

Q: Consider the following statement regarding Marburg disease:

- 1) The disease was associated to African green monkeys.
- 2) The disease causes haemorrhagic fever.
- 3) Marburg virus disease results from prolonged exposure to viral disease

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:

- As per WHO, the Marburg virus disease (MVD) is a highly virulent disease that causes haemorrhagic fever. The fatality ratio of the disease after contracting it is up to 88 per cent.
- In 1967, two large outbreaks of Marburg disease occurred simultaneously in Frankfurt, Germany and Belgrade, Serbia. The disease was associated to African green monkeys (*Cercopithecus aethiops*) imported by Uganda.
- Marburg virus disease results from prolonged exposure to mines or caves inhabited by *Rousettus* bat colonies.

Q: Consider the following statement:

- 1) Article 178 contains the corresponding position for Speaker and Deputy Speaker of the Parliament.
- 2) Election of Speaker and deputy speaker is mandatory under the constitution.
- 3) Once elected, the Deputy Speaker usually continues in office for the entire duration of the House.

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:

- Article 178 contains the corresponding position for Speaker and Deputy Speaker of the Legislative Assembly of a state.
- Both Articles 93 and 178 use the word “shall”, indicating that the election of Speaker and Deputy Speaker is mandatory under the Constitution.
- Once elected, the Deputy Speaker usually continues in office for the entire duration of the House.

Q: Consider the following statement regarding International Solar Alliance:

- 1) It promotes the use of solar energy in the Agriculture, Health, Transport and Power Generation sectors.
- 2) It is partnering with multilateral development banks (MDBs) to deploy cost-effective and transformational solutions.

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:

- The International Solar Alliance is an international organisation with 114 Member and Signatory countries.
- It promotes the use of solar energy in the Agriculture, Health, Transport and Power Generation sectors. ISA member countries are driving change by enacting policies and regulations, sharing best practices, agreeing on common standards, and mobilising investments.
- ISA is partnering with multilateral development banks (MDBs), development financial institutions (DFIs), private and public sector organisations, civil society, and other international institutions to deploy cost-effective and transformational solutions through solar energy, especially in the least Developed Countries (LDCs) and the Small Island Developing States (SIDS).

Q: Aubrites contain sulfides of

- a) Chromium
- b) Manganese
- c) Titanium
- d) All the above

Ans: d

Explanation:

- Aubrites contain sulfides of calcium, chromium, manganese, titanium, and sodium, all normal lithophile elements and silicon-bearing FeNi metal. They share a similar highly reduced nature, unusual mineralogy, and oxygen-isotopic composition with enstatite chondrites.

Q: Recently Geological survey of India discovered lithium in Jammu and Kashmir. Consider the following statement:

- 1) With this discovery Indian government aims to achieve 30% EV penetration in private cars.
- 2) China currently controls 77% of the global lithium-ion battery manufacturing capacity.
- 3) India currently imports all of its Li from China.

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:

- China currently controls 77% of the global lithium-ion battery manufacturing capacity and is home to six of the world's 10 manufacturing companies. As a result, the EU, the U.S., Canada, India, and other major economies have been trying to leverage alternative supplies that can challenge China's geopolitical dominance in this area.
- As India currently imports all of its Li from Australia and Argentina and 70% of its Li-ion cell requirement from China and Hong Kong, the lithium reserves in J&K could boost the domestic battery-manufacturing industry. If the perceived size of the mineral reserves in J&K is borne out by further exploration, India could jump ahead of China vis-à-vis its Li stockpile.
- The J&K reserves will also help advance the Indian government's ambitious plan of "30% EV penetration in private cars, 70% for commercial vehicles, and 80% for two and three-wheelers by 2030 for the automobile industry." They will strengthen India's National Mission on Transformative Mobility and Battery Storage as well.