

**Q: Which among the following country is not the part of Exercise Cobra Warrior?**

- a) Australia
- b) India
- c) South Africa
- d) Singapore

Ans: a

Explanation:

- The Exercise Cobra Warrior is a multilateral Air exercise in which Air Forces from Finland, Sweden, South Africa, United States of America and Singapore would also be participating alongside Royal Air Force and IAF.
- The IAF is participating in 2023 with five Mirage 2000 fighters, two C-17 Globemaster III and an IL-78 mid air refueller aircraft.

**Q: UN Women was established by merging four previously distinct parts of the UN system. Which among the the following is not one among them?**

- a) Division for the Advancement of Women
- b) Basic right of women safeguards
- c) Office of the Special Adviser on Gender Issues and Advancement of Women
- d) United Nations Development Fund for Women

Ans: b

Explanation:

- UN Women is the UN entity dedicated to gender equality and the empowerment of women. UN Women was established to accelerate progress on meeting their needs worldwide.
- In July 2010, the United Nations General Assembly created UN Women, the United Nations Entity for Gender Equality and the Empowerment of Women.
- It merges and builds on the important work of four previously distinct parts of the UN system, which focused exclusively on gender equality and women's empowerment:
  - a) Division for the Advancement of Women (DAW).
  - b) International Research and Training Institute for the Advancement of Women (INSTRAW).
  - c) Office of the Special Adviser on Gender Issues and Advancement of Women (OSAGI).
  - d) United Nations Development Fund for Women (UNIFEM).

**Q: Consider the following statement:**

1. Global warming tends to warm the upper atmosphere faster than the air near the surface.
2. Sinking air is warmer due to global warming, and thus produces heat waves.

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:

- Finally, the so-called lapse rate, the rate at which temperatures cool from the surface to the upper atmosphere is declining under global warming. In other words, global warming tends to warm the upper atmosphere faster than the air near the surface.
- This in turn means that the sinking air is warmer due to global warming, and thus produces heat waves as it sinks and compresses.

**Q: Consider the following statement regarding Heat wave:**

1. A region has a heat wave if its ambient temperature deviates by at least 4.5-6.4°C from the long-term average.
2. Heat waves tend to be confined to north and northwest India in El Niño years.
3. The last three years have been La Niña years.

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:

- According to the IMD, a region has a heat wave if its ambient temperature deviates by at least 4.5-6.4°C from the long-term average. There is also a heat wave if the maximum temperature crosses 45°C (or 37°C at a hill-station).
- Heat waves are expected to become longer and more intense and frequent over the Indian subcontinent. In 2022 itself, the heat waves started early and were more numerous.
- They also extended further south into peninsular India due to a north-south pressure pattern set up by the La Niña, a world-affecting weather phenomenon in which a band of cool water spreads east-west across the equatorial Pacific Ocean.
- The last three years have been La Niña years, which has served as a precursor to 2023 likely being an El Niño year. The El Niño is a complementary phenomenon in which warmer water spreads west-east across the equatorial Pacific Ocean. Heat waves tend to be confined to north and northwest India in El Niño years.

**Q: Consider the following statement regarding Atacama Large Millimetre/submillimetre Array (ALMA):**

1. It is a state-of-the-art telescope that studies celestial objects.
2. It helps astronomers examine dim and distant galaxies and stars.
3. It fails to detect extremely faint radio signals.

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:

- ALMA is a state-of-the-art telescope that studies celestial objects at millimetre and submillimetre wavelengths, they can penetrate through dust clouds and help astronomers examine dim and distant galaxies and stars out there.
- It also has extraordinary sensitivity, which allows it to detect even extremely faint radio signals.
- The telescope consists of 66 high-precision antennas, spread over a distance of up to 16 km.