20. Faults are most common at the boundaries between tectonic plates, such as in the:
   A. New Madrid region of Missouri
   B. East African Rift Valley
   C. circum-Pacific belt
   D. all of the above
   E. none of the above

20. An example of a region of faulting and earthquakes in a continental interior setting is the:
   A. New Madrid region
   B. Pacific Northwest region
   C. Western Pacific region
   D. San Andreas fault region
   E. none of the above

20. The region of the U.S.A. that experienced at least 4 earthquakes in 1811-1812 (including a magnitude 8.1) was:
   A. the New Madrid region
   B. the Pacific Northwest region
   C. the Alaska region
   D. the San Andreas fault region
   E. the Hawaii region

20. If a fault is dipping into the ground at 60º, the block of rock above the fault is the (1) _________ and the block of rock below the fault is the (2) __________.
   A. (1) footwall (2) hanging wall
   B. (1) footwall (2) fault scarp
   C. (1) fault plane (2) footwall
   D. (1) hanging wall (2) fault plane
   E. (1) hanging wall (2) footwall

20. If a fault is dipping at any angle, the block of rock above the fault is the (1) _________ and the block of rock below the fault is the (2) __________.
   A. (1) footwall (2) hanging wall
   B. (1) footwall (2) fault scarp
   C. (1) fault plane (2) footwall
   D. (1) hanging wall (2) fault plane
   E. (1) hanging wall (2) footwall

20. When a fault slips, the (1) ________ moves up and the (2) ________ moves down:
   A. (1) hanging wall (2) footwall
   B. (1) footwall (2) hanging wall
   C. (1) fault block (2) fault plane
   D. (1) fault scarp (2) fault plane
   E. the answer depends on the type of fault

20. All faults must have dips that fall in the range:
   A. 60º to 90º
   B. 30º to 90º
   C. 0º to 90º
   D. 0º to 180º
   E. 30º to 45º

20. The type of fault that forms in a region of the crust undergoing extension is:
   A. reverse fault
   B. normal fault
   C. oblique-slip fault
20. D. left-lateral fault  
   E. right-lateral fault

20. In 1983, one of the largest earthquakes in the recorded history of the United States occurred near Borah Peak in Idaho. What was the magnitude of that earthquake?
   A. M 4.6  
   B. M 5.5  
   C. M 6.4  
   D. M 6.9  
   E. M 8.2

20. A graben, or rift valley, will only form in response to slip along:
   A. normal faults  
   B. reverse faults  
   C. thrust faults  
   D. strike-slip faults  
   E. any type of fault, as long as one side moves down

20. The type of fault that forms in a region where the crust is undergoing compression is a:
   A. thrust fault  
   B. reverse fault  
   C. normal fault  
   D. both A and B above  
   E. all of the above

20. Most normal faults have a dip of (1)_____; most reverse faults have a dip of (2)_____; and most strike-slip faults have a dip of (3)_____.
   A. (1) 60º     (2) 30º     (3) 90º  
   B. (1) 60º     (2) 90º     (3) 30º  
   C. (1) 30º     (2) 60º     (3) 90º  
   D. (1) 30º     (2) 90º     (3) 60º  
   E. (1) 90º     (2) 60º     (3) 30º

20. Which of the following type of faults is unlikely to have either a footwall or a hanging wall because the fault is typically vertical?
   A. normal  
   B. reverse  
   C. strike-slip  
   D. oblique-slip  
   E. thrust

20. Which of the following answers is the most accurate analysis of this statement: “When a fault slips, the hanging wall moves up and the footwall moves down.”
   A. this is only true of a normal fault  
   B. it depends on which side of the fault is the footwall, which varies depending on the fault type  
   C. with strike-slip faults, sometimes the opposite occurs  
   D. occurs along reverse faults and may produce mountains as the hanging wall gets uplifted  
   E. this motion may create valleys called grabens and mountains called horsts

20. Along the San Andreas fault, the west side is moving towards the north and the east side is moving relatively towards the south. This makes the San Andreas fault:
   A. a normal fault  
   B. a right-lateral fault  
   C. a left-lateral fault  
   D. a reverse fault  
   E. either a left or right-lateral fault (depending on what side of the fault you are standing on)

20. Rocks that warp upwards in the center of a fold produce a type of fold called a/an (1)_______ whereas rocks that warp downwards in the center produce a/an (2)_________.
   A. (1) anticline  (2) monocline  
   B. (1) anticline  (2) syncline  
   C. (1) syncline  (2) anticline
D. (1) syncline         (2) monocline
E. (1) anti-plunging fold  (2) plunging fold

20. Which of the following types of folds have TWO fold limbs?
    A. anticlines
    B. synclines
    C. monoclines
    D. all of the above
    E. only A and B above