

Q: Consider the following statement regarding Marburg virus:

1. Recently, two cases of the deadly Marburg virus have been identified in Ghana.
2. Marburg is almost as deadly as Ebola.
3. The virus can be transmitted to humans by aedes mosquitoes bite.

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:

- Recently, two cases of the deadly Marburg virus have been identified in Ghana, the first time the Ebola-like disease has been found in the West African nation.
- No treatment or vaccine exists for Marburg, which is almost as deadly as Ebola.
- The WHO said Guinea had confirmed a single case in an outbreak declared over in September 2021.
- The virus can be transmitted to humans as a result of long exposures in mines or caves that are inhabited by Rousettus bat colonies, which are considered to be the natural hosts of Marburg.

Q: Consider the following statement:

1. Antiviral vaccine is used to treat Marburg virus.
2. Marburg virus was first detected in Germany.
3. Last outbreak of Marburg virus is from African countries.

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:

- Marburg virus was first detected in 1967, when the outbreak occurred in Marburg and Frankfurt in Germany and in Belgrade, Serbia.
- Previous outbreaks and sporadic cases of Marburg in Africa have been reported in Angola, the Democratic Republic of the Congo, Kenya, South Africa and Uganda, according to the World Health Organization.
- While there are no vaccines or antiviral treatments available for Marburg virus, monoclonal antibodies that are used to treat Ebola virus can also be tested for Marburg.

Q: Researchers have taken a significant leap toward solving the mystery of why few pockets of glaciers in the Karakoram Range are resisting glacial melt due to global warming. Consider the following statement:

1. Recent revival of western disturbance has been instrumental in triggering Karakoram Anomaly.
2. Role of snowfall could also be another factors for triggering Karakoram Anomaly.

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:

- It claimed that the recent revival of western disturbance has been instrumental in triggering and sustaining the Karakoram Anomaly since the advent of the 21st century.

- It is for the first time that a study brought forth the importance that enhanced WD-precipitation input during the accumulation period plays in modulating regional climatic anomaly.
- WDs are the primary feeder of snowfall for the region during winters. The study suggests they constitute about around 65% of the total seasonal snowfall volume and about 53% of the total seasonal precipitation, easily making them the most important source of moisture.
- The analysis for the tracks passing through the Karakoram reveals the role of snowfall as a crucial factor in mass balance estimations.

Q: Recently, Prime Minister unveiled ‘SPRINT Challenges’. Consider the following statement:

1. It is a joint initiative of HAL and DRDO.
2. This project will be developing new indigenous technology especially for Air force.

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: d

Explanation:

- In a bid to achieve ‘Aatmanirbharta’ in defence and as part of ‘Azadi ka Amrit Mahotsav’, NIIO, in conjunction with the Defence Innovation Organisation (DIO), aims to induct at least 75 new indigenous technologies/products into the Indian Navy.
- This collaborative project is named SPRINT — Supporting Pole-Vaulting in R&D through iDEX (Innovations for Defence Excellence), NIIO and TDAC (Technology Development Acceleration Cell).

Q: Shanghai Cooperation Organisation (SCO) has four States. Which among the following is not among them?

- a) Pakistan
- b) Afghanistan
- c) Iran
- d) Belarus

Ans: a

Explanation:

- The Shanghai Cooperation Organisation (SCO) grouping comprises eight member states: India, Kazakhstan, China, Kyrgyzstan, Pakistan, Russia, Tajikistan and Uzbekistan.
- The SCO also has four observer states; Afghanistan, Iran, Belarus and Mongolia of which Iran and Belarus are now moving towards full membership.