

Q: Consider the following statement regarding India Climate Energy Dashboard (ICED) 3.0:

1. It is one-stop platform for near real-time data on the energy sector.
2. It will facilitate insights and enhance understanding about the energy and climate sectors while identifying the key challenges.
3. It was developed by Ministry of New and Renewable energy.

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:

- India Climate Energy Dashboard (ICED) 3.0 is the country's one-stop platform for near real-time data on the energy sector, climate, and related economic datasets based on government published sources.
- It was developed by NITI Aayog in collaboration with the energy and climate think-tank Vasudha Foundation.
- Developed as a user-friendly platform, ICED 3.0 enables users to freely access and analyses datasets using an analytical engine.
- It will facilitate insights and enhance understanding about the energy and climate sectors while identifying the key challenges.
- The Portal will draw insights from the available data parameters and hence immensely useful in monitoring the progress of India's clean energy transition journey.

Q: Consider the following statement regarding Pradhan Mantri Fasal Bima Yojana:

1. This scheme is being administered under the Ministry of Finance
2. It was launched to replace all the prevailing yield insurance schemes in India.
3. The scheme provides coverage for the entire cropping cycle

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: b

Explanation:

- Pradhan Mantri Fasal Bima Yojana was launched in 2016 and replaced all the prevailing yield insurance schemes in India.
- This scheme is being administered by the Department of Agriculture, Cooperation and Farmers' Welfare under the Ministry of Agriculture, along with empanelled general insurance companies.
- It aims to support production in agriculture by providing affordable crop insurance to ensure comprehensive risk cover for crops of farmers against all non-preventable natural risks.
- The scheme provides coverage for the entire cropping cycle, from pre-sowing to post-harvest and midseason adversities.

Q: Consider the following statement regarding Hygroelectricity:

1. It is the generation of electricity from the humidity of the air.
2. It is a type of renewable energy.

Choose the correct option from the codes given below:

- a) 1 only
- b) 2 Only
- c) 1 and 2
- d) None of the above

Ans: c

Explanation:

- Hygroelectricity is the generation of electricity from the humidity of the air.
- It is a type of renewable energy that has the potential to be a major source of power in the future.
- The key to harvesting electricity from humid air lies in a tiny device comprising two electrodes and a thin layer of material filled with nanopores.
- These nanopores, each less than 100 nanometres in diameter, allow water molecules from the air to pass through the device.

Q: Consider the following statement regarding Software Defined Radio (SDR):

1. It employs reconfigurable software-based components for the processing and conversion of digital signals.
2. This is an emerging technology used to connect ever-increasing wireless world.
3. These radio devices are highly flexible and versatile.

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: d

Explanation:

- Software Defined Radio (SDR) is a radio communication system that employs reconfigurable software-based components for the processing and conversion of digital signals.
- Unlike traditional radio communication systems, these radio devices are highly flexible and versatile.
- This is an emerging technology used to connect ever-increasing wireless world.

Q: Consider the following statement regarding DART Mission:

1. It was the first-ever space mission to demonstrate asteroid deflection by kinetic impactor.
2. It is the first-time humanity intentionally changed the motion of a celestial object in space.

Choose the correct option from the codes given below:

- a) 1 only
- b) 2 Only
- c) 1 and 2
- d) None of the above

Ans: c

Explanation:

- NASA's Double Asteroid Redirection Test (DART) Mission mission was a spacecraft designed to test a method of deflecting an asteroid for planetary defense, using the "kinetic impactor" technique (in simplest terms means smashing a thing into another thing).
- DART was the first-ever space mission to demonstrate asteroid deflection by kinetic impactor.
- The target of the spacecraft was a 160-meter-wide asteroid known as Dimorphos, which is a moonlet in orbit around the larger asteroid, Didymos.
- It was launched in November 2021.
- DART spacecraft successfully collided with Dimorphos on 26 September 2022, altering the asteroid's orbit by 33 minutes.
- It is the first-time humanity intentionally changed the motion of a celestial object in space.