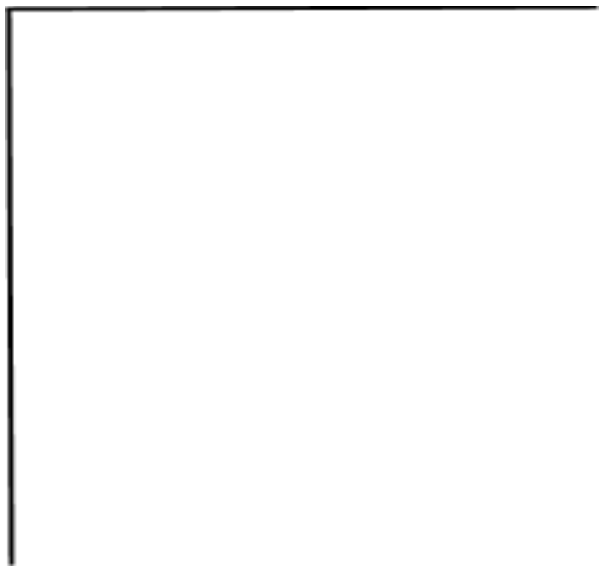
Name: _____ Score _____/80

DYNAMIC PLANET: OCEANOGRAPHY

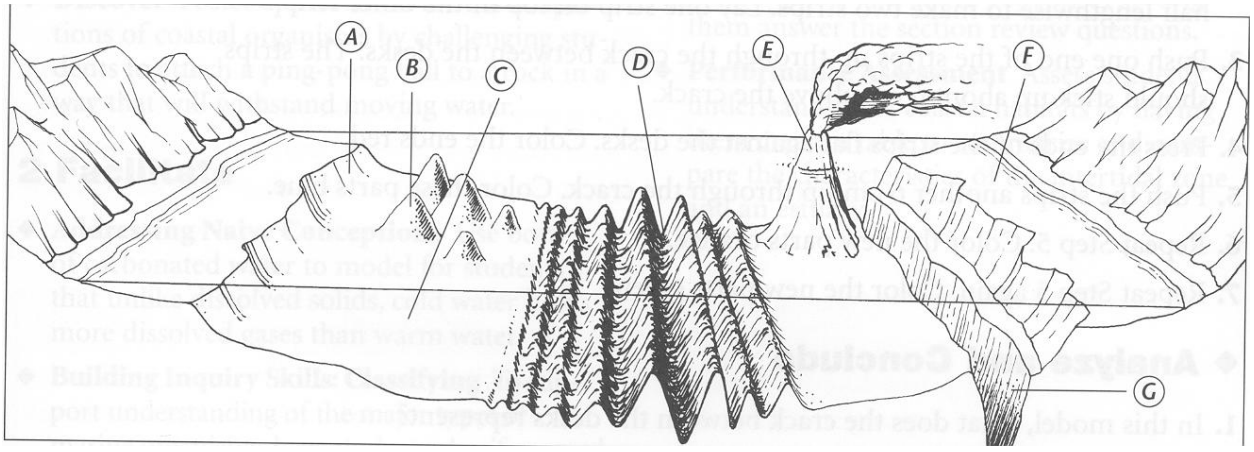
Practice Test 1 By CHS

1) Given the water temperature at various depths of the sea, construct a graph and identify the three-layers of seawater.

Depth (m)	Temperature (°C)
0	24
500	20
1000	7
1500	5
2000	4.5
2500	4.2
3000	4
3500	3.9
4000	3.5



2) Label the letters of the following diagram with the name of the corresponding structure.



A:

B:

C:

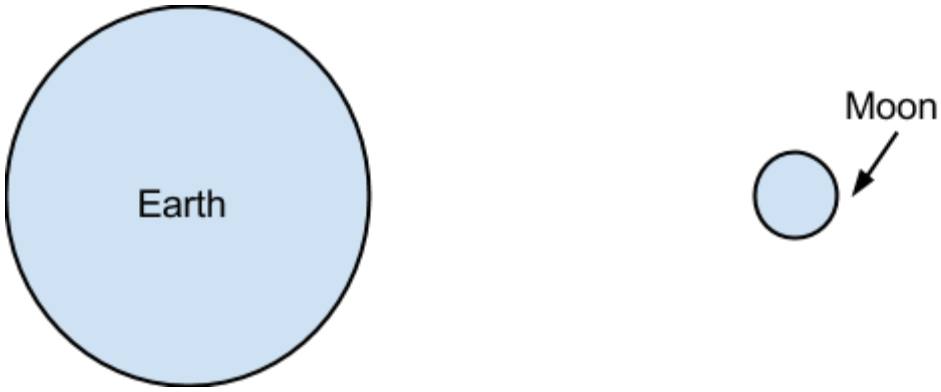
D:

E:

F:

G:

3) Label on diagram where high and low tides would be located.

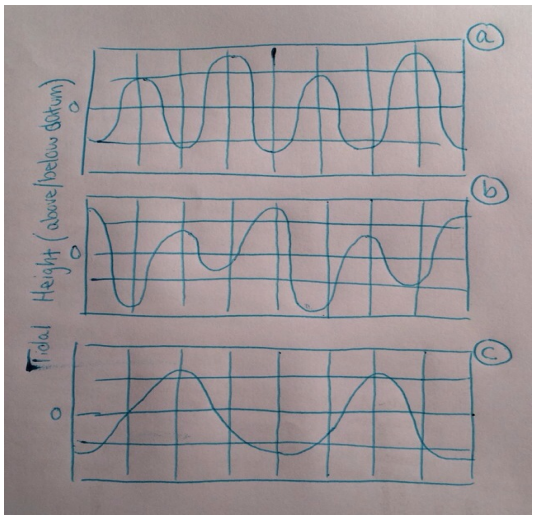


4) Where are two places coral reefs are most likely to form?

5) Explain the processes that drive the Thermohaline Circulation.

6) How can scientists observe what the surface of the ocean floor looks like when it is so deep?

7) How can one distinguish diurnal, semidiurnal, and mixed tides? In addition, match each tide to its respective tide diagram.



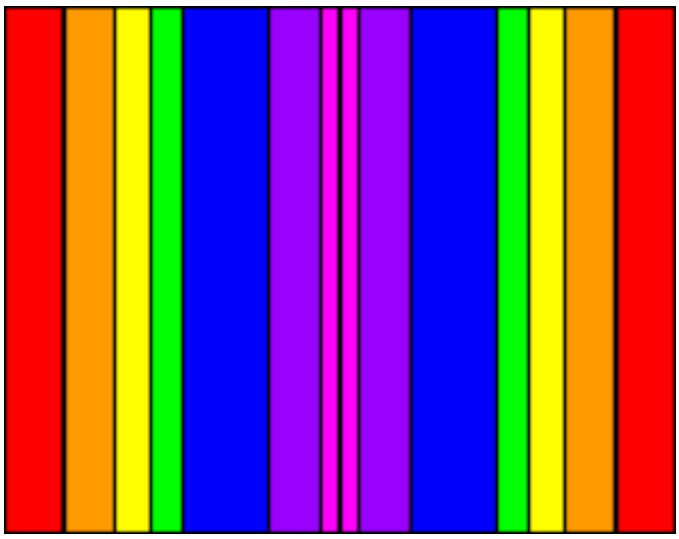
8) What are two ways scientists can determine the age of coral reefs?

9) Which of the following are ways to calculate salinity? (more than one answer is possible)
   a) titration
   b) electrical conductivity tests
   c) evaporation
   d) salinometer
   e) refractometer
   f) TDS meter

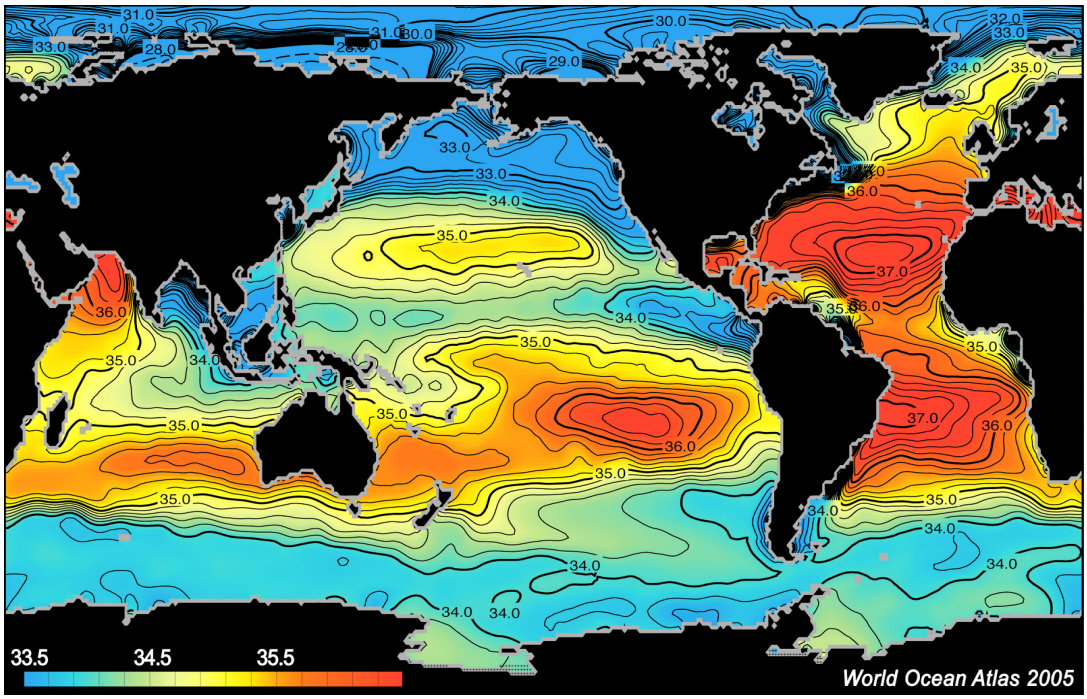
10) Evidence used by Alfred Wegener to support his hypothesis of continental drift included all the following EXCEPT:
    a) Matching coastlines of continents now separated by oceans.
    b) Evidence of glaciers in areas that are now tropical.
    c) The composition of meteors from outer space.
    d) The diversity of species of fossils, especially those of dinosaurs and mammals.
    e) The pattern of similar mountain belts on different continents.
11) Compared to continental crust, oceanic crust tends to be
    a) Older, thinner, and more dense.
    b) Older, thicker, and more dense
    c) Older, thinner, and less dense.
    d) Younger, thicker, and less dense.
    e) Younger, thicker, and more dense
    f) Younger, thinner, and more dense.
12) The majority of the world's earthquakes are found along _____ plate boundaries.
    a) Divergent
    b) Convergent
    c) Transform
    d) All of the above
    e) None of the above
13) Draw below the positionings of the Sun, Moon, and Earth that cause spring tides (more than one answer, need to draw all):

14) Where do marine sediments originate ? List four or more origins for full credit.

15) Which color represents the oldest strip of sea floor? The youngest? What can you say about the polarities of the sediments colored blue and yellow? Around which ocean floor feature would you find strips like these? (not rainbow-color strips though, duh)



16) Describe the salinity of the red regions. What factors might account for this? What are the implications?



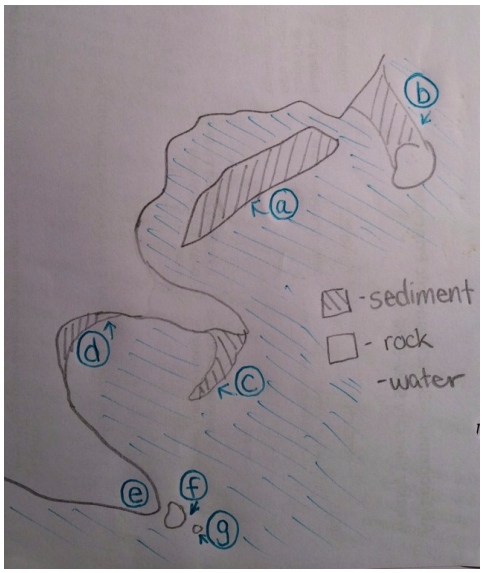
17) What type of current is shown in the photograph below? What causes such currents to form?

18) How does the Coriolis Effect vary with latitude?

19) What are hurricanes' sources of energy?

20) What is thought to be the main driving force behind the theory of plate tectonics?

21) Identify the coastal features on the diagram to the right, then draw on the diagram the direction in which the longshore flows.



a:

b:

c:

d:

e:

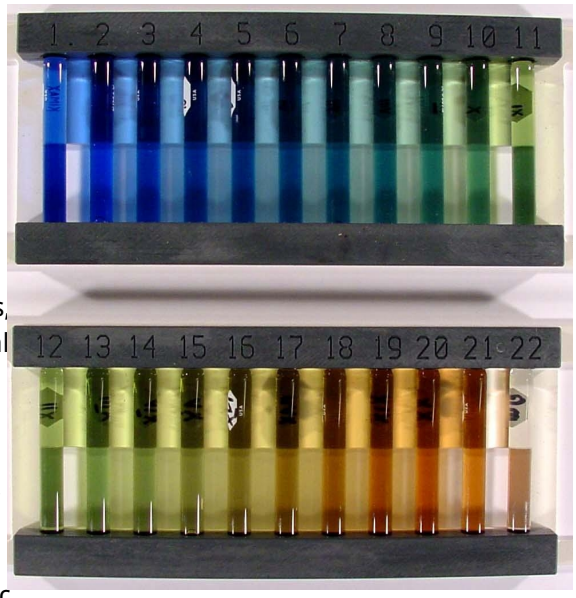
f:

g:

22) Fill in the blanks: _____ waves are nearly friction-free wave-form energy capable of traveling great distances within the _____ zone of the ocean. Most of them form when _____ transfers _____ into the water.

23) The Forel-Ule Scale was a scale developed in the 19th century to "measure" the color of water. Match the FU numbers to the type of water it mainly describes.

a. 1-5 FU scale
b. 6-9 FU scale
c. 10-13 FU scale
d. 14-17 FU scale
e. 18-22 FU scale



___ Usually with high nutrient and phytoplankton concentrations, but also increased sediment and dissolved organic matter; typical for near-shore areas and tidal flats.

___ These waters have often low nutrient levels and low production of biomass; colour dominated by microscopic algae

___ Waters with an extremely high concentration of humic acids, which are typical for rivers and estuaries.

___ Often coastal waters displaying increased nutrient and phytoplankton levels; also contain minerals and dissolved organic material.

___ The colour is dominated by phytoplankton, but also increased dissolved matter and some sediment may be present; typical for areas towards the open sea.