

Q: Consider the following statement regarding Cloud Seeding:

1. It create artificial rainfall.
2. Silver iodide, potassium iodide or dry ice is dumped onto the clouds causing rainfall.
3. It works when there is no cloud in the atmosphere.

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:

- Cloud seeding is a kind of weather modification technology to create artificial rainfall. It works only when there are enough pre-existing clouds in the atmosphere.
- Drones are charged into the clouds and cause an electric shock due to which they clump together and cause rainfall.
- Otherwise, in this process either silver iodide, potassium iodide or dry ice (solid carbon dioxide) is dumped onto the clouds causing rainfall. The seeds of chemicals can be delivered by plane or simply by spraying from the ground.
- Cloud-seeding chemicals can be dispersed in clouds either by fly-through aircraft or by ground-based dispersion devices that use rockets or guns to fire canisters into the sky.

Q: Consider the following statement regarding Visceral Leishmaniasis:

1. It is also known as “Break bone” disease.
2. It is spread by sandfly bites.
3. The vector flies live in muddy areas.

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:

- Visceral Leishmaniasis, also known as Kala-Azar or black fever, is spread by sandfly bites, which carry ‘Leishmania donovani’ a parasite in their hair.
- The vector flies live in muddy areas.
- In 2020, ten countries like Brazil, China, Ethiopia, Eritrea, India, Kenya, Somalia, South Sudan, Sudan, and Yemen, accounted for more than 90 per cent of all new kala-azar cases reported to the WHO.
- The symptoms of kala-azar include anemia, weight loss, spleen and liver enlargement, and irregular fever episodes lasting several days.

Q: Consider the following statement:

1. Telangana and West Bengal witness highest inflation measured by consumer price index 2022.
2. Jammu and Kashmir witness price rise higher than the national average in 2022.

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:

- While headline inflation measured by the Consumer Price Index has averaged 6.8% in the first seven months of 2022, well above the 6% upper tolerance threshold set by policy makers, consumers in Telangana, West Bengal and Sikkim faced the steepest spike in prices, with their combined retail inflation for rural and urban areas averaging 8.32%, 8.06%, and 8.01%, respectively.
- As many as 14 States, along with the erstwhile State of Jammu & Kashmir, have witnessed price rise higher than the national average through 2022, with all but two of these States seeing higher than 7% inflation.

Q: Supreme Court dismissed a writ petition challenging provisions of the Special Marriage Act (SMA), 1954. Which among the following article violates the provision of SMA?

- a) Article 14
- b) Article 15
- c) Article 21
- d) All the above

Ans: d

Explanation:

- Recently, the Supreme Court dismissed a writ petition challenging provisions of the Special Marriage Act (SMA), 1954 requiring couples to give a notice declaring their intent to marry 30 days before their marriage.
- The writ petition has called these provisions violative of the right to privacy guaranteed under Article 21 of the Constitution as they require couples to give a notice of 30 days before the date of marriage inviting objections from the public.
- The writ petition has also said that the provisions contravene Article 14 on prohibition of discrimination on grounds of religion, race, caste and sex as well as Article 15 on right to equality as these requirements are absent in personal laws.

Q: Consider the following statement regarding Whale Shark:

1. It is the largest fish on Earth.
2. It is distributed widely across tropical and warm temperate seas.
3. The largest whale shark aggregation is along the Bay of Bengal coast.

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:

- The whale shark (*Rhincodon typus*) is the largest fish on Earth and a keystone species in marine ecosystems.
- It can grow to a length of approximately 18 metres and weigh as much as 21 tonnes.
- Although distributed widely across tropical and warm temperate seas, limited information is available on the population trends of this species, especially along the Indian coastline.
- The whale shark is distributed all along the Indian coast. However, the largest whale shark aggregation is along the Gujarat coast.