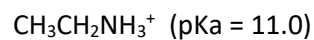
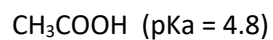


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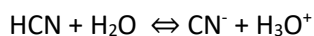
Instructions: Answer each of the questions below to the best of your ability. You will have 10 minutes to complete this quiz.

1. (4 points) Draw the predominant form for each of the species below at pH = 3 and pH = 14



2. (3 points) Considering the reaction and information below, what side is favored at equilibrium. What is the more acidic species on the reactant side? If equilibrium favors the formation of a weak acid, what is the weak acid formed?

| | | | |
|-----------------|-----|------------------|-------------------------------|
| Species | HCN | H ₂ O | H ₃ O ⁺ |
| pK _a | 9.1 | 15.7 | -1.7 |



3. (3 points) For each pair of acids below, determine which is the stronger acid:

