CHM 233 : Fall 2015
Quiz #8

Question 1
MC25c

How many different signals would you expect to see in a proton-decoupled carbon nmr spectrum of the following compound?
(remember, a proton decoupled carbon nmr means that the spectrum is run in such a way that the signals are not split, we only use this kind of carbon nmr spectrum in this class)

A   3
B   4
C   6
D   8

Question 2
MC25j

Which correctly describes the number of signals seen in the proton decoupled carbon nmr spectra of the following 3 compounds (i, ii and iii)?
(remember, a proton decoupled carbon nmr means that the spectrum is run in such a way that the signals are not split, we only use this kind of carbon nmr spectrum in this class)

A  7 signals for i, 5 signals for ii and 6 signals for iii.
B  11 signals for i, 10 signals for ii and 8 signals for iii.
C  7 signals for i, 4 signals for ii and 5 signals for iii.
D  8 signals for i, 4 signals for ii and 7 signals for iii.
Question 3
MCnrm2

Identify the most deshielded carbon atom in the following structure as that labelled A, B, C or D.

\begin{center}
\includegraphics{structure}
\end{center}

Question 4
MC25n

Which compound has the following nmr spectrum?

\begin{center}
\includegraphics{nmr_spectrum}
\end{center}

\begin{center}
A \hspace{1cm} B \hspace{1cm} C \hspace{1cm} D
\end{center}
**Question 5**

Which carbon would be the LEAST deshielded in methyl pyruvate?

![Methyl Pyruvate Structure]

**Question 6**

Which compound has the spectra provided?

![Spectra with m/z=116 and peaks at 2998, 1729, 1492, 2899]

(A) [Structure A]

(B) [Structure B]

(C) [Structure C]

(D) [Structure D]
Question 7
MC25e

Which compound has these spectra?

2 peaks here

m/z=116

3H triplet

1732

2892

1492

3406

2992

2H sextet

2H triplet

2H triplet

2H quartet

A

B

C

D
Question 8
MC25h

Which compound has these spectra?

A

B

C

D
QUESTION 9
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 expect to earn in this class?
A
B
C
D

QUESTION 10
There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes
How hard did you work on organic chemistry this week (not including watching/attending lectures)
A Very Hard
B Hard
C Somewhat Hard
D Not very Hard this week