Plate tectonics: theory, types of margin & associated features *3.1.5.2*

Q1	***True or False?***	
A	Convection currents in the mantle are caused by radioactive decay in the earth's core producing heat.	
B	Young fold mountains are found on constructive plate margins.	
C	Seismic activity is common along destructive plate margins.	
D	Sea floor spreading occurs at conservative plate margins.	
E	Palaeomagnetism is used to determine historical crustal movements due to magnetism of metals in rocks.	

Q2	**Match the correct term to the correct definition**	
A	The occurrence or frequency of earthquakes in an area.	
B	A branch of science studying volcanic action.	
C	The edge of each tectonic plate.	
D	A segment of the Earth's crust.	
E	The transfer of heat through an region of the earth's interior.	
Select from**:** **Tectonic plate** **Convection current** **Seismicity** **Vulcanicity** **Plate margin**		

Q3	**One sentence is incorrect in each of the explanations below. Identify the wrong one.**
A	The core releases heat which rises through the mantle. As the heat reaches the crust it slows, heats up and then falls back down into the mantle. This process causes plates to move.
B	A collision margin is where two oceanic plates move together. Neither plate can be subducted, so they collide and push up sediments to form fold mountains. These mountains are some of the highest in the world. The Himalayas are an example of a fold mountain range.
C	A conservative margin is when two plates move alongside each other. Neither plate is subducted and therefore there is no volcanic activity associated with this margin. Deep focus earthquakes occur here which are gentle and result in few impacts.
D	A rift valley occurs at a continental divergent/constructive plate boundary whereby the plates move apart and the subsequent land in the middle of the two plates subsides. The valley experiences no volcanic activity due to the lack of material being fed into the area and the fact that no crust is being destroyed at this point. The African rift valley is one of the earth's largest.
E	Composite volcanoes are formed at constructive margins where plates move apart. Magma fills the gap left by the plate separation and non-viscous lava flows over the surface and eventually solidifies to form a wide, shallow sloped volcano. The magma is basaltic in origin and largely fluid.

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Q4	***Decide which heading the various features & processes would match with, in reference to plate margin type***	
Constructive margin	***Destructive margin***	***Conservative margin***

Shield volcano

Young fold mountains

Cone volcano

Low magnitude earthquakes are common

Ocean ridges

Deep sea trenches

Subduction

Deep earthquake foci

High seismicity but little volcanicity

Q5	***Think about the implications for people living in areas associated with tectonic activity.***
A	What are some of the future negative implications?
B	What are some of the future positive implications?