Marine Biology

Señor Robles

**Oceanography Quiz**

*An open-note-take-at-home quiz*

Directions: Make sure your responses are in a different color and email me your finished quiz.

1. The “Sunlight zone” of the ocean is scientifically known as the…

a. Abyssopelagic b. Mesopelagic c. Bathypelagic d. Epipelagic

2. In the lower zones of the ocean, where there is no sunlight to drive photosynthesis, what is the main and constant source/input of energy?

a. Dead whales b. Marine snow c. Thermal vents d. Bioluminescence

3. At what depth does photosynthesis stop because the majority of sunlight cannot penetrate the water?

a. 200m b. 1,000m c. 500m d. 2,000m

4. Which marine mammal has the all-time recorded deepest dive (over 9,000 feet deep)?

a. bottlenose dolphin b. sperm whale c. blue whale d. Cuvier’s beaked whale

5. Piezolytes are organic molecules that help deep-sea fish withstand enormous pressure. What effect do

they have on the salinity of the fish’s cells?

a. They make the cells saltier b. They make the cells less salty

c. They have no effect on the salinity of the cell and this is a trick question.

6. The ocean has two major types of currents: Surface currents and deep ocean currents. What % of the

ocean’s water is controlled by the surface currents?

a. 90% b. 60% c. 50% d. 20% e. 10%

7. What is the world’s largest ocean current?

a. The northern equatorial current b. The global conveyor belt

c. The Gulf Stream d. The Pacific Ginormous current

8. If sea level lowers and the peak of a seamount is exposed, and then slowly leveled by erosion, and then

sea level rises so that the seamount is now a subsea plateau, it is now known as a…

a. seamount b. mesa c. butte d. guyot

9. For every km you dive underwater, how much greater is the water pressure?

a. 10x b. 100x c. 1,000x d. 10,000x

10. Many fish in the abyssopelagic zone have the adaptation of “bars of a cage” teeth to prevent the loss

of any prey they’re lucky enough to catch. Which fish does NOT have this trait?

a. anglerfish b. viperfish c. fangtooth d. tripod fish

11. What type of rock is the oceanic crust composed of?

a. basalt b. volcanic ash c. granite d. sandstone

12. Which geologic force is responsible for creating undersea trenches?

a. volcanic eruptions b. subduction of crustal plates c. earthquakes d. deformation of plates

13. In 1992 a cargo ship encountered a storm in the North Pacific. One of the containers broke open, and

2,800 of these were released into the water. Surprisingly they helped oceanographers learn a lot about

the movement and speed of ocean currents. What were these objects?

a. hair brushes b. plastic bottles c. rubber duckies d. toy boats

14. Black smokers resemble underwater volcanos as they spew clouds of hot black water. But they drive

this unusual biologic process:

a. photosynthesis b. chemosynthesis c. volcanism d. oceanic respiration

15. What do you call the massive circular movements of water that spiral in opposite directions above and

below the equator?

a. whirl pools b. gyres c. doldrums d. currents

16. As you move towards the poles, seawater becomes:

a. saltier b. less salty c. the same, it does not change salinity

d. saltier towards the North pole but less salty towards the South pole.

17. What internal structure (think of the perch dissection) would you NOT find in an abyssopelagic fish?

a. liver b. stomach c. gas bladder d. spleen

18. The Maelstrom Saltstraumen has the reputation of being the world’s…

a. deepest oceanic trench b. fastest current c. coldest deep sea current d. ugliest abyssal fish

19. Where do thermohaline currents begin?

a. At the equator b. In the polar regions c. At the trenches d. Near volcanos

20. What part of the seafloor is mostly within the epipelagic zone?

a. The abyssal plains b. The continental crust c. Seafloor spread d. continental shelf