



Daily Current Affairs Prelims Quiz 21-02-2022 - (Online Prelims Test)

1) Consider the following statements regarding the First Information Report (FIR):

1. The term FIR is defined in the Indian Penal Code (IPC) and derives its powers from the Code of Criminal Procedure (CrPC).
2. With respect to a cognizable offense, a police officer may arrest a person without a warrant.

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 : b

First Information Report (FIR)

- The term first information report (FIR) is not defined in the Indian Penal Code (IPC), Code of Criminal Procedure (CrPC), 1973, or in any other law, but in police regulations or rules, information recorded under Section 154 of CrPC is known as First Information Report (FIR).
- Section 154 (Information in cognizable cases) says that every information relating to the commission of a cognizable offence, if given orally to an officer in charge of a police station, shall be reduced to writing by him or under his direction, and be read over to the informant.
- Every such information, whether given in writing or reduced to writing as aforesaid, shall be signed by the person giving it, and the substance thereof shall be entered in a book to be kept by such officer in such form as the State Government may prescribe.
- A copy of the information as recorded...shall be given forthwith, free of cost, to the informant.
- There are three important elements of an FIR:
 - The information must relate to the commission of a cognizable offence.
 - It should be given in writing or orally to the head of the police station and.
 - It must be written down and signed by the informant, and its key points should be recorded in a daily diary.

Cognizable Offense

- A cognizable offense/case is one in which a police officer may, in accordance with the First Schedule of the CrPC, or under any other law for the time being in force, make an arrest without a warrant.
- In the First Schedule, the word 'cognizable' stands for 'a police officer may arrest without warrant'.
- The word 'non-cognizable' stands for 'a police officer shall not arrest without warrant'.

2) Consider the following statements regarding Green Hydrogen:

1. Green hydrogen is produced by burning coal, where the emissions are not released into the air and

are used as a by-product.

2. It is used to produce green ammonia, the main constituent of fertilizer production.

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 : b

The Centre's new policy offers 25 years of free power transmission for any new renewable energy plants set up to supply power for green hydrogen production before July 2025.

Green Hydrogen

- Green hydrogen is hydrogen gas produced through electrolysis of water — an energy intensive process for splitting water into hydrogen and oxygen— using renewable power to achieve this.
- Ammonia is a gas used in the production of agricultural fertilizers.
- Green ammonia is produced by using hydrogen from water electrolysis and nitrogen from the air.

The Policy

- The new policy offers 25 years of free power transmission for any new renewable energy plants set up to supply power for green hydrogen production before July 2025.
- This means that a green hydrogen producer will be able to set up a solar power plant in Rajasthan to supply renewable energy to a green hydrogen plant in Assam and would not be required to pay any inter-state transmission charges.
- The move is likely going to make it more economical for key users of hydrogen and ammonia such as the oil refining, fertilizer and steel sectors to produce green hydrogen for their own use.
- These sectors currently use grey hydrogen or grey ammonia produced using natural gas or naphtha.

3) Consider the following statements regarding Obstructive Sleep Apnea (OSA):

1. The condition occurs when muscles in the throat and upper airway relax intermittently during sleep and block the airway.
2. The pregnant women in their third trimester and breast feeding mothers are affected by this condition.
3. It leads to heart attacks and strokes and is cause of death due to depleted oxygen levels.

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

- a. 2 only
- b. 1 only
- c. 1 and 3 only
- d. 1, 2 and 3

Answer : a

India's leading singer Bappi Lahiri passed away due to a condition called Obstructive Sleep Apnea.

Obstructive Sleep Apnea

- Obstructive sleep apnea occurs when muscles in the throat and upper airway relax intermittently during sleep and block the airway.
- It usually happens in obese men, less commonly in women but it does happen.
- When a person is obese, they develop extra fat on their larynx and pharynx (muscles in the throat) that can close off their airway in sleep.
- The muscles start relaxing in sleep and it is a garden hose like situation; when there is no water, it flattens out and no air can go through.
- When no air enters the lungs, the oxygen saturation starts falling.
- When it is critical, the brain wakes the person up.
- They wake up subconsciously, the breathing restarts.
- And this cycle keeps repeating through the night.
- Although the condition doesn't kill by itself, it can lead to heart attacks and strokes due to the low oxygen level.
- In the long run, it can also result in increasing blood pressure, abnormal heart rhythms, and other metabolic disorders.
- It further leads to an increase in obesity, compounding the problem.
- It may also lead to depression.
- OSA also leads to a lot of road traffic accidents as people with OSA tend to doze off while driving.
- Symptoms: Snoring is one of the most common symptoms of OSA, but not everyone who snores has it.
- The best way to reduce symptoms of OSA is to lose weight.
- As for treatment, the best method is to use a CPAP (Continuous Positive Airway Pressure) therapy.



4) Consider the following statements regarding Synthetic Biology:

1. It is the form of engineering used to create unnatural organisms or organic molecules that can function on a non-living system.
2. It can be used to make natural compounds such as Car T cells used for the treatment of malaria and artemisinin for cancer treatment.

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 : d

The Centre is working on a national policy on synthetic biology, an emerging science that deals with engineering life forms for a wide range of applications from making designer medicines to foods.

Synthetic Biology

- Synthetic biology refers to the science of using genetic sequencing, editing, and modification to create unnatural organisms or organic molecules that can function in living systems.
- Synthetic biology enables scientists to design and synthesize new sequences of DNA from

scratch.

- The term 'synthetic biology' was first used by Barbara Hobomin in 1980, to describe bacteria that had been genetically engineered using recombinant DNA technology.
- The term has been used with reference to efforts to redesign life.

Applications

- Synthetic biology has applications in various fields from developing synthetic organisms for vaccination to creating natural products in a lab such as a vanillin, the organic compound extracted from vanilla seeds, which can now be grown in yeasts with additional plant genomes.
- In the pharmaceutical industry, synthetic biology can be used to make natural compounds such as artemisinin used for the treatment of malaria and Car T cell therapy for cancer treatment.

5) Consider the following statements regarding Hansen's Disease:

1. The disease is caused by a virus called Mycovirium leprae.
2. It occurs at all ages ranging from early infancy to very old age.
3. It is transmitted through droplets, from the nose and mouth, during close and frequent contact with untreated patients.

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

- a. 1 and 3 only
- b. 2 only
- c. 1 only
- d. 1, 2 and 3

Answer : c



The COVID-19 pandemic and its ensuing recommendations on social distancing and lockdowns caused a fall of 62.5% in the detection of active leprosy cases.

Hansen's Disease/Leprosy

- Leprosy, also known as Hansen's disease, is a chronic infectious disease caused by *Mycobacterium leprae*.
- *M leprae* multiplies slowly and the incubation period of the disease, on average, is 5 years.
- Symptoms may occur within 1 year but can also take as long as 20 years or even more.
- The disease mainly affects the skin, the peripheral nerves, mucosal surfaces of the upper respiratory tract, and the eyes.
- Untreated, leprosy can cause progressive and permanent damage to the skin, nerves, limbs, and eyes.
- Leprosy is known to occur at all ages ranging from early infancy to very old age.
- Leprosy is curable and treatment in the early stages can prevent disability.
- Leprosy is likely transmitted via droplets, from the nose and mouth, during close and frequent contact with untreated cases.