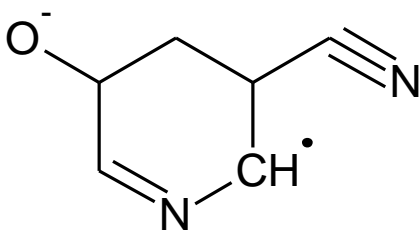


Name: _____

Instructions: Answer each of the following questions to the best of your ability. You will have 10 minutes to complete this quiz.

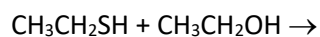
1. (4 points) Answer each question regarding this molecule:



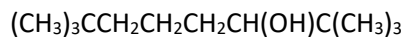
- How many carbon atoms are in this structure?
- How many sp hybridized atoms are in this structure?
- How many sp³ hybridized atoms are in this structure?
- Circle all of the sp² hybridized atoms in the structure.

2. (5 points) With the reactants below (pKa information at the bottom):

- Determine the products.
- Label the acid, base, conjugate acid, and conjugate base.
- Determine which side is dominant at equilibrium.



3. Draw the skeletal structure for:



Species	CH ₃ CH ₂ SH	CH ₃ CH ₂ OH	CH ₃ CH ₂ OH ₂ ⁺
pKa	10.5	16.0	-2.4