

## Bio 111 Answer to iClicker Question 17A

Since the reaction  $\text{TNT} \Rightarrow \text{N}_2 + \text{CO}_2 + \text{H}_2\text{O}$  releases a large amount of energy, the energy has to come from somewhere. In this case, it comes from TNT. Therefore the TNT molecules must have more energy than molecules of  $\text{N}_2$ ,  $\text{CO}_2$ , and  $\text{H}_2\text{O}$ . Thus (B) is the correct answer.

## Bio 111 Answer to iClicker Question 17B

For a reaction to go from reactants  $\Rightarrow$  products, it must be spontaneous ( $\Delta G < 0$ ); only reactions  $\text{E} \Rightarrow \text{F}$  and  $\text{G} \Rightarrow \text{H}$  are spontaneous. The lower the activation energy (the height of the bump between reactants and products), the faster the reaction. Therefore,  $\text{G} \Rightarrow \text{H}$  will be the fastest. (D) is correct.