1. For the reaction: $O_3 + 2 NO_2 \longrightarrow O_2 + N_2O_5$

The proposed mechanism is

 $\begin{array}{ccc} O_3 + & NO_2 & \longrightarrow & NO_3 + & O_2 \\ NO_3 + & NO_2 & \longrightarrow & N_2O_5 \end{array} & fast$

What is the rate law

A. Rate = k [NO3] [NO2]

B. Rate = k [NO3] [O2]

C. Rate = k [O3] [NO2]

D. Rate = k [N2O5]

- 2. What is meant by a scaffold?
 - A. The lead compound
 - B. The carbon skeleton of a compound
 - C. The core structure of a molecule that is common to a series of compounds
 - d.The pharmacophore
- 3. The compound with the highest boiling point and solubility in water is

A. HOCH₂CH₂OH

- B. CH_3CH_2CI
- C. CH₃CH₂CH₃
- $D. \ CH_3CH_2OH$