

**Q: Consider the following statement regarding INS Kirpan:**

1. It is a Khukri class missile corvette.
2. The Khukri class are equipped with Diesel Engines assembled in India.
3. It does not perform the role of Humanitarian Assistance and Disaster Relief (HADR) operations.

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:

- INS Kirpan is an indigenously-built in-service missile.
- It is a Khukri class missile corvette commissioned into the Navy on January 12, 1991.
- It has a displacement displacing capacity of close to 1,400 tonnes.
- It is capable of a speed of more than 25 knots.
- The Khukri class are equipped with Diesel Engines assembled in India.
- The ship is fitted with a medium-range gun, 30 mm close-range guns, chaff launchers, and surface-to-surface missiles.
- It performs a wide variety of roles, including coastal and offshore patrol, coastal security, surface warfare, anti-piracy, and Humanitarian Assistance and Disaster Relief (HADR) operations.

**Q: Consider the following statement regarding recently discovered Y Chromosome:**

1. It possesses genes that are linked to growth.
2. Chromosome is a thread-like structure located inside the nucleus of animal and plant cells.
3. Chromosome is made of protein and a single molecule of deoxyribonucleic acid (DNA).

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:

- Researchers have discovered that the Y chromosome possesses genes that are vital to biological functions, including those linked to ageing and lifespan regulation.
- Genome sequences of the Neanderthals, an ancient relative of the modern human, harbour telltale signs of the replacement of the Y chromosome beginning from modern humans.
- The Y chromosome may have to relinquish its title of “master of maleness” to another chromosome in the times to come.
- Chromosome is a thread-like structure located inside the nucleus of animal and plant cells.
- Each chromosome is made of protein and a single molecule of deoxyribonucleic acid (DNA).

**Q: Consider the following statement regarding National Internet Exchange of India (NIXI):**

1. It is non-profit organization under the Companies Act 2013.
2. It is tasked to increase Internet penetration and adoption in India by facilitating the various infrastructure aspects.

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:

- National Internet Exchange of India (NIXI) was established in 2003 as a not-for-profit organization under the Companies Act 2013.
- It is tasked to increase Internet penetration and adoption in India by facilitating the various infrastructure aspects to enable the Internet ecosystem to be managed and used by the masses.

**Q: Consider the following statement regarding Al-Hakim Mosque:**

1. It is constructed of brick with stone facades and minarets.

2. The plan of the mosque consists of a triangle with four arcades centering a courtyard.
3. It is a historical mosque located in Cairo.

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:

- Al-Hakim Mosque is constructed of brick with stone facades and minarets.
- It is a historical mosque located in Cairo, Egypt.
- The plan of the mosque consists of a triangle with four arcades centering a courtyard. Two minarets flank either side of the façade.
- Originally built outside Cairo's northern wall, the mosque was incorporated within the city in 1087, transforming its own northern wall and minarets into an integral part of the fortifications.
- The main entrance lies on the western facade of the mosque and is monumental in size and design. It is one of the oldest architectural examples of projecting entrances.

**Q: Consider the following statement regarding Mediterranean Sea:**

1. It is bordered by Europe, Asia and Africa.
2. It is connected to the Atlantic Ocean via the narrow Strait of Gibraltar.
3. It is connected to the Black Sea via Suez Canal.

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:

- Mediterranean Sea is an intercontinental sea that is bordered by the continent of Europe in the north, by Asia in the east, and by Africa in the south.
- In the west, the Mediterranean Sea is connected to the Atlantic Ocean via the narrow Strait of Gibraltar.
- In the extreme northeast, it is connected to the Black Sea via the Dardanelles Strait, the Sea of Marmara, and the Bosphorus Strait.
- The Mediterranean Sea is also connected to the Red Sea via the Suez Canal in the southeast.