

August 31, 2018

Q.1) Consider the following statements about 'Pacific Ridley turtles'

1. They have a circumtropical distribution, living in tropical and warm waters of the Pacific and Indian Oceans
2. The Coast of Odisha is one of the largest mass nesting site for these turtles

Select the correct statements

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.1) Solution (c)

The olive ridley sea turtle (*Lepidochelys olivacea*), also known as the Pacific ridley sea turtle, are the smallest and most abundant of all sea turtles found in the world; this species of sea turtle is found in warm and tropical waters, primarily in the Pacific and Indian Oceans. They can also be found in the warm waters of the Atlantic Ocean.

The olive ridley turtle has a circumtropical distribution, living in tropical and warm waters of the Pacific and Indian Oceans from India, Arabia, Japan, and Micronesia south to southern Africa, Australia, and New Zealand. In the Atlantic Ocean, it has been observed off the western coast of Africa and the coasts of northern Brazil, Suriname, Guyana, French Guiana, and Venezuela.

The coast of Odisha in India is the largest mass nesting site for the olive ridley, followed by the coasts of Mexico and Costa Rica.

Source: <https://www.thehindu.com/sci-tech/energy-and-environment/300-endangered-turtles-found-dead-on-mexico-beach/article24821102.ece>

Q.2) Consider the following statements about 'ICESat-2'

1. It is part of NASA's Earth Observing System
2. It will measure vegetation canopy height as a basis for estimating large-scale biomass and biomass change

Select the correct statements

- a) 1 Only
- b) 2 Only

August 31, 2018

- c) Both 1 and 2
- d) Neither 1 nor 2

Q.2) Solution (c)

ICESat-2 (Ice, Cloud, and land Elevation Satellite 2), part of NASA's Earth Observing System, is a planned satellite mission for measuring ice sheet elevation and sea ice freeboard, as well as land topography and vegetation characteristics.

ICESat-2 has four science objectives:

- Quantify polar ice-sheet contributions to current and recent sea-level change and the linkages to climate conditions;
- Quantify regional signatures of ice-sheet changes to assess mechanisms driving those change and improve predictive ice sheet models; this includes quantifying the regional evolution of ice sheet change, such as how changes at outlet glacier termini propagate inward;
- Estimate sea-ice thickness to examine ice/ocean/atmosphere exchanges of energy, mass and moisture;
- Measure vegetation canopy height as a basis for estimating large-scale biomass and biomass change

In addition, ICESat-2 will take measurements of the height of oceans, inland water bodies like reservoirs and lakes, cities, and ground movements after events like earthquakes or landslides.

NASA's airborne mission Operation IceBridge is collecting data to bridge the gap between ICESat and ICESat-2.

Source: <https://www.thehindu.com/sci-tech/science/nasa-set-to-launch-space-laser-to-track-earths-melting-ice/article24821872.ece>

Q.3) Consider the following statements

1. The non-attainment cities are those that have fallen short of the National Ambient Air Quality Standards (NAAQS) for over five years.
2. These cities as part of the National Clean Air Campaign (NCAP) need to implement measures aimed at mitigating air pollution.

Select the correct statements

August 31, 2018

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

Q.3) Solution (c)

Non-attainment cities are those cities marked by Central Pollution Control Board that have fallen short of the National Ambient Air Quality Standards (NAAQS) for PM 10 and NO₂ over 5 years. These cities were asked as part of the National Clean Air Campaign (NCAP) to implement measures aimed at mitigating air pollution. The measures include control and mitigation measures related to vehicular emissions, re-suspension of road dust and other fugitive emissions, bio-mass, municipal solid waste burning, and industrial pollution, and construction and demolition activities.

Source: <https://www.thehindu.com/sci-tech/energy-and-environment/indias-most-polluted-30-have-no-clean-up-plan/article24804409.ece>

Q.4) 'Wolbachia' was in news recently. What is it?

- a) It is a genus of Gram-negative bacteria
- b) It is a navigation satellite program being developed by the European Union
- c) It is a drug being developed under the 'Horizon 2020'
- d) It is a new moth species

Q.4) Solution (a)

Wolbachia is a genus of Gram-negative bacteria that infects arthropod species, including a high proportion of insects, but also some nematodes. It is one of the world's most common parasitic microbes and is possibly the most common reproductive parasite in the biosphere. Its interactions with its hosts are often complex, and in some cases have evolved to be mutualistic rather than parasitic.

Source: <https://www.thehindu.com/news/cities/Vijayawada/govt-relies-on-wolbachia-to-control-dengue/article24742129.ece>

Q.5) Which of the following countries does NOT have Adriatic Sea as a boundary?

August 31, 2018

- a) Macedonia
- b) Albania
- c) Montenegro
- d) Croatia

Q.5) Solution (a)

The countries with coasts on the Adriatic are Albania, Bosnia and Herzegovina, Croatia, Italy, Montenegro and Slovenia.

