

06-08-2021

Flex-fuel Engine

Question: Consider the following statements:

1. In a flex-fuel engine, you will be able to use both petrol and ethanol in different proportions.
2. This can reduce the price of oil by up to 40 percent. Along with India's rural economy will also get a boost, because sugarcane, maize, cotton stalks, wheat straw are used to make ethanol.
3. In a flexi-fuel engine, we will be able to use both petrol and ethanol in different proportions.

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

(A) 01 and 02

(B) 02 and 03

(D) 01 and 03

(D) all of the above

Answer:- (D) All of the above

Role:- Recently the Minister of Road Transport and Highways has asked Society of Indian Automobiles Manufacturers (SIAM) and automobile companies to make flexi engines.

- Exam Useful Points:-
- Recently, the petrol we use in vehicles, up to 8.5 percent of the biofuel i.e. ethanol is mixed in it. But in a flex-fuel engine, you will be able to use both petrol and ethanol in different proportions.
- In vehicles with flexi engines, different types of fuel can be put in the same fuel tank.
- This can reduce oil prices by up to 40 percent. At the same time, India's rural economy will also get a boost, as sugarcane, maize, cotton stalks, wheat straw bagasse and bass are used to make ethanol.
- Sugarcane, maize and other sugary plants are commonly used to make it. It emits less carbon

Earthquake Early Warning Mobile App

Question: Consider the following statements:

1. It can detect the onset of earthquakes, and issue warnings before significant earthquakes occur in the state.
2. This mobile app project was sponsored by Uttarakhand State Disaster Management Authority.
3. The early warning system works on the basis of the speed of seismic waves. Which spreads after the tension is released from the fault movement.

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

- (A) 01 and 02 (B) 02 and 03
(D) 01 and 03 (D) all of the above

Answer:- (D) All of the above

Role:- Recently Indian Institute of Technology Roorkee has launched Earthquake Early Warning Mobile App for Uttarakhand.

Exam Useful Points:-

- Earthquake Early Warning Mobile App will alert the people about the onset of the disaster.
- It can detect the onset of earthquakes, and can issue warnings before significant earthquakes occur in the state.
- This mobile app project was sponsored by Uttarakhand State Disaster Management Authority.
- The early warning system works based on the speed of the seismic waves, and propagates after the stress is released from the fault movement. The EEW (Earthquake Early Warning) system uses these waves to generate an alert.
- The EEW data stream in the central server is established in the system laboratory. High-speed telecommunications is used for data streaming, and high-performance computer calculations are performed, the central server process receives data on a continuous 24×7 basis when an earthquake of greater than 5

magnitude occurs in prone areas. If so, it issues a warning to the public.

- It was earlier started as a pilot project for the Garhwal region of Uttarakhand in association with the Union Ministry of Earth Sciences. Later the Uttarakhand government extended it. Under this project, sensors have been installed in the high altitude areas of Garhwal and Kumaon regions of Uttarakhand.

Swinhoe's Softshell Turtle

Question: Consider the following statements:

1. This animal is also known as "Hoan Kiem Turtle" or "Yangtze Giant Softshell Turtle".
2. The natural habitat of these turtles is wetlands and large lakes.
3. These animals have a lot of cultural importance in Vietnam, as people in Hanoi regard this animal as a living deity.

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

- | | |
|---------------|----------------------|
| (A) 01 and 02 | (B) 02 and 03 |
| (D) 01 and 03 | (D) all of the above |

Answer:- (D) All of the above

Role:- In recent years, a lot of efforts have been made by conservationists to save the world's most endangered turtle, the Swinhoe's softshell turtle, from extinction.

Exam Useful Points:-

- The natural habitat of these turtles is wetlands and large lakes.
- It is native to China and Vietnam.
- This animal is also known as "Hoan Kiem Turtle" or "Yangtze Giant Softshell Turtle".
- These animals have a lot of cultural significance in Vietnam, as people in Hanoi regard this animal as a living god.

- Along with hunting for its meat and eggs, it has reached the verge of extinction due to habitat destruction.
- These turtles are brown in color with light brown or yellow markings.
- Their scientific name is “Rafetus Swinhoei”.
- Some researchers have highlighted their importance in the context of the seafloor, where they contribute by enriching soil nutrients and facilitating seed dispersal.

