Quiz 1 - Answer Key

(In class) 12 pts.

1. \( \text{trigonal planar} \)

\[ \begin{array}{c}
\text{tetrahedral} \\
\text{trigonal planar}
\end{array} \]

(Homework) 12 pts.

1. a) \( \begin{array}{c}
\text{coplanar: } O \ (N, C, O, sp^2) \\
\text{dipole (see above)}
\end{array} \)

b) \( H-C-H \) 109.5°

\( H-C-C \) 109.5°

\( C-C-O \) 120°

\( O-C-N \) 120°

c) \( \text{coplanar: } O \ (N, C, O, sp^2) \)

d) \( \text{dipole (see above)} \)

e) \( \text{ethanol: } H^- \text{bonding; dichloromethane: dipole-dipole} \)

f) \( \text{N,N-dimethylacetamide} \) does not have hydrogen bonding as an intermolecular force, whereas acetamide does. Acetamide has a higher boiling point because its intermolecular forces are stronger (even though dimethylacetamide weighs more).