What is the major product of the following reaction?

\[ \text{A} \quad \text{B} \quad \text{C} \quad \text{D} \]

Propose a mechanism for the following reaction.

\[ \text{A} \quad \text{B} \quad \text{C} \]

Arrange the following compounds in order of increasing acidity.

\[ \text{i} \quad \text{ii} \quad \text{iii} \]

\[ \text{A} \quad \text{B} \quad \text{C} \quad \text{D} \quad \text{E} \quad \text{F} \]
Predict the product of the following reaction.

\[ \text{Propose a mechanism for the following reaction.} \]

\[ \text{Mannich Reaction} \]

\[ \text{Predict the product of the following reaction} \]

\[ \text{Predict the product of the following reaction sequence.} \]
Choose the structure that is not an intermediate in the following reaction.

A

B

C

D

Propose a mechanism for the following reaction.

\[ \text{H}_2\text{C-O} \xrightarrow{\text{2OH}_2} \text{H}_2\text{C-O} \xrightarrow{\text{2HO}_2} \text{H}_2\text{C-O} \xrightarrow{\text{2H}_2\text{O}_2} \text{H}_2\text{C-O} \xrightarrow{\text{2H}_2\text{O}_2} \text{H}_2\text{C-O} \xrightarrow{\text{2H}_2\text{O}_2} \text{H}_2\text{C-O} \xrightarrow{\text{2H}_2\text{O}_2} \text{H}_2\text{C-O} \xrightarrow{\text{2H}_2\text{O}_2} \text{H}_2\text{C-O} \xrightarrow{\text{2H}_2\text{O}_2} \]