

CHM 152  
Quiz 9

Spring 2009  
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Name Key

1. If a process has a negative values for  $\Delta H_{\text{system}}$  and  $\Delta S_{\text{system}}$ , then the process is spontaneous at high temperatures.

$$\Delta G = \Delta H - T\Delta S$$

T

F

2. If a spontaneous process has a negative value for  $\Delta S_{\text{system}}$ , then the process must be exothermic.

T

F

3. The  $\Delta G^{\circ}_f$  value for  $\text{Cu}_{(s)}$  is zero.

T

F

4. The  $S^{\circ}$  value for  $\text{Cu}_{(s)}$  is zero.

T

F

5. If a chemical reaction has  $K_{\text{eq}} > 10$ , then  $\Delta G^{\circ}$  for the reaction must be negative.

T

F