

Q: Consider the following statement regarding rhododendrons in India:

1. Maximum type of rhododendrons found Sikkim.
2. Darjeeling and Sikkim Himalayas comprise only 0.3% of India's geographical area.
3. Sikkim is home to one third of rhododendrons in India alone.

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:

- There are 132 taxa (80 species, 25 subspecies and 27 varieties) of rhododendrons found in India.
- Of the 45 taxa recorded in the publication, 24 are found in the Darjeeling Himalayas and 44 in the Sikkim Himalayas.
- Darjeeling and Sikkim Himalayas comprise only 0.3% of India's geographical area but the region is home to one-third (34%) of all rhododendron types. This highlights the ecological significance of the region as far as an indicator species like rhododendron is concerned.

Q: Consider the following statement regarding Poliovirus:

1. It invade the circulatory system.
2. There is no cure for polio.
3. Jonas Salk developed the first polio vaccine.

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:

- Poliovirus can invade the central nervous system and as it multiplies, destroy the nerve cells that activate muscles, causing irreversible paralysis in hours.
- There are three types of polio virus serotypes: types 1, 2 and 3. According to the India Polio Learning Exchange (along with UNICEF), of those paralysed, 5-10% die when their breathing muscles become immobilised.
- There is no cure for polio, but there are safe, effective vaccines which, given multiple times, protect a child for life. Polio held the world in a bind of fear until Jonas Salk developed the first polio vaccine.
- Later, Albert Sabin made a 'live' polio vaccine that could be administered orally which became the tool of the trade, especially for nations carrying out mass immunisation campaigns, including India.

Q: Consider the following statement:

1. Underwater sound pressure levels in the Indian waters are 102-115 decibels.
2. The East Coast level is slightly higher than that of the West.

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 UNE or underwater sound pressure levels in the Indian waters are 102-115 decibels, relative to one microPascal (dB re 1Pa).
- The East Coast level (10 dB re 1Pa) is slightly higher than that of the West. There is an increase by a significant value of about 20 dB re 1Pa.

Q: Consider the following statement:

1. The Union government announced the first National Polio Immunisation Day in 1995.
2. The last case of poliovirus was recorded in West Bengal.
3. According to WHO, Afghanistan and Pakistan had cases of wild poliovirus type 1.

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:

- In 2012, the WHO removed India from the list of endemic countries.
- Seen as a massive achievement in public health, the campaign had begun years ago. While Rotary International launched its polio eradication campaign, Polio Plus, in 1985, it was in 1986 that it provided a \$2.6 million grant to Tamil Nadu for a pilot polio vaccination campaign.
- In 1995, the Union government announced the first National Polio Immunisation Day.
- As per the India Polio Learning Exchange portal, the last case of poliovirus type 2 case was recorded in India in October 1999 at Aligarh, Uttar Pradesh; the last case of poliovirus type 3 case was on October 22, 2010, at Pakur, Jharkhand; and the last case of poliovirus type 1 case was recorded on January 13, 2011, at Howrah, West Bengal.
- As of October 2022, the WHO said only two countries worldwide remain with indigenous transmission of wild poliovirus type 1 (WPV1) — Afghanistan and Pakistan.

Q: Consider the following statement regarding Rhododendron:

1. Its meaning is rose tree in Greek.
2. It is an indicator species for climate change.
3. It was first discovered in Sikkim.

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:

- Rhododendron, meaning rose tree in Greek, is considered an indicator species for climate change.
- The flowering season for rhododendrons starts in March and continues till May. However, recently, flowering was found to begin as early as in January for some species.
- Rhododendrons have a prominent place in the country's botanical history. They were first recorded by Captain Hardwick in Jammu and Kashmir in 1776 where he spotted Rhododendron arboreum.