

Q: Consider the following statement regarding the Plateaus in the Western Ghats:

1. The Western Ghats is one of four global biodiversity hotspots in India.
2. Plateaus are dominant landscapes in the Western Ghats.
3. Western Ghat is significant because of predominance of vulnerable species

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 Western Ghats is one of four global biodiversity hotspots in India, and ARI in Pune has been studying its biodiversity, particularly its rock outcrops, for a decade.
- Plateaus are dominant landscapes in the Western Ghats, significant because of the predominance of endemic species.
- They are classified as a type of rock outcrop and provides unique and challenging environment for species to adapt to.
- These outcrops have seasonal water availability, limited soil and nutrients, making them ideal laboratories to study the effects of climate change on species survival.
- Plateaus are thus a valuable source of insight into how species can survive in extreme conditions.

Q: Consider the following statement:

1. Sauropods is one of the largest dinosaurs to have roamed the Earth.
2. Titanosaurs displayed a notable reproductive trait unique to modern-day birds.
3. The egg of Titanosaurs has two yolks.

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:

- The discovery suggests that Titanosaurs, one of the largest dinosaurs to have roamed the Earth, displayed a notable reproductive trait unique to modern-day birds.
- The unique feature of egg within the egg has not been reported from any other dinosaur or even in other reptiles.
- The egg has two yolks; this feature can be seen in birds, suggesting they share similar reproductive traits.

Q: Consider the following statement:

1. S20 will address the scientific aspects such as climate change, food security and health.
2. Vigyanika will showcase India's rich legacy of promoting science & inculcating scientific temper.

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:

- India is also going through the Presidency phase of the G20 and Indian Institute of Science is the Secretariat for Science 20 (S20).
- S20 will address the scientific aspects such as climate change, food security and health.
- Vigyanika will have six sessions, including keynote lectures, panel discussions, and interactions with authors, depiction of scientific ideas through drama & folk dance, and Vigyan Kavi Sammelan
- Aligned to the larger objective of IISF, the Vigyanika will showcase India's rich legacy of promoting science & inculcating scientific temper among the public through multilingual scientific literature, science poetry, science drama and folk art.
- Vigyanika seeks to promote discussions and deliberations on challenges and future roadmap for effective communication of scientific knowledge.

Q: Consider the following statement regarding the unique features of Titanosaurs:

1. They buried their eggs in shallow pits.
2. This behaviour is similar to present day crocodile.
3. They nested in colonies.

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 eggs belonged to six species, suggesting a higher diversity of these extinct giants in India. Further, Titanosaurs buried their eggs in shallow pits, a behaviour seen in modern-day crocodiles.
- They nested in colonies, a feature found in about 13 per cent of modern-day birds. They also laid eggs in sequential order like avian species.
- Parental care was likely absent as the eggs were laid too close to each other. The spacing did not provide room for adults, suggesting that hatchlings were forced to fend for themselves.

Q: Consider the following statement regarding Annual Status of Education Report (ASER) report for 2022:

1. It is nationwide survey to generate the estimates for schooling and basic learning for every State in India.
2. "NIPUN Bharat" is the government's flagship programme designed to translate this policy into practice.
3. In ASER 2022, all-India rural enrolment figure for the age group 6-14 years was 97.2%.

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:

- After a gap of four years, the Annual Status of Education Report (ASER) report for 2022 was recently released in New Delhi.
- This nationwide household survey that covers all rural districts in the country generates estimates for schooling and basic learning for every State in India. Data from 2018 and 2022 can be compared with longer run trends over the last decade to see how the COVID-19 years have impacted India.
- The National Education Policy 2020 gives high priority to the acquisition of foundational literacy and numeracy skills especially for children in early grades.
- "NIPUN Bharat" (where NIPUN is National Initiative for Proficiency in Reading with Understanding and Numeracy) the government's flagship programme designed to translate policy into practice, is beginning to have traction in many States.
- In 2018, the all-India rural enrolment figure for the age group 6-14 years was 97.2%. In ASER 2022 data, this is now 98.4%. The rise has been accompanied by a significant shift away from private schools to government schools.