1) List the four things that can happen to a carbocation. (2pts)

2) Circle the more stable carbocation in each pair (3pts)

\[\text{and}\]

\[\text{and}\]
Answer 3 of the following 4 mechanism questions, each worth 5 points.

3 x 5 = 15 points
3) Write the mechanism for the following addition reaction.
4) Write the mechanism for this reaction.

\[
\text{OH} \quad \text{OH} \quad \text{Br} \quad \text{H}^+ \quad \text{Br}
\]
5) Write the mechanism for this Baeyer Villager oxidation.
6) Write the mechanism for this ring expansion.
1) List the four things that can happen to a carbocation. (2pts)
   - React with leaving group → Starting Material
   - React with nucleophile → SN1 product
   - React with base, lose a H⁺ → E1 product
   - Rearrange

2) Circle the more stable carbocation in each pair (3pts)
Answer 3 of the following 4 mechanism questions, each worth 5 points.

\[ 3 \times 5 = 15 \text{ points} \]
3) Write the mechanism for the following addition reaction.
4) Write the mechanism for this reaction.

[Chemical structures and reaction mechanism]
5) Write the mechanism for this Baeyer Villager oxidation.
6) Write the mechanism for this ring expansion.