

## **Plate Tectonics – Chapter 19**

1. Explain some of the evidence for ‘continental drift’:
  - a. fit of continents,
  - b. fossil evidence (*Glossopteris* and *Mesosaurus*),
  - c. continuation of mountain belts, and
  - d.
  - e. paleoclimates,
  - f. polar wandering paths for N.A. and Europe.
2. What is sea floor spreading?
3. How do the geomagnetic reversals and mirror images of magnetic bands across the mid-ocean ridge support plate tectonics?
4. What are the different processes and resulting landforms that occur at the different types of plate tectonic margins? Give examples.
  - a. convergent,
  - b. divergent, and
  - c. transform margins?
5. What was Pangea?
6. What are the characteristic landforms from the 3 types of convergent margins, how do they differ and what are examples?.
  - a. continent-continent,
  - b. ocean-continent, and
  - c. ocean-ocean plate convergence.

7. How does the distribution of shallow, intermediate, and deep-focus earthquakes support plate tectonics?
8. What are hot spots and how does the Hawaiian Islands indicate the direction and rate of plate motion?
9. What is subduction?
  - a. Where does it occur?
  - b. What are the possible driving forces for subduction?
10. How do tectonic plates form, collide, and how are they destroyed?
11. What causes earthquakes and volcanic eruptions, and give examples where they are most common?
12. Where does new crust form, what is its composition, and characteristics?
13. What is the evidence for continental drift?
14. What is the evidence for sea-floor spreading?
15. How is the orientation of the magnetic field preserved in rocks?
16. What are paleomagnetic reversals? How do they provide evidence for sea-floor spreading?
17. What are the range of velocities for the movement of tectonic plates?
18. How was the Basin and Range Province of Arizona, Nevada formed?
19. What is included in the North American plate?