

Q: Consider the following:

1. Pasamlung
2. Doklam
3. Zangan

Which of the following areas of Bhutan is in dispute with China?

- a) 1 and 2
- b) 2 and 3
- c) 1 and 3
- d) 1, 2 and 3

Ans: a

Explanation:

- China disputes the following territories with Bhutan:
 - ❖ In the north, Pasamlung and Jakarlung valleys, both of which are culturally vital for Thimphu and in the west, Doklam, Dramana, and Shakhatoe, Yak Chu and Charithang Chu, and Sinchulungpa and Langmarpo valleys.
 - ❖ The Doklam trijunction is crucial for India as it lies precariously close to the Siliguri Corridor.
 - ❖ Recently, China has also claimed the Sakteng sanctuary, which is on Bhutan's east and does not border China.

Q: Consider the following statement regarding El-Nino:

1. Anywhere from 96-104% of the Long Period Average (LPA) is considered 'deficient'.
2. It is a cyclical phenomenon of warming in the central Pacific Ocean.
3. It diminished rainfall in the country's west, northwest and in western parts of central India.

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:

- The key factor believed to be playing spoilsport is the development of 'El Nino', a cyclical phenomenon of warming in the central Pacific that in six out of ten years is linked to diminished rainfall in the country's west, northwest and in western parts of central India.
- Since 2019, India has been under the influence of the converse 'La Nina' or a cooling in those regions, and therefore, getting substantial monsoon rains.
- In 2019 and 2020, for instance, India saw monsoon rains over 10% and 11% of the 87 cm LPA (a 50-year average from 1971-2022). Last year saw 6% more rains than what is usual. 'Normal' monsoon rainfall over India during June-September is 87 cm (considered 100% of the LPA) though this involves wide spatial variability.
- Anywhere from 96-104% of the Long Period Average (LPA) is considered 'normal' with 90-95% considered 'below normal' and less than 90% marked as 'deficient.'

Q: Consider the following statement:

1. India Meteorological Department (IMD) uses the long-period average (LPA) to determine if the rainfall is normal, below normal, or above normal.
2. The Long Period Average (LPA), is the rainfall recorded over a particular region for a given interval.

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:

- IMD uses the long-period average (LPA) to determine if the rainfall is normal, below normal, or above normal.
- The LPA, is the rainfall recorded over a particular region for a given interval (like a month or season) averaged over a long period like 30 years, 50 years, etc.

Q: Consider the following statements:

- a) In last seven decades, there has been a greater-than-half-degree Celsius rise in temperatures in the central, equatorial Pacific Ocean due to El-Nino.

- b) The weather models indicate the development of a 'positive' phase of the Indian Ocean Dipole.
- c) 'El Nino' resulted in a reduced snow cover in Eurasia.

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:

- From 1951-2022, there have been 15 'El Nino' years, defined as a greater-than-half-degree Celsius rise in temperatures in the central, equatorial Pacific Ocean with nine of those years witnessing 'below normal' rains. In 2015, the last 'strong' El Nino year (>1.5 C rise), monsoon rains shrivel by 14%. A 'weaker' El Nino (a sub-1C rise) in 2018 saw a contraction of 7.4%.
- Experts say that while 'El Nino' conditions are imminent, there are ameliorating factors that may blunt its impact. One, 'El Nino' is only likely to begin to take root in the second half of the monsoon season – August and September.
- The weather models also indicate the development of a 'positive' phase of the Indian Ocean Dipole (IOD, or warmer temperatures in the Arabian Sea and hence more moisture and rainfall over India) during these months and so, a somewhat reduced impact of the 'El Nino'.
- Another factor that could blunt the 'El Nino' is reduced snow cover in Eurasia.

Q: Consider the following statement regarding 'RAPIDX':

1. It is India's first semi-high-speed regional rail services.
2. It is tapping green energy by the installation of solar panels on stations.
3. It is being implemented in all the metropolitan cities of India.

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's first semi-high-speed regional rail services have been named 'RAPIDX' by the National Capital Region Transport Corporation (NCRTC).
- The trains will run on the Regional Rapid Transit System (RRTS) corridors, being implemented to connect key urban nodes across the National Capital Region (NCR).
- It is a joint venture company of the Union government and states of Delhi, Haryana, Rajasthan and Uttar Pradesh.
- The NCRTC is tapping green energy by the installation of solar panels on stations and depots as well as the use of blended power in traction which is planned to be increased progressively.