

Q: Astronomers from the Indian Institute of Astrophysics (IIA) in Bengaluru have developed a new model to trace exo-moons. Consider the following statement:

1. Exo-moons play a crucial role in the habitability of rocky exoplanets in the habitable zone of their host stars.
2. Exoplanets are detected through the photometric transit method.
3. Exo-moons are artificial satellites that revolve around exoplanets.

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:

- Exo-moons are natural satellites that revolve around exoplanets, which itself is orbiting a star, just as planets in our own Solar System revolve around the Sun.
- Astronomers will look for habitable exo-moons as they try to understand new worlds beyond our solar system.
- A large number of exo-moons are expected to be present in the universe, and they may play a crucial role in the habitability of rocky exoplanets in the habitable zone of their host stars.
- While most exoplanets are detected through the photometric transit method, signals from exo-moons are too weak to detect, mainly because of their extremely small size.

Q: Consider the following statement regarding The Great Indian Bustard (GIB):

1. It is considered India's most vulnerable bird.
2. It is a grassland species.
3. Its population is confined mostly to Rajasthan and Gujarat.

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 Great Indian Bustard (GIB), the State bird of Rajasthan, is considered India's most critically endangered bird.
- It is considered the flagship grassland species, representing the health of the grassland ecology.
- Its population is confined mostly to Rajasthan and Gujarat. Small populations occur in Maharashtra, Karnataka and Andhra Pradesh.

Q: Consider the following statement:

1. 'Tilapia' has emerged as an internationally traded food fish in the world.
2. 'Tilapia' is also termed as "aquatic chicken".

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:

- 'Tilapia' has emerged to be one of the most productive and internationally traded food fish in the world.

- The culture of tilapia has become commercially popular in many parts of the world and the fishery experts have dubbed the tilapia as “aquatic chicken” due to its quick growth and low maintenance cultivation.

Q: Great Indian Bustard is given protection against which among the following parameter?

- a) International Union for Conservation of Nature (IUCN) Red List
- b) Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- c) Convention on Migratory Species (CMS)
- d) All the above

Ans: d

Explanation:

Protection Status for Great Indian Bustard:

- International Union for Conservation of Nature Red List: Critically Endangered
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES): Appendix 1
- Convention on Migratory Species (CMS): Appendix I
- Wildlife (Protection) Act, 1972: Schedule 1

Q: Consider the following statement:

1. Pradhan Mantri Matsya Sampada Yojana (PMMSY) was launched to bring ‘Blue Revolution’.
2. The scheme targets to enhance fish production to 20 percent by 2024-25.

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: a

Explanation:

- To promote fishing, the cabinet, came up with ‘Pradhan Mantri Matsya Sampada Yojana (PMMSY)’ to bring about ‘Blue Revolution’ through sustainable and responsible development of fisheries sector in India. The scheme targets to enhance fish production to 220 lakh metric tons by 2024-25, at an average annual growth rate of about 9%.
- The ambitious scheme also aims to double the export earnings to Rs.1,00,000 crore and generate about 55 lakhs direct and indirect employment opportunities in fisheries sector over a period of next five years.