

Q: Consider the following statement regarding Mount Vinson:

1. It is the highest mountain in Antarctica.
2. It is part of the Sentinel Range of the Ellsworth Mountains.
3. Mount Ronnie is the highest point of Antarctica.

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:

- Mount Vinson is the highest mountain in Antarctica.
- Mount Vinson rises 4,892 metres (16,050 feet) above sea level.
- It is part of the Sentinel Range of the Ellsworth Mountains, near the Ronne Ice Shelf.
- There are five other tall mountains in the same area as Mount Vinson—the next five highest summits on the continent of Antarctica—which are collectively referred to as Vinson Massif.
- It is located about 1,200 kilometres from the South Pole, one of the coldest places on Earth.

Q: Consider the following statement regarding Hydrogen cyanide:

1. It is used as a solvent.
2. It interferes with the body's use of oxygen and may cause harm to the brain, heart, blood vessels, and lungs.
3. It can be used for the production of synthetic fibres, plastics, dyes, and pesticides.

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:

- Hydrogen cyanide is a colourless or pale-blue liquid or gas with a bitter, almond-like odour.
- It is also known as hydrocyanic acid or HCN.
- Hydrogen cyanide interferes with the body's use of oxygen and may cause harm to the brain, heart, blood vessels, and lungs.
- It is an excellent solvent for many salts, but it is not widely used as a solvent because of its toxicity.
- It may be used in the workplace for fumigation, electroplating, mining, chemical synthesis, and the production of synthetic fibres, plastics, dyes, and pesticides.

Q: Consider the following statement regarding Noma disease:

1. It is a rapidly progressing severe gangrenous disease of the mouth and the face.
2. The disease, also called cancrum oris or gangrenous stomatitis, is mostly found in sub-Saharan Africa.

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:

- Noma disease is a rapidly progressing severe gangrenous disease of the mouth and the face.
- The disease, also called cancrum oris or gangrenous stomatitis, is mostly found in sub-Saharan Africa.

- It mostly affects children aged 2–6 years suffering from malnutrition, affected by infectious diseases, living in extreme poverty with poor oral health or with weakened immune systems.
- It can also occur among immunocompromised adults due to HIV, leukaemia and other diseases.
- It starts as a soft tissue lesion (a sore) of the gums.

Q: Consider the following statement regarding Sargasso Sea:

1. It is located entirely within the Atlantic Ocean.
2. It is the only sea without a land boundary.
3. The Gulf Stream establishes the Sargasso Sea's western boundary.

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:

- The Sargasso Sea, located entirely within the Atlantic Ocean, is the only sea without a land boundary.
- It is named for Sargassum, a holopelagic, golden drift algae that can aggregate to form extensive floating mats on the surface of the ocean.
- This extraordinary open-ocean ecosystem is bounded by currents circulating around the North Atlantic subtropical gyre and is unique for supporting the centre of distribution and abundance for a community of continuously pelagic drift algae.
- It provides habitats, spawning areas, migration pathways and feeding grounds to a diverse assortment of flora and fauna, including endemic, endangered, and commercially important species.
- The Gulf Stream establishes the Sargasso Sea's western boundary, while the Sea is further defined to the north by the North Atlantic Current, to the east by the Canary Current, and to the south by the North Atlantic Equatorial Current.

Q: Consider the following statement regarding the Rhine River:

1. It is the 12th longest river in Europe.
2. It originates from the southeastern part of the Swiss Alps in the Canton of Grisons, Switzerland.
3. Paris is located on the bank of this river.

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:

- Rhine River is the 12th longest river in Europe, stretching approximately 1,230 kilometres from its source in Switzerland to its mouth on the North Sea in the Netherlands.
- It originates from the southeastern part of the Swiss Alps in the Canton of Grisons, Switzerland.
- This transboundary river drains an area of about 185,000 square kilometres and flows through six countries: Switzerland, Germany, Austria, Liechtenstein, France, and the Netherlands.
- The major cities along the Rhine include Basel (Switzerland), Cologne, Bonn, Duisburg, Mainz, Leverkusen, and Neuss (Germany), Strasbourg (France), and Rotterdam and Utrecht (Netherlands).