Unit 2, Semester 2 Test Review

Answer all questions to the best of your ability, using the lessons and notes from class. It is suggested that you print out this review so you can use it to help you get an A+ on your test! The review session will be held Thursday 02/26/15 at 1pm.

*Turn into the Unit 1 Extra Credit Dropbox before 1PM on 2/26 for 3 points extra Credit or after for 1 point!

1. Match the vocab term to the definition:

a. Thermohaline circulation	i. The boundary between two different densities of water.
b. Density	ii. Elevation or height of the land.
c. Salinity	iii. Due to the rotation of the Earth, wind and water move to the right in the Northern Hemsiphere.
d. Latitude	iv. Water and currents move parallel (same direction) as shore
e. Altitude	v. The stretch or distance of area wind blows over.
f. Longshore Current	vi. Water currents are driven by differences in density + heat.
g. Coriolis Effect	vii. How far north or south a location is of the equator.
h. Fetch	viii. The amount of mass in a given volume.
i. Pycnocline	ix. How salty water is.

2. As latitude increases, what happens to temperature?
   a. It increases
   b. It decreases
   c. There is no relationship between latitude and temperature
   d. Temperature goes up and down repeatedly like a roller coaster.

3. Define salinity.

4. What is the difference between water with a HIGH salinity and water with a LOW salinity?

5. Which has a higher salinity? OCEAN water (example: Atlantic Ocean) or FRESH water (example: Lake Michigan)?

6. CIRCLE ONE: Warmer sea-surface temperatures have (HIGHER/LOWER) salinity?

7. As you go deeper into the ocean, what happens to TEMPERATURE and SALINITY?
   Temperature _____(Increases or decreases?)
   Salinity _____(Increases or decreases?)

8. Which describes how waves develop?

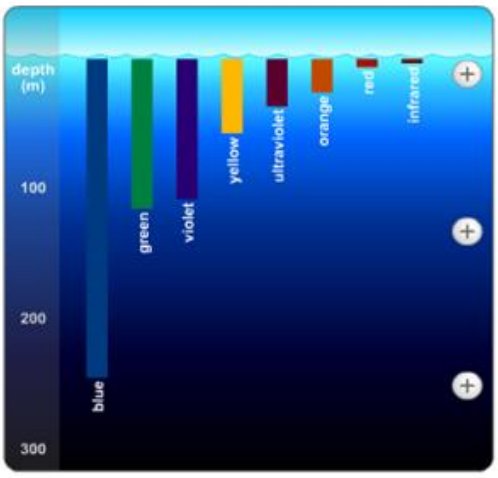
    a. Friction between the moving air and the underlying water imparts energy, which causes the water to move in a circular motion, but the energy moves great distances. Wind blows water along in one direction, thereby causing it to move great distances.
    b. The air mixes with the water to produce a wave.Water Vapor
    c. Friction between the moving air and the underlying water imparts energy, which causes the water to move horizontally great distances.

9. In order to create the largest wave possible, you would want: (circle 3!)
    a. High Fetch
    b. Low Fetch
    c. Strong Winds
    d. Weak Winds
    e. Short Duration Winds
    f. Long Duration Winds

10. Countries in Northern Europe currently receive warm, wet weather from the ocean currents in the Atlantic ocean. What would happen to countries in Northern Europe's climate if this ocean current stopped coming to the region?
    a. Temperature would…. (INCREASE/DECREASE)
    b. Iceland would become (DRIER/MORE WET)

11. Define COASTAL UPWELLING.

12. In the picture below, we can see which colors are visible at different depths in the ocean.



    a. A diver at 100 m can see what colors?

    b. If you were diving at 200 m, which colors would you be able to see?

13. What is Thermohaline Circulation?

14. What causes the thermohaline circulation to take place?
    a. Density differences
    b. Gravity
    c. pH
    d. Fish
    e. Wind

15. Which of the following factors lead to current development at **50 meters deep?** Circle all that lead to currents at 50 meters depth.
    a. Wind
    b. Friction
    c. Temperature differences
    d. Salinity
    e. Coriolis Effect
    f. Gravity
    g. Seashells

16. Sally the science student says that beach shores never change. She says that the shoreline is always the same shape. Is she right or wrong? If she is wrong, make sure you say what agent is responsible for changing the shoreline.

17. Longshore currents are responsible for moving _____ on beach shores.
    a. Beach balls
    b. Sand and sediment
    c. Nothing at all

18. Methane is a gas that is found in the sea as well as our atmosphere. How is it introduced into the sea? Describe the process.