

GS Test 14 (10th April 2022) (SOLUTION)

76. Correct Answer C

Explanation :

- Seawater level becomes relatively higher in areas of low evaporation and higher rainfall because of lower salinity and hence lesser density. Thus ocean current is generated from areas of high water level to lower water level. **So, point 1 is correct.**
- Planetary winds affect the ocean current. The wind blowing on the water surface also moves the water in the direction of prevailing winds. **So, point 2 is correct.**
- The disposition of coastal lines perpendicular to the natural flow direction of ocean currents obstructs them with the result of the ocean currents starting flowing parallel to the coastline. **So, point 3 is correct.**
- **The rotation of the earth, not the revolution, affects the ocean currents.** The rotation of the earth on its axis from west to east results in the genesis of deflective force or Coriolis force. This reflects the current in the northern hemisphere to its right and the current in the southern hemisphere to its left. The rotational force causes the movement of water in the opposite direction of earth movements known as Equatorial current. **So, point 4 is not correct.**
- The submarine ridges usually deflect the course of currents. Generally, the ocean currents while crossing over a submarine ridge are deflected to the right in the northern hemisphere and to the left in the southern hemisphere. **So, point 5 is correct.**

Therefore, option (c) is the correct answer.

77. Correct Answer D

Explanation :

- Pearls are the only gemstones in the world that come from a living creature. Mollusks such as oysters and mussels produce these precious jewels. In saltwater, pearls are found in oysters, while in freshwater they are produced by mussels. **So, statement 1 is correct.**
- Marine pearls are produced from the species distributed in the Gulf of Mannar, Palk Bay, southern Kerala and Gulf of Kutch and the black lip pearl oyster, in the Andaman and Nicobar Islands. Technology for marine pearl production was developed by the CMFRI. Based on these developments, many large-scale commercial ventures and societal programmes were initiated near natural pearl oyster beds, particularly in Tamil Nadu and Kerala. However, due to several logistic reasons (primarily long duration of culture and risks of sea-based farming), these ventures could not sustain. Currently, there is no commercial production of cultured marine pearls in the country as reported by the ICAR-CMFRI. **So, statement 2 is correct.**
- The ICAR-Central Institute of Freshwater Aquaculture (ICAR-CIFA), Bhubaneswar has developed the technology of growing pearls in freshwater. In India, the commercial production of freshwater pearls is very meager. Based on a survey conducted by ICAR-CIFA, it is found that most of the states having freshwater bodies are suitable for freshwater pearl farming. For example West Bengal, Bihar, Odisha, Karnataka, Gujarat, Rajasthan, Maharashtra, Punjab, Madhya Pradesh, Chhattisgarh, and the North Eastern States.
- The time taken for a pearl to develop depends on a variety of factors. Generally, freshwater types form a lot faster than saltwater ones. **So, statement 3 is correct.**

Therefore, option (d) is the correct answer.

Relevance: Tribal Co-operative Marketing Development Federation of India (TRIFED) recently signed an agreement with Jharkhand-based Purty Agrotech for the promotion of pearl farming in tribal areas.