

**Q: Consider the following statement regarding Punganur:**

1. It is an indigenous breed native to Andhra Pradesh.
2. They are considered the shortest humped cattle in the world.
3. In the 2012 livestock census they were found in all four South India states.

Choose the correct option from the codes given below:

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

Ans: a

Explanation:

- The Punganur is an indigenous breed native to the Punganur, Vayalpadu, Madanapalli, and Palamaneer talukas of Chittoor district in the Rayalaseema region of southern Andhra Pradesh.
- They are a unique dwarf breed, considered the shortest humped cattle in the world. Their small size makes it easy to keep them at home.
- Punganur cows can be white or grey, or of shades of light or dark brown.
- They have small, crescent-shaped horns of 10-15 cm length, which often curve backward and forward in male cattle and lateral and forward in female cattle of the breed.
- The Punganur were once on the verge of extinction, and their numbers had fallen below 3,000 heads of cattle across the country. However, in recent years, these numbers have increased.
- In the 2012 livestock census Punganur were found only in Andhra Pradesh.
- The Centre and the Andhra Pradesh governments have taken several steps for the conservation of indigenous breeds such as Punganur.
- The Andhra Pradesh government has provided financial support through its budget for the promotion of the Punganur breed.

**Q: Syndiniales, sometimes seen in the news, is related to which of the following?**

- a) A meteor shower that occurs every year in the month of December.
- b) A group of parasitic single-celled organisms.
- c) A new species of marine amphipod that was discovered in Chilika Lake, Odisha.
- d) An island country near Africa that was recently declared malaria-free.

Ans: b

Explanation:

- Scientists have recently discovered that the presence of a certain single-celled microbe could be key to the survival of some corals.
- Corals face more and more heat-stress events due to climate change.
- Syndiniales is a group of parasitic single-celled organisms that could be the possible reason for the corals to survive the heat stress
- The presence of Coralicolids, a group of single-celled organism related to the parasite that causes malaria, was more common likely to cause corals die from heat stress.
- Corals are a crucial component of many marine ecosystems and more frequent ocean warming events are a great threat to them.
- The harm caused to corals by climate change can cascade into large biodiversity loss.

**Q: Consider the following statements with respect to Diodes:**

1. It is an electronic component whose primary purpose is to allow current to flow in only one direction.
2. LEDs (Light-emitting Diodes) can produce all three primary colours such as red, green and blue.
3. An OLED is a solid-state device consisting of a thin, carbon-based semiconductor layer that emits light when electricity is applied by adjacent electrodes.

How many of the statements given above are correct?

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

Ans: c

Explanation:

- A diode is an electronic component about 5 mm wide. It has two points of contact, or terminals, called its anode and cathode.
- A diode's primary purpose is to allow current to flow in only one direction. It achieves this using a p-n junction.
- A p-n junction is made of two materials laid next to each other.
- Light-emitting diode (LED) – An LED is a diode that emits light.
- LEDs (Light-emitting Diodes) can produce all three primary colours such as red, green and blue.
- Organic LEDs (OLED) – The key building blocks for them are organic (carbon-based) materials.
- An OLED is a solid-state device consisting of a thin, carbon-based semiconductor layer that emits light when electricity is applied by adjacent electrodes.

**Q: Defence Technology Council, sometimes seen in the news, is a recommendation of which of the following committee?**

- a) CI Issac Committee
- b) Akhilesh Ranjan Committee
- c) Rekhi Committee
- d) Vijay Raghavan Committee

Ans: d

Explanation:

- Defence Technology Council is a top body chaired by the Prime Minister, with the Defence Minister and the National Security Advisor as its Vice Presidents.
- The Defence Technology Council is a proposed top body to have an executive committee chaired by the Chief of Defence Staff.
- It will include representation from academia and industry, with two members from each sector.
- The committee believes the Defence Technology Council headed by the Prime Minister would play a pivotal role in identifying the right players for specific defence technologies.
- The 9 member Vijay Raghavan panel was set up by the government last year to review the functioning of the Defence Research and Development Organisation (DRDO) and it has submitted its report recently.

**Q: Consider the following statements with respect to e-SAKSHI Mobile Application**

1. The e-SAKSHI mobile application provides real-time access, enhancing decision-making processes for MPs.
2. It was launched by the Ministry of Statistics and Programme Implementation.

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

Ans: c

Explanation:

- The e-SAKSHI mobile application provides real-time access, enhancing decision-making processes for MPs.
- It was launched by the Ministry of Statistics and Programme Implementation.
- This innovative technology solution aims to enhance transparency, accessibility, and efficiency in the execution of MPLAD scheme.
- It would offer convenience and accessibility, allowing MPs to propose, track, and oversee the projects at their fingertips.

- It has real-time access that enhances decision-making processes, enabling swift responses to emerging needs or issues.
- The application will streamline the communication between MPs and relevant authorities, facilitating a more efficient exchange of information.
- The mobile app will promote transparency by providing MPs with instant updates on the status and progress of their proposed projects.