Energy sources & sediment cells / budgets *3.1.3.2*

Q1	***True or False?***	
A	A longer fetch creates destructive waves.	
B	Constructive waves are higher frequency than destructive waves.	
C	Coriolis Force deflects winds counter-clockwise in the northern hemisphere.	
D	The moon and sun at right angles to the earth create a spring tide.	
E	Surface ocean currents move faster than deep ocean currents.	

Q2	**Match the correct term to the correct process description**	
A	How the Earth's rotation affects the direction in which winds travel across the earth.	
B	The movement of warm water away from the equator and cold water from the poles.	
C	The maximum length of open water over which the wind can blow.	
D	The process by which material is shifted laterally along the coast at an oblique angle.	
E	The movement of water up to the surface of the ocean.	
Select from: **Fetch** **Coriolis force** **Global conveyor belt** **Upwelling** **Littoral drift**		

Q3	**One sentence is incorrect in each of the explanations below. Identify the wrong one.**
A	Destructive waves are created when a large fetch occurs. The wind blows over the water for a long distance and creates low energy waves with a long wavelength. When these waves reach the coastline, they break onto the beach and scour away material.
B	Coriolis force deflects winds in a certain direction. In the northern hemisphere winds are shifted clockwise. This movement in the northern hemisphere decreases erosion rates at eastern coasts such as the Holderness coast.
C	The gravitational pull of the moon and sun creates tides in the oceans. There are two tides a day – a high tide and a low tide. When the sun, moon and earth are in alignment we also get spring tides which are higher than usual and this is as a result of increased gravitational pull.
D	A sediment cell is an area around a coastline where the movement of material is self-contained. It occurs as a result of the topography of the land controlling the key processes within the cell. Where the coastline is straight, material will be restricted from moving along into a nearby cell or prevented from moving offshore.
E	A sediment budget is the amount of energy going into a sediment cell. Various factors will affect the budget, including changes in sediment load in a river as well as human intervention, such as dredging material out of a river to prevent flooding.

Energy sources & sediment cells / budgets *3.1.3.2*

Q4	***Decide which heading the various factors would match with, in regards to a dynamic (changing) net sediment budget.***
Positive sediment budget	***Negative sediment budget***

Rockfall in an upland area

Dam built along a river's course

Dredging a river

Creation of a sea wall

Creation of a groynes

Sea level rise

Building of a coastal port

Deforestation along the coast

Creation of a campsite along the top of a cliff

Q5	***Think about the implication of global sea level rise on coastal energy sources and sediment cells/budgets.***
A	What are some of the negative implications?
B	What are some of the positive implications?