QUESTION 1
MC40a
Which describes the ALLOWED product of this reaction?

\[
\begin{align*}
\text{A} & \quad \text{Hückel transition state, suprafacial/suprafacial reaction} \\
\text{B} & \quad \text{Hückel transition state, suprafacial/antarafacial reaction} \\
\text{C} & \quad \text{Möbius transition state, suprafacial/suprafacial reaction} \\
\text{D} & \quad \text{Möbius transition state, suprafacial/antarafacial reaction}
\end{align*}
\]

QUESTION 2
MC30u
Which correctly and completely describes the product of the following Diels-Alder reaction?

\[
\begin{align*}
\text{A} & \quad \text{MeO} \\
\text{B} & \quad \text{MeO} \\
\text{C} & \quad \text{MeO} \\
\text{D} & \quad \text{MeO}
\end{align*}
\]

QUESTION 3
MC30g
Give the product of the following reaction under THERMODYNAMIC control conditions (high temperature)

\[
\begin{align*}
\text{A} & \quad \text{Br} \\
\text{B} & \quad \text{Br} \\
\text{C} & \quad \text{Br} \\
\text{D} & \quad \text{Br}
\end{align*}
\]
QUESTION 4
MC30h

Give the product of the following reaction under THERMODYNAMICALLY controlled conditions (high temperature)

QUESTION 5
MC40d

Which best describes the following reaction?

QUESTION 6
MC30w

How many VERTICAL nodes do the Highest Occupied and Lowest Unoccupied π-Molecular Orbitals of the anion formed upon deprotonation of the structure shown?

A) HOMO = 0 and LUMO = 1  
B) HOMO = 1 and LUMO = 2  
C) HOMO = 2 and LUMO = 3  
D) HOMO = 3 and LUMO = 4
QUESTION 7

Which best describes the following reaction?

\[
\begin{align*}
\text{Ph} & + \text{Ph} \rightarrow \text{Ph} \\
\quad & + \text{Ph}
\end{align*}
\]

A suprafacial on the anion and suprafacial on the alkene  
B suprafacial on the anion and antarafacial on the alkene  
C antarafacial on the anion and suprafacial on the alkene  
D antarafacial on the anion and antarafacial on the alkene

QUESTION 8

Which answer describes the number of VERTICAL nodes for the HOMO and the LUMO of ozone?

\[
\begin{align*}
\text{ozone} & \\
\quad & \\
\quad & \\
\quad & \\
\quad & \\
\quad & \\
\quad & \\
\quad & \\
\quad & \\
\quad & \\
\quad & \\
\end{align*}
\]

A) HOMO = 0 and LUMO = 1  
B) HOMO = 1 and LUMO = 2  
C) HOMO = 2 and LUMO = 3  
D) HOMO = 3 and LUMO = 4

QUESTION 9

There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes

I study hard to learn organic chemistry.

A) Never  
B) Rarely  
C) Sometimes  
D) Often  
E) Always
QUESTION 10
There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes
I spend a lot of time learning organic chemistry.

A  Never
B  Rarely
C  Sometimes
D  Often
E  Always

QUESTION 11
There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes
I put enough effort into learning organic chemistry.

A  Never
B  Rarely
C  Sometimes
D  Often
E  Always

QUESTION 12
There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes
I use strategies to learn organic chemistry well.

A  Never
B  Rarely
C  Sometimes
D  Often
E  Always
QUESTION 13
There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes
What overall final grade do you really need in this class (note that the question asks about the grade that you need, not the grade you want, these two may not be the same!)?
A
B
C
D

QUESTION 14
There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes
As of today, what final grade would you be realistically willing to accept in this course
A
B
C
D