (IOBW) index is closely linked to dengue outbreaks in both the Northern and Southern hemispheres.*

- The Indian Ocean basin-wide (IOBW) index represents the average variations in sea-surface temperatures across the tropical Indian Ocean region.
- The index exhibits a close association with the occurrence of dengue outbreaks in countries located in both the Northern and Southern hemispheres.
- *The link is likely due to the influence of Indian Ocean temperatures on regional temperatures through atmospheric teleconnections, which can transfer heat and moisture over long distances.*
- The IOBW index substantially *affects local temperatures worldwide*, thereby influencing the transmission of dengue virus.
- The Northern Hemisphere witnesses peak dengue epidemics between July and October, while the Southern Hemisphere peaks between February and April, both during their respective summers.
- The amplitude or magnitude of dengue incidence was found to be high when the IOBW index was positive and low when it was negative.
- The annual dengue incidence showed correlation with the IOBW index in both the Northern and Southern hemispheres, with a ***stronger association in the Southern Hemisphere.***
- The researchers suggest that the IOBW index could potentially be used as an indicator to forecast the inter-annual and seasonal magnitude of global dengue epidemics, providing an early warning system.

5) Consider the following statements with respect to Xenotransplantation

1. It involves the use of animal cells and organs to heal humans.
2. Since pig's anatomical and physiological parameters are similar to that of humans, it is primarily used in Xenotransplantation.

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 : c

### Xenotransplantation

*The first recipient of a modified pig kidney transplant passed away recently, around two months after the surgery was carried out.*

- Xenotransplantation is any procedure that involves the *transplantation, implantation or*

*infusion* into a human recipient of either:

- Live cells, tissues, or organs from a nonhuman animal source or
- Human body fluids, cells, tissues or organs that have had ex vivo contact with live nonhuman animal cells, tissues or organs.
- It involves the use of animal cells and organs to heal humans.
- The need for such a procedure was felt because of the significant gap between the number of transplantations needed by patients and the availability of donor organs.
- **Pigs** - Are often used for xenotransplantation.
- Pig heart valves have been used for replacing damaged valves in humans for over 50 years now.
- The pig's anatomical and physiological parameters are similar to that of humans, and the breeding of pigs in farms is widespread and cost-effective.
- Also, many varieties of pig breeds are farmed, which provides an opportunity for the size of the harvested organs to be matched with the specific needs of the human recipient.
- In January 2022, the first xenotransplantation of a genetically-modified pig heart was done.
- The patient passed away after two months due to a range of factors, including being tainted with a latent virus in the pig heart, which may have contributed to the dysfunction of the transplant.

