ANSWER ANSWER ANSWER

Round: 10A

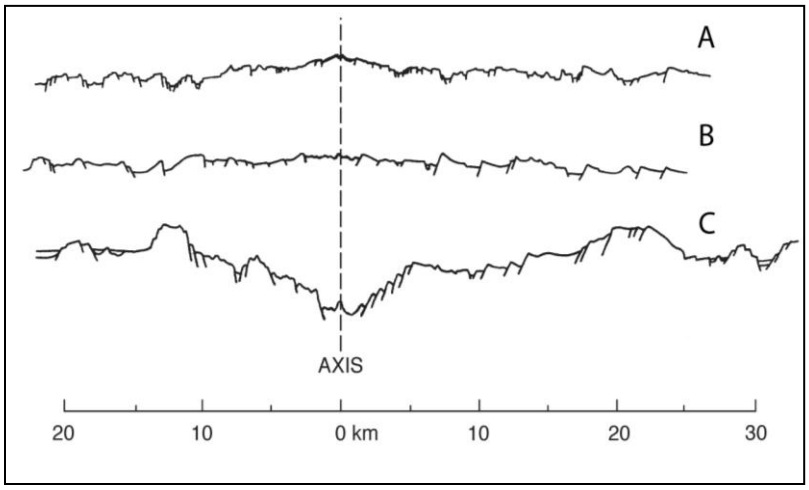

Figure 1: Cross Section of 3 different mid-ocean ridges.

1. What process forms the mid-ocean ridges?

   Seafloor spreading OR divergence OR crust pulling apart (2 pts)
   (1 pt only for volcanism or magmatism)

2. Match the characteristic, term, or location below with the letter of the most representative mid-ocean ridge shown above in Figure 1. Only one letter can be used per term below. *1 pt each, 14 pts total*

_*C*_ Presence of axial valley
_*C*_ Spreading rate of 2 cm/yr
_*A*_ East Pacific Rise
_*C*_ Slow-spreading
_*B*_ Intermediate-spreading
_*B*_ Juan de Fuca Ridge
_*C*_ Gakkel Ridge

_*A*_ Spreading rate of 12 cm/yr
_*B*_ Spreading rate of 7 cm/yr
_*A*_ Presence of axial high
_*A*_ Fast-spreading
_*C*_ Ultramafic rocks likely to be found here
_*A*_ Frequent small earthquakes are likely
_*C*_ Mid-ocean ridges with highest relief

3. Each of the small lines on the cross-section is representative of faulting. What type of faulting most likely occurs at the mid-ocean ridge, and how does the footwall move in relation to the hanging wall?

   Normal or extensional (2 pts)
   Footwall moves up in relation to hanging wall (or hanging wall moves down in relation to footwall (2 pts)