Lecture 10 – Tectonics II

1. There is no loss or gain of crust in _____ setting.
    a) a divergent plate boundary
    b) a back arc basin
    c) a transform boundary
    d) a continental – oceanic plate boundary
    e) a decompression melting

2. At divergent plate boundaries one will find:
    a) thinned crust
    b) decompression melting
    c) mantle derived magma
    d) normal faults
    e) all of the above

3. Which of the following is consistent with a continental – continental plate collision?
    a) significant volcanic activity
    b) crustal thickening
    c) crustal thinning
    d) abundant normal faulting
    e) none of the above

4. The Mariana Trench, the deepest point on Earth's surface, is due to:
    a) oceanic-oceanic plate collision
    b) transform faults perpendicular to a mid-oceanic ridge
    c) sea-floor spreading, causing rifting
    d) an earthquake due to brittle deformation
    e) none of the above

5. Plate boundaries are along coastlines:
    a) when continental crust is subducted under oceanic crust
    b) when oceanic crust is subducted under continental crust
    c) never
    d) always
    e) none of the above

6. Explain why decompression melting is related to mid-oceanic ridges.

7. Describe tectonic plate push and pull. List two factors that are contributing to the push/pull system.

8. The orientation of platy minerals in metamorphic rocks (foliation) is the result of:

9. Based on your knowledge of plate movement, illustrate with diagrams, a) what happened before the Himalayas were formed, b) when they began to form, and c) at present.