

Advanced Oceanographic Milestones

Oceanography · Answer Key · 8 Questions

1. In what year did the HMS Challenger expedition complete its historic four-year voyage, effectively founding modern oceanography?

- A) 1872
- B) 1876**
- C) 1880
- D) 1884

2. The Challenger Deep, the deepest surveyed point in the Earth's oceans, is located within the Mariana Trench at approximately what maximum depth?

- A) 9,440 meters
- B) 10,935 meters**
- C) 11,520 meters
- D) 12,100 meters

3. Which scientist is credited with publishing the 'General Theory of the Tides' in 1775, providing the first mathematical analysis of tidal movements?

- A) Pierre-Simon Laplace**
- B) Matthew Fontaine Maury
- C) William Whewell
- D) Isaac Newton

4. The Antarctic Circumpolar Current (ACC) is the only current that flows completely around the globe; approximately how many million cubic meters of water per second (Sverdrups) does it transport?

- A) 50-70
- B) 100-150**
- C) 200-250
- D) 300-350

5. In 1960, the bathyscaphe Trieste reached the bottom of the Challenger Deep; who were the two individuals aboard during this record-breaking dive?

- A) Jacques Piccard and Don Walsh**
- B) Sylvia Earle and James Cameron
- C) Robert Ballard and David Gallo
- D) William Beebe and Otis Barton

6. Approximately what percentage of the total volume of the Earth's hydrosphere is contained within the World Ocean?

- A) 72.5%
- B) 84.2%
- C) 96.5%**
- D) 99.1%

7. The 'Great Ocean Conveyor Belt' (thermohaline circulation) is estimated to take approximately how many years for a single parcel of water to complete a full global cycle?

- A) 100-200 years
- B) 500-800 years
- C) 1,000-1,500 years**
- D) 2,500-3,000 years

8. Who was the lead scientist aboard the USS Glomar Challenger in 1968 who provided definitive evidence for seafloor spreading through Deep Sea Drilling Project (DSDP) Leg 1?

- A) Harry Hess
- B) Maurice Ewing**
- C) Walter Pitman
- D) Drummond Matthews