

Dynamic Planet Division B - Macomb County Workshop Test - January 16, 2021

1. (1.00 pts) Surface currents create circular swirls called...

- A) Gyres
- B) Dynamos
- C) Whirlpools
- D) Maelstroms

2. (1.00 pts) In the open ocean, average seawater salinity is...

- A) 0.0035 ppt
- B) 0.035 ppt
- C) 0.35 ppt
- D) 3.5 ppt
- E) 35 ppt
- F) None of the above

3. (1.00 pts) Which of the following INCREASES the salinity of seawater?

- A) Runoff entering the ocean
- B) Precipitation into the ocean
- C) Icebergs melting in the ocean
- D) Evaporation of sea water
- E) The first two choices only

4. (1.00 pts) 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

5. (1.00 pts) At constant temperature, as the salinity of seawater increases, density _____?

- A) increases
- B) decreases
- C) remains the same

6. (1.00 pts) As the depth of seawater increases, temperature _____?

- A) increases

- B) decreases
- C) remains the same

7. (1.00 pts) As depth of seawater increases, salinity _____?

- A) increases
- B) decreases
- C) remains the same

8. (1.00 pts) As water cools from 20° C to 4° C, its density _____?

- A) increases
- B) decreases
- C) remains the same

9. (1.00 pts) As water cools from 4° C to 0° C, its density _____?

- A) increases
- B) decreases
- C) remains the same

10. (1.00 pts) As a block of sea ice melts its temperature _____?

- A) increases
- B) decreases
- C) remains the same

11. (1.00 pts) What does 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

12. (1.00 pts) As waves approach shores, its wavelength normally...

- A) Increases
- B) Remains the same
- C) Decreases
- D) Changes depending on the specific wave

13. (1.00 pts) Halite, anhydrite, and gypsum are examples of _____ sediment?

evaporite

14. (1.00 pts) _____ are an example of a microscopic, photosynthetic, silica-secreting organism.

Diatoms

15. (1.00 pts) What is the average depth of the calcite compensation depth (CCD) in the ocean?

Expected Answer: 4500 meters

16. (1.00 pts) What drives currents in the deep ocean?

Expected Answer: Density differences

17. (1.00 pts) What is the density driven, deep water circulation of the oceans called?

Expected Answer: thermohaline circulation

18. (1.00 pts) This process rapidly transports large amount of sediment from the shelf to the sea floor?

Expected Answer: Turbidity current

19. (1.00 pts) What is it called when deep water is pulled to the surface by offshore winds?

Expected Answer: Upwelling

20. (1.00 pts) What is the part of the water column that is devoid of light?

Expected Answer: Aphotic Zone

