Instructions: Read the directions to each type of question carefully.

1. Write a structure for each of the following compounds. (2)
   
a. isopropyl alcohol  
b. ethyl propyl ether  
c. isohexyl chloride  
d. methylcyclopentane  
e. bromocyclohexane
2. Arrange the following compounds in order of increasing boiling points with brief explanation. (2)

\[
\begin{align*}
\text{H}_2\text{O} & \quad \text{HO} \quad \text{HO} \\
\text{HO} & \quad \text{HO} \quad \text{HO}
\end{align*}
\]
3 Name the following compounds. (2)

a. CH₃OCH₂CH₃  
b. CH₃CH₂NH₂  
c. CH₃CH₂CH₃CH₂CH₂CH₃

d.  
e.  
4 Which of the following compounds form hydrogen bonds between its molecules? (1)

a. Diethyl ether  b. pentanoic acid  c. Hexane  d. n-Butyl bromide

e. Pentane  f. 2-methylcyclohexanol

5. Write the cis and trans isomers for the following compound in chair conformation. (2)
6. Identify carbon 1, 2, 3, 7, 8 in the following molecule as primary, secondary, tertiary and quaternary carbons. (1)