Question 1

Which best describes the relationship between the following two structures?

- **A** structural isomers
- **B** different structures and not isomers
- **C** stereoisomers
- **D** the same thing

![trans-1,3-diethylcyclohexane]

**Question 2**

What is the energy difference between the two chair conformations of the following molecule?

- **A** 1.5 kcal/mol
- **B** 3.7 kcal/mol
- **C** 0.55 kcal/mol
- **D** 3.15 kcal/mol

<table>
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<tr>
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<td>H / H</td>
<td>~1.0</td>
<td>Me / Me</td>
<td>~0.9</td>
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<tr>
<td>H / Me</td>
<td>~1.4</td>
<td>Et / Me</td>
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<td></td>
<td>t-Bu / Me</td>
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Question 3
MC23h

which of the provided compounds has this IR spectrum?

A

B

C

D

Question 4
MC19i

Which is the lowest energy conformation of the following structure?

A

B

C

D

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Question 5
MCir3
which of the provided compounds has this IR spectrum?

[IR spectrum image]

A  
B  
C  
D

Question 6
MC23a
which of the provided compounds has this IR spectrum?

[IR spectrum image]

A  
B  
C  
D
**Question 7**

MC23f

Identify the structure with the following IR spectrum

![IR Spectrum Image]

A B C D

**Question 8**

MCalkanes2

Identify the Newman projection that represents the HIGHEST energy conformer for rotation around the C3-C4 bond in 2,2,3,5,5-pentamethylhexane. You need to identify the Newman projection that has C3 at the FRONT.

R = CH₂C(Me)₃  R = CH₂C(Me)₃

![Newman Projection Image]
QUESTION 9
There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes
I believe I can earn an A grade in 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 am confident that I will do well on organic chemistry tests
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 believe that I can master organic chemistry knowledge and skills
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’m sure I can understand organic chemistry
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