Use the given  $pK_a$  values to determine the direction of the equilibrium (forward or reverse favored?). Explain briefly.

$$^{\odot}$$
O-CH<sub>3</sub> +  $^{H}$ N-CH<sub>2</sub>CH<sub>3</sub>  $\longrightarrow$  HO-CH<sub>3</sub> +  $^{\odot}$ N-CH<sub>2</sub>CH<sub>3</sub> pK<sub>a</sub> ~16

- A) **Reverse** reaction is favored, because H<sub>2</sub>NCH<sub>2</sub>CH<sub>3</sub> is the stronger acid.
- B) **Reverse** reaction is favored, because H<sub>2</sub>NCH<sub>2</sub>CH<sub>3</sub> is the weaker acid.
- C) **Forward** reaction is favored, because H<sub>2</sub>NCH<sub>2</sub>CH<sub>3</sub> is the stronger acid.
- D) **Forward** reaction is favored, because H<sub>2</sub>NCH<sub>2</sub>CH<sub>3</sub> is the weaker acid.