Let set \( P = \{000, 001, 010, 011, 100, 101, 110, 111\} \) and a partial order \( x \leq y \) is defined as:
\[
x \leq y \text{ if } (x \& y) = x \quad \text{where} \; \& \; \text{is a bitwise and}
\]

The figure on the right shows the Hasse diagram of the lattice \((P, \leq)\):

1. What are the top and bottom elements of the lattice?

2. Is this a complete lattice?

3. What is the least upper bound of the set \(\{000, 100, 001\}\)?

4. What elements does 011 cover?