

Q: Consider the following statement regarding Rythu Bandhu Scheme:

1. The scheme was started by Telangana government in 2018.
2. It aims to provide a timely cash grant for the initial investment needs of farmers.
3. It is allocated only for Rabi crops.

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 Rythu Bandhu scheme, also known as the Farmer's Investment Support Scheme (FISS), is a welfare programme for farmers started by the Telangana government in 2018.
- The objective of this scheme is twofold:
 - to provide a timely cash grant for the initial investment needs of farmers
 - to ensure that farmers do not fall into the debt trap.
- Under the scheme, financial assistance of Rs 5,000 per acre per farmer each season is directly transferred to each farmer's account.
- This financial support was distributed biannually, allocated for both the kharif and rabi harvests.

Q: Consider the following statement regarding Himalayan Black Bear:

1. It is a subspecies of the Sloth Bear.
2. They live a lot in the Himalayas, in Tibet, India, Nepal, Pakistan, and China.
3. The species prefers heavily forested, broadleaved, and coniferous forests as habitat.

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:

- Himalayan Black Bear is a subspecies of the Asian black bear.
- Scientific name is *Ursus thibetanus laniger*
- They live a lot in the Himalayas, in Tibet, India, Nepal, Pakistan, and China.
- In India, they are found throughout the Himalayas, from Jammu & Kashmir to Arunachal Pradesh, and in hilly regions of other northeastern states.
- The species prefers heavily forested, broadleaved, and coniferous forests as habitat.
- It uses orchards, agricultural fields, and human habitation to move between forest patches.

Q: Consider the following statement regarding AstroSat:

1. It is India's first dedicated multi-wavelength space observatory.
2. It was launched by PSLV.

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:

- AstroSat is India's first dedicated multi-wavelength space observatory aimed at studying celestial sources in X-ray, optical, and UV spectral bands simultaneously.
- AstroSat, with a lift-off mass of 1515 kg, was launched by the Indian launch vehicle PSLV from Satish Dhawan Space Centre, Sriharikota, on September 28, 2015, into a 650 km orbit inclined at an angle of 6 degrees to the equator.
- The spacecraft control centre at Mission Operations Complex (MOX) of ISRO Telemetry, Tracking and Command Network (ISTRAC), Bengaluru, manages the satellite during its entire mission life.
- The minimum useful life of the AstroSat mission is around 5 years.

Q: Consider the following statement regarding Zojila Pass:

1. It is also known as 'The Mountain Pass of Blizzards'.
2. It is located on the Srinagar-Kargil-Leh highway.
3. It will be India's longest road tunnel and Asia's longest bi-directional tunnel.

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:

- Zojila Pass, also known as 'The Mountain Pass of Blizzards', is a high mountain pass located in the Kargil district of Ladakh.
- It is located on the Srinagar-Kargil-Leh highway (NH-1) at a height of 11,650 feet.
- It lies in the Greater Himalayan Range.
- The pass remains closed for almost half of the year due to heavy snowfall.
- It will be India's longest road tunnel and Asia's longest bi-directional tunnel.

Q: Consider the following statement regarding Green Leaf Volatiles:

1. It represents an important group of plant volatiles.
2. They consist of six carbon compounds.
3. The release of GLVs is caused only by bacterial infection.

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:

- Green Leaf Volatiles represents an important group of plant volatiles.
- They consist of six carbon (C₆) compounds, including alcohols, aldehydes, and esters, and are released from almost every plant.
- The release of GLVs is caused by mechanical damage or herbivory by fungal or bacterial infection.
- These are implicated in a panoply of interactions; they have been reported to repel or attract herbivores and their natural enemies.
- Plants have two major defence mechanisms, involving a chain of molecular reactions.