Currents Subject Review

l.	The of currents includes speed and direction components.
2.	Three factors that drive ocean currents are
3.	When a coastal tidal current it moves toward the land and away from the sea. When a
	coastal tidal current it moves toward the sea away from the land.
1.	As a coastal tidal current moves from ebbing to flooding (and vice versa), there is a period during
	which there is no current velocity. This period is called
5.	Tidal currents are most strongly influenced by motions of the
3.	When the moon is at full or new phases, the tidal current velocities are and are called
	When the moon is at first or third quarter phases, tidal current velocities are
	and are called
7.	" currents" occur when the moon and Earth are closest to each other. "
	currents occur when the moon and Earth are farthest from each other.
3.	Wave height is affected by wind, wind, and
9.	Breaking waves are caused by
10.	When a wave reaches a beach or coastline, it releases a burst of energy that generates a current,
	which runs parallel to the shoreline. This type of current is called a
11.	Water flowing in a longshore current can transport beach sediment and cause significant beach
	erosion through a process known as
12.	A localized current that flows toward the ocean, perpendicular or nearly perpendicular to the shoreline
	is called a
13.	Swimmers caught in a rip current can escape by
14.	A long offshore deposit of sand situated parallel to the coast is called a
15.	occurs when winds blowing across the ocean's surface push water away from an area,
	causing subsurface water to come up from beneath the surface to replace the diverging surface
	water. Areas where this occurs are often good for, because
16.	Earth's rotation causes air circulating in the atmosphere to deflect toward the right in the Northern
	Hemisphere and toward the left in the Southern Hemisphere. This deflection is called
17.	Between 5 degrees North latitude and about 25 degrees North latitude, surface winds generally blow
	from the northeast to the southwest, and are known as the
18.	Between 5 degrees North and 5 degrees South latitude, where the winds are generally sporadic and
	have little or no velocity. This region is called
19.	Between about 35 degrees North latitude and about 55 degrees North latitude, surface winds
	generally blow from the west, and are known as
20.	Global winds drag on the ocean's surface, causing the water to move in the direction that the wind is
	blowing and thus create surface ocean currents. Deflection of these currents by Earth's rotation
	produces spiral currents called
21.	Each of the major ocean-wide gyres is flanked by a strong and narrow "western boundary current,"
	and a weak and broad "eastern boundary current." The western boundary current of the North

	Atlantic gyre is called, and the eastern boundary current of this gyre is known as
22.	When surface water molecules move by the force of the wind, friction with water molecules below them causes movement of deeper water layers. Deeper layers move more slowly than shallower layers, however, and all layers are deflected by Earth's rotation (to the right in the Northern Hemisphere and to the left in the Southern Hemisphere). These forces create a spiral effect called
23.	Deep-ocean currents below 100 meters are driven by, in a process known as
24.	The global-scale system of deep-ocean currents is sometimes called the
25.	Global ocean circulation resulting from deep-ocean currents is vital to the world's food chain because
26.	Global ocean circulation resulting from deep-ocean currents could be disrupted by global warming if
27.	Ocean and coastal current velocities are typically are measured in, which is equal to
	aboutstandard (or "statute") miles per hour or about kilometers per hour.
28.	Current measurements made with drifters are termed " measurements," while
	measurements of the speed and direction of a fluid at a single point are termed "
	measurements."