

**Q: Consider the following statements with respect to Square Kilometre Array Observatory (SKAO)**

1. It is a single telescope installed in radio-quiet region of Argentina.
2. SKAO will observe and map galaxies at the edge of the observable universe.
3. India is not a part of this world's largest radio telescope project.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All Three
- d) None of the above

Ans: a

Explanation:

- The SKAO is a next-generation radio astronomy-driven Big Data facility that will revolutionise our understanding of the Universe and the laws of fundamental physics.
- The Square Kilometre Array (SKA) is an international project to build the world's largest radio telescope.
- The SKAO is not a single telescope but an array of thousands of antennas, to be installed in remote radio-quiet locations in South Africa and Australia.
- It will operate as one large unit meant to observe and study celestial phenomena.
- Currently, the Five-hundred-meter Aperture Spherical Radio Telescope (FAST) is the world's largest single-unit radio telescope.
- Member nations – Some of the countries taking part in building the SKA include the UK, Australia, South Africa, Canada, China, France, India, Italy and Germany.

**Q: Consider the following statements with respect to Global Snow Leopard and Ecosystem Protection Programme (GSLEP):**

1. It is an alliance between 12 snow leopard range countries, organizations and communities to protect the snow leopard and its mountain ecosystems.
2. It aims to achieve the goals of the Bletchley Declaration.
3. India is one among the 12 snow leopard range countries and a member of GSLEP.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All Three
- d) None of the above

Ans: b

Explanation:

- Global Snow Leopard and Ecosystem Protection Programme (GSLEP) is an alliance of 12 snow leopard range countries, multi-lateral institutions, NGOs, scientists and local communities.
- It seeks to address high-mountain development issues using the conservation of the charismatic and endangered snow leopard as a flagship.
- The Bishkek Declaration is a 2013 pledge by 12 countries to ensure the well-being of snow leopards and the people who live among them.
- "Secure 20 by 2020" is an initiative of GSLEP that identified and aims to secure at least 20 snow leopard landscapes across the cat's range by 2020.
- The 12 snow leopard range countries are Afghanistan, Bhutan, China, India, Kazakhstan, Kyrgyzstan (Kyrgyz Republic), Mongolia, Nepal, Pakistan, Russia, Tajikistan and Uzbekistan.

**Q: Consider the following statements with respect to Red Corner Notices:**

1. They are issued for fugitives who are wanted either for prosecution or to serve a sentence.
2. In India, the Central Bureau of Investigation (CBI) is the officially designated agency to publish, maintain and update the Red Corner Notices.

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

Ans: c

Explanation:

- INTERPOL Notices are international requests for cooperation or alerts allowing police in member countries to share critical crime-related information.
- Notices are issued at the request of a member country's INTERPOL National Central Bureau and are made available for all member countries to consult in our Notices database.
- Red Corner Notices – Are issued for fugitives wanted either for prosecution or to serve a sentence.
- It is based on an arrest warrant or court order issued by the judicial authorities in the requesting country.
- INTERPOL has designated a National Central Bureau in all its 195 member countries as a single point of contact between law enforcement agencies of that member and INTERPOL.
- In India, the Central Bureau of Investigation (CBI) is the officially designated agency to publish, maintain and update the Red Corner Notices.

**Q: Salton Sea, sometimes seen in the news is located in which of the following country?**

- a) Russia
- b) Democratic Republic of the Congo (DRC)
- c) Australia
- d) United States of America

Ans: d

Explanation:

- Salton Sea is a saline lake in the lower Colorado Desert, southern California of United States of America.
- In rare-earth elements (REEs), lithium stands out because of its usefulness and potential value.
- Recently World's largest reserve of Rare Earth Element, Lithium was discovered Beneath Salton Sea.

**Q: Consider the following statements:**

**Statement-I:** The amount of carbon dioxide in the atmosphere of a planet can be used as an indication for habitable zones.

**Statement-II:** The decrease in carbon dioxide in the planet implies that some of it is being dissolved into an ocean or maybe even captured by a planet-scale biomass.

Select the correct answer using the codes given below:

- a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c) Statement-I is correct but Statement-II is incorrect
- d) Statement-I is incorrect but Statement- II is correct

Ans: a

Explanation:

- The amount of carbon dioxide in the atmosphere of a planet and its neighbouring planet can be used as an indication for habitable zones.
- If a planet has reduced amounts of carbon dioxide in atmosphere when compared to neighbouring planets, that planet could have liquid water on its surface.
- The decrease in carbon dioxide implies that some of it is being dissolved into an ocean or maybe even captured by a planet-scale biomass.
- Finding out water on exoplanets is an important step towards discovering potentially habitable distant worlds, which is crucial in the search for extra-terrestrial life.