

Q: Consider the following statement regarding Hydroxyl-terminated polybutadiene (HTPB):

1. It is based on aluminised solid fuel.
2. It uses liquid oxygen (LOX) as the oxidiser.
3. Both HTPB and LOX are Red in colour.

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:

- Recently, the Indian Space Research Organisation (ISRO) successfully demonstrated a hybrid propulsion system that uses a solid fuel and liquid oxidiser.
- In the ground-based test, the flight equivalent 30 kN hybrid motor used Hydroxyl-terminated polybutadiene (HTPB)-based aluminised solid fuel and liquid oxygen (LOX) as the oxidiser.
- Conventional HTPB-based solid propellant motors used in rockets use ammonium perchlorate as oxidiser. In rocket engines, oxidisers supply the oxygen needed for combustion.
- While both HTPB and LOX are green, the cryogenic LOX is safer to handle.
- And unlike conventional solid motors, the hybrid technology permits restarting and throttling capabilities on the motor.
- The use of liquids facilitates throttling and control over the flow rate of LOX.

Q: Recently, the Karnataka Legislative Assembly passed the “anti-conversion bill”. Consider the following statement:

1. Article 19 include the right to convert another person.
2. Right to Freedom of Religion is guaranteed under Article 25 of the Constitution
3. Karnataka would become the ninth state to pass anti-conversion bill.

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:

- Recently, the Karnataka Legislative Assembly passed the “anti-conversion bill”, earlier passed by the Legislative Council with minor amendments, seeking to replace the ordinance that was in place to give effect to the bill.
- Eight states in India have passed or were implementing such a law, and Karnataka would become the ninth one.
- Right to Freedom of Religion is guaranteed under Article 25 of the Constitution, subject to public order, morality and health and to other provisions of part III of the Constitution.
- By virtue of these guaranteed fundamental rights, all persons are free to profess, practice, and propagate any religion of their choice.
- In *Rev. Stanislaus Vs. State of Madhya Pradesh and Orissa (1977)*, the Supreme Court had held that the “right to propagate” under Article 25 did not include the right to convert another person.

Q: India has won an UN award for its “India Hypertension Control Initiative (IHCI)”. Consider the following statement:

1. IHCI is under National Health Mission.
2. The initiative was launched in 2017.

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:

- IHCI has been able to leverage and strengthen the existing healthcare delivery system, hypertension control interventions under National Health Mission and improve the linkages between populations-based screening initiative with health care.
- The initiative was launched in 2017 and expanded in a phased manner to cover more than 130 districts across 23 states.
- Under the initiative, more than 34 lakh people with hypertension are taking treatment in government health facilities, including Ayushman Bharat Health Wellness Centres (HWCs). The project strategies are easily scalable within the health system.
- The strategies include a simple drug-dose-specific standard treatment protocol, ensuring adequate quantity of protocol medications, decentralization of care with follow-up and refills of medicines at Health Wellness Centres, task sharing involving all health staff and a powerful real-time information system which can track every patient for follow-up and blood pressure control.
- Under IHCI, nearly half of those who were treated had blood pressure under control.

Q: Jharkhand cabinet approved the long pending demand of Adivasi-Moolvasis (original inhabitants). Consider the following statement:

1. 1932 is consider as a cut off year.
2. In 1932, Land survey and revenue register was done.
3. Those people whose name are recorded in the land record of 1932 or before will be consider as local inhabitants of Jharkhand.

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:

- Recently, the Jharkhand cabinet approved the long pending demand of Adivasi-Moolvasis (original inhabitants) to make 1932 as the cut-off year for domicile under the title 'Jharkhand Definition of Local Persons and for Extending the Consequential, Social, Cultural and Other Benefits of such Local Persons Bill, 2022'.
- Different tribal groups have been demanding 1932 as the cut-off year for several years because of the land survey and revenue register done that year in large parts of the State.
- Shibu Soren, who is the father of Chief Minister Hemant Soren and patron of the Jharkhand Mukti Morcha, has also been advocating for 1932 as the cut-off year.
- As per the proposed domicile policy, people who have their names or their ancestor's name in the land records of 1932 or before, will be considered as local inhabitants of Jharkhand.
- But those who have lost their land records or have land records which are illegible or are landless people, can approach their respective Gram Sabhas for their inclusion.

Q: Recently, the Delhi High Court, hearing a plea by PepsiCo India against a 2021 order revoking the patent of the company on the FC5 potato variety. Consider the following statement:

1. FC5 potato variety is registered in the US as 'FL 2027'.
2. Multinational company listed the FC5 potato variety under the Protection of Plant Variety and Farmers Rights Act, 2001.
3. FL 2027 has maximum water content so it is not suitable for producing snacks.

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:

- Recently, the Delhi High Court, hearing a plea by PepsiCo India against a 2021 order revoking the patent of the company on the FC5 potato variety grown exclusively for its popular Lay's potato chips, adjourned the case till 2 November.
- It all kicked off in April 2019 with PepsiCo, alleging infringement of its intellectual property rights (IPR), suing nine Gujarat farmers for cultivating the FC5 potato variety.
- That variety, registered in the US as 'FL 2027' in 2005, was introduced in India in 2009.
- In 2016, the multinational company listed the FC5 potato variety under the Protection of Plant Variety and Farmers Rights Act, 2001.
- 'FL 2027' has five per cent less moisture content (80 per cent) than other potato varieties (85 per cent). Due to this, FL 2027 is deemed more suitable for producing snacks such as potato chips.