

Name: _____ Period: _____ Date: _____

Ms. Randall Marine Science

Unit 4 Physical Oceanography Exam Study Guide

1. Draw and label a wave with the following components: crest, trough, wave height, wave length.
2. Explain how a breaker changes as it gets closer to shore.
3. Which type of waves are earthquake generated?
4. Describe the steps to form a tsunami and travel to shore.
5. How are tides generated?
6. What has the greatest influence on our tides?
7. A) Which tides have one high tide and one low tide each day.
B) Which tides have two high tides and two low tides each day.
8. A) Which tides occur when the Sun, Moon, and the Earth are all aligned.
9. B) Which tides occur when the Sun, Moon, and the Earth create a right angle.
10. When are the tides at their greatest range (biggest bulge)?
11. What is a wave produced by the incoming tides bringing ocean water into a narrow bay or river?
12. What are the two major types of currents in the ocean?
13. A) Which type of current is driven by wind circulation?
B) Which type of current is driven by thermohaline circulation?
14. What is a large circular flow of ocean water, or current located in each ocean basin?
15. What is the effect of Earth's rotation (the apparent deflection) on moving objects?
16. A) In the northern hemisphere, objects move in a _____ motion.
B) In the southern hemisphere, objects move in a _____ motion.
17. Which type of surface current would push you parallel down the beach, and cause beach sand erosion?
18. Which type of surface current occurs perpendicular to shore and can be dangerous to swimmers?
19. Which type of surface current is best for coastal ecosystems by bringing cold, nutrient rich water from the deep up to shore?
20. _____ temp + _____ salinity = greater density
21. What is the thermohaline circulation?