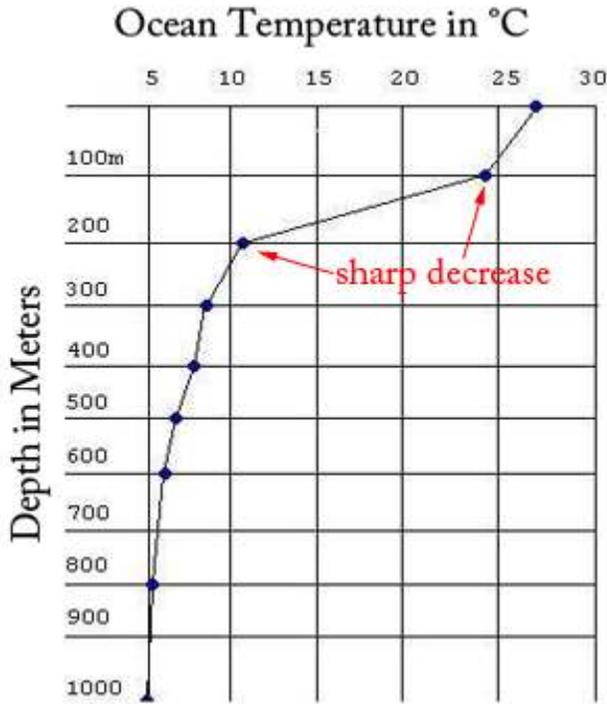


2014-15 MVHS Dynamic Planet Try-Out Test

Be aware that actual tests in this event will likely be much different than this try-out test.

Point values are given in parentheses after each question. Tiebreak points added for especially in-depth answers, deducted for spelling errors, etc.



The following problems are based on the graph to the left:

1. Which one of the following reasons best explains the trend in this graph? (2)
 - a. Deeper water is closer to the core.
 - b. Less sunlight reaches the deeper water.
 - c. The weather changed and it takes longer for the deeper water to warm.
 - d. The data is not reliable.
2. Where could the data have been taken with highest probability? (3)
 - a. In the Humboldt Current
 - b. In the Baltic Sea
 - c. Near the Cape Verde Islands
 - d. Near the Bering Strait
3. The “sharp decrease” shown on the graph to the left is known as the _____. (5)

Matching (1 point each, all answers only used once):

- | | |
|-------------------------|---|
| 4. ___ Coriolis Effect | a. Caused when sun and moon make right angle with earth |
| 5. ___ Pycnocline | b. Ring-shaped coral reef |
| 6. ___ Spring tide | c. Three types: Terrigenous, Biogenous, Hydrogenous |
| 7. ___ Neap tide | d. Deflection caused by rotation of earth |
| 8. ___ Gulf Stream | e. A warm current responsible for cyclone formation |
| 9. ___ Humboldt Current | f. Most level place on earth |
| 10. ___ Atoll | g. Where two Hadley cells converge |
| 11. ___ Abyssal plain | h. Vertical salinity gradient |
| 12. ___ Aphotic zone | i. Caused when the sun, moon, and earth align |
| 13. ___ Halocline | j. Flat-topped, submerged seamount |
| 14. ___ Marianas Trench | k. Part of a body of water where no light reaches |
| 15. ___ Sediment | l. Layer where density gradient is greatest in a body of water |
| 16. ___ Guyot | m. Pressure here is over 1000 atmospheres |
| 17. ___ Tombolo | n. A bridge of sediment that connects an island to the mainland |
| 18. ___ Doldrums | o. Causes a different climate than would otherwise expected in Peru |

Name: _____

Score/Tiebreak: _____ / _____

Place/Total: _____ / _____

Multiple Choice (2 points each):

19. The "SO" in ENSO stands for...
- a. Saline Oasis
 - b. Storm Ocean
 - c. Surface Oceanography
 - d. Southern Oscillation
20. What does the El Niño cause?
- a. Warmer Pacific, fewer Atlantic hurricanes
 - b. Warmer Pacific, more Atlantic hurricanes
 - c. Cooler Pacific, fewer Atlantic hurricanes
 - d. Cooler Pacific, more Atlantic hurricanes
21. As a wave approaches shore, its wavelength normally...
- a. Increases
 - b. Stays the same
 - c. Decreases
 - d. Changes depending on the specific wave
22. What are turbidity currents named for?
- a. Their high turbulence
 - b. Their slow speed
 - c. The large randomness of their flow
 - d. Their high sediment content
23. Diurnal tides include ___ every day.
- a. Two high tides and two low tides
 - b. One high tide and one low tide
 - c. A varying number of tides
 - d. More high tides than low tides
24. The primary long term effect of wave refraction is...
- a. Straightening of the coastline
 - b. Occurrences of freak waves
 - c. Bending of waves
 - d. Creation of new ocean currents
25. Surface currents create circular swirls called...
- a. Gyres
 - b. Dynamos
 - c. Whirlpools
 - d. Maelstroms
26. Divergent plate boundaries are associated with...
- a. Trenches
 - b. Mid-ocean ridges
 - c. Subduction zones
 - d. Old oceanic or continental crust
27. What are the smallest wind-generated waves called?
- a. Ripples
 - b. Hundred-year waves
 - c. Capillary waves
 - d. Micro-waves
28. Water in small basins sloshing at resonant frequencies...
- a. Is a cusped spit
 - b. Is a sea arch
 - c. Is a seismic sea wave
 - d. Is a seiche

Short Response:

29. What are the five Oceans? (1 point each, any order)
- (a) _____
 - (b) _____
 - (c) _____
 - (d) _____
 - (e) _____
30. (a) What rock makes up most of the crust formed at a mid-ocean ridge? (3) _____
(b) What type of rock (i.e. sedimentary) is this? (2) _____
31. Identify the sections of the continental margin. (2 points each)
- (a) Flooded extension of continent that slopes gently towards ocean basin: _____
 - (b) Seaward edge of previous part, steep gradient into deep water: _____
 - (c) Accumulation of sediment at base of the previous part, occurs when there is no trench: _____
32. How does life on the ocean basin get energy? (3 points per unique, correct answer)
- (a) _____
 - (b) _____
33. The Galapagos are largely diverse due to what in the ocean nearby? (2) _____
34. What is the topic of this year's Dynamic Planet test? (1) _____