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**Opportunity #2 Part V**  
**NMR Problem Solving**

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**Name:**

List any partners who worked with you:

*Instructions*

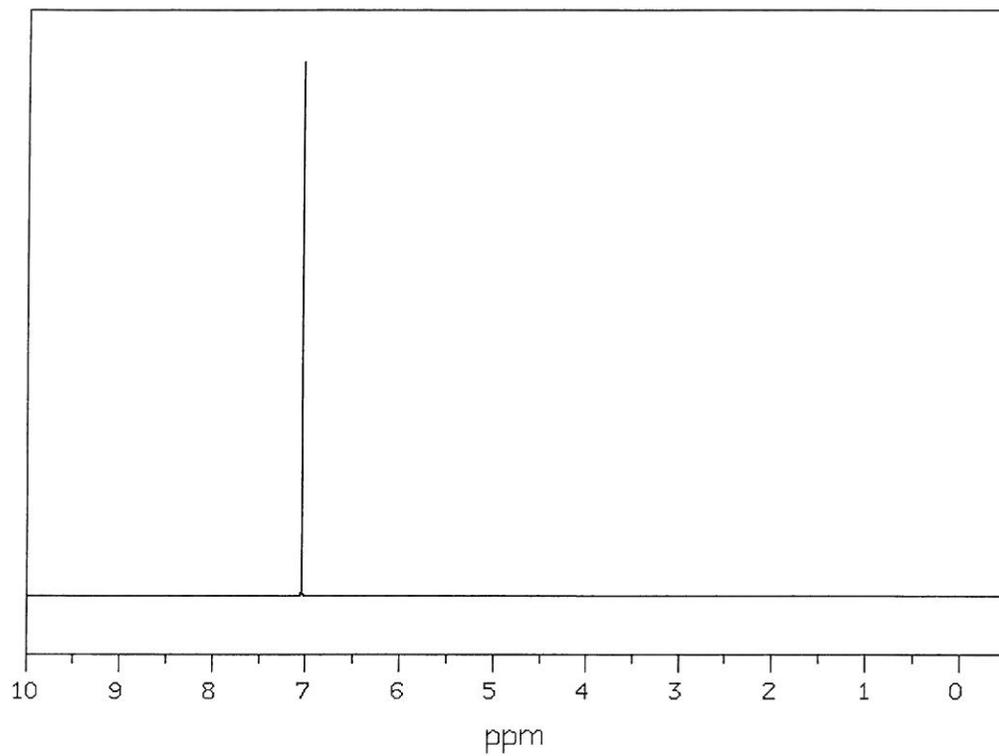
For each of the spectra draw the structure that would be responsible for the spectrum. To make interpretation a little easier, I have included the splitting type and number of hydrogens for each set of signals in the spectrum, from left to right. In other words,

$C_4H_8O$ ; quartet (2H), triplet (3H), singlet (3H)

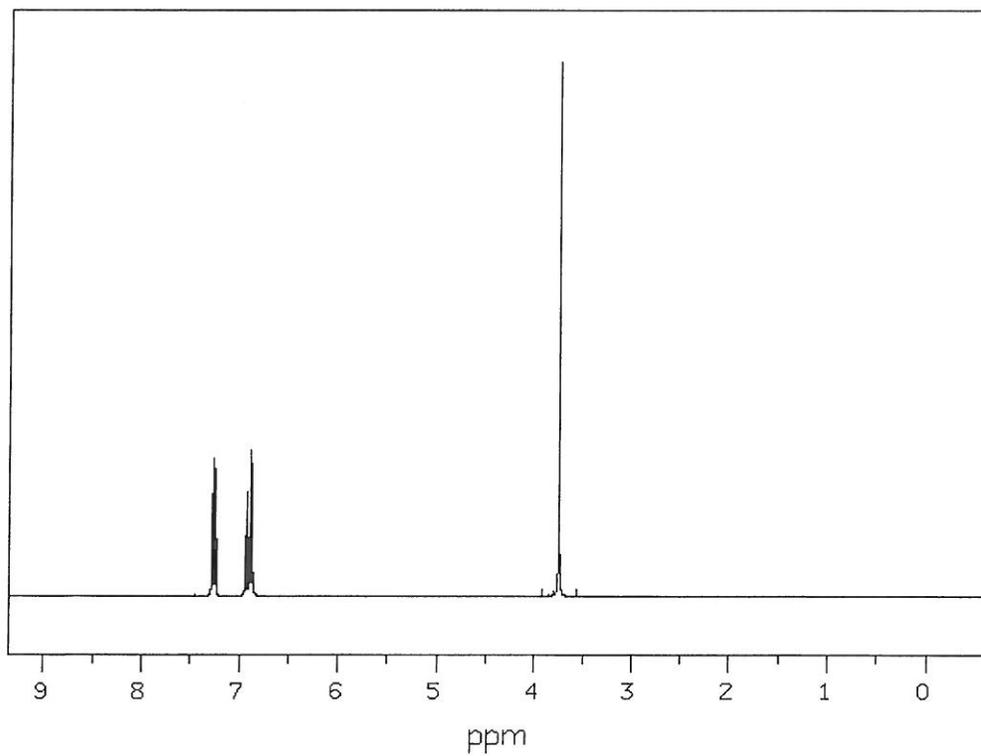
means, that the three sets of peaks, starting from the left are a quartet due to two hydrogens, a triplet due to three hydrogens and a singlet due to three hydrogens.

1.	2.
3.	4.
5.	6.

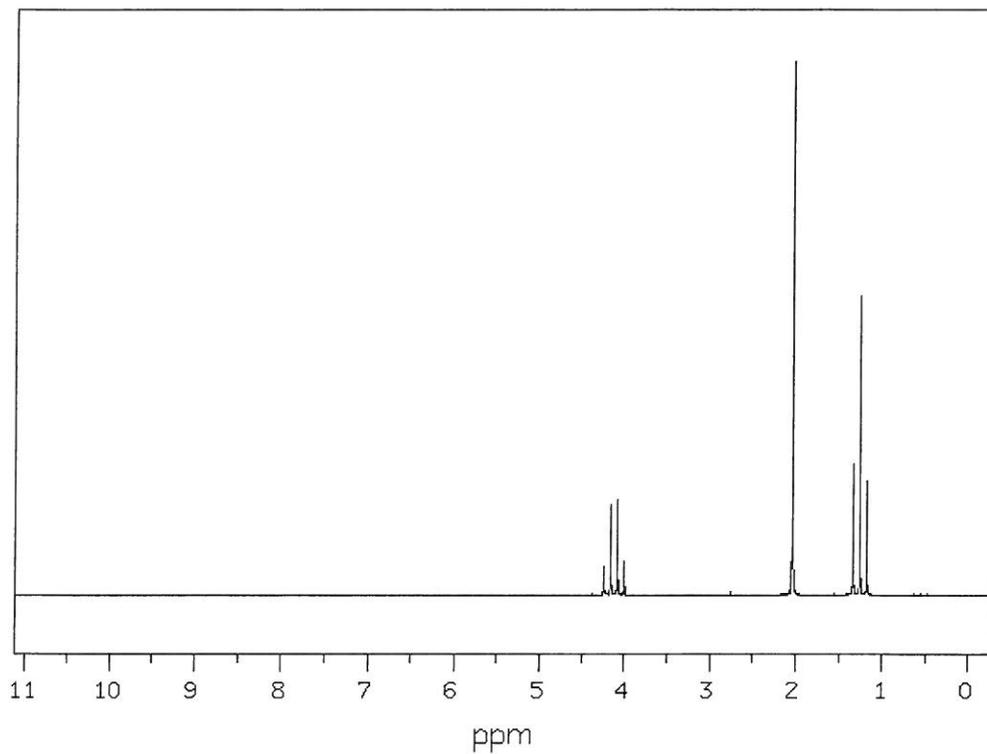
1.  $C_4H_2O_3$ ; singlet (2H)



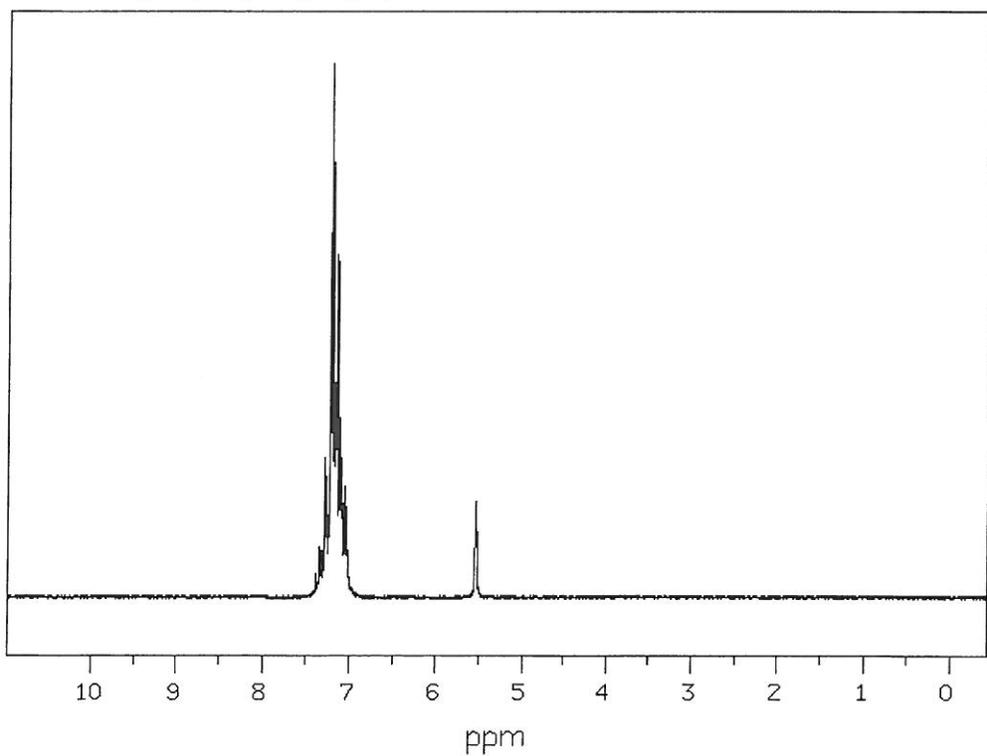
2.  $C_7H_8O$ ; multiplet (5H), singlet (3H)



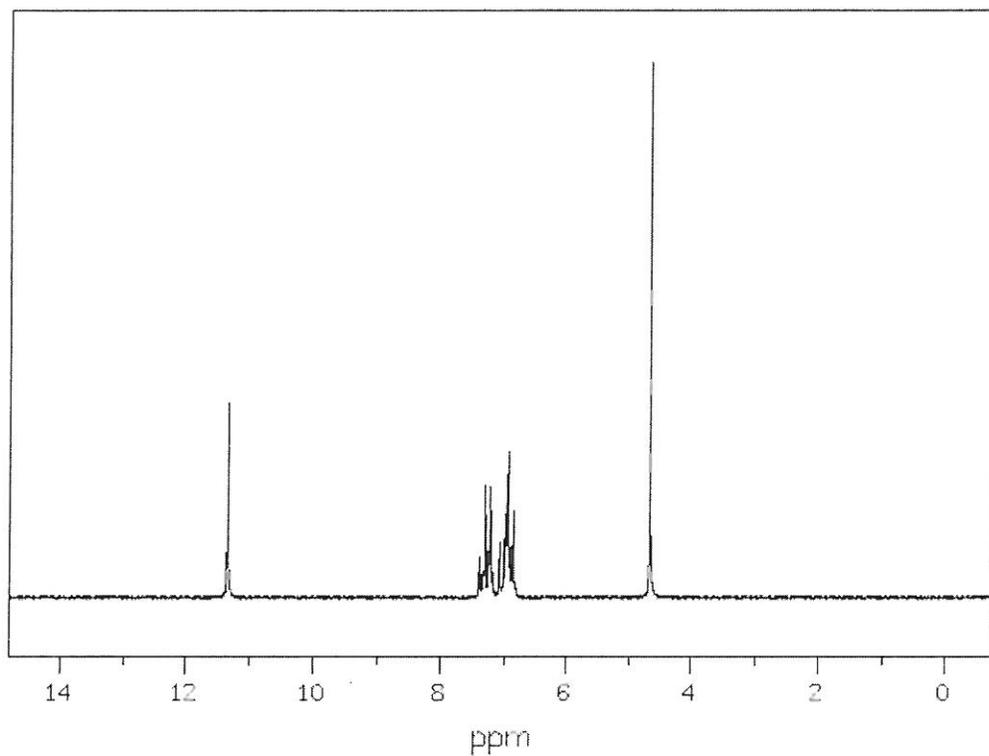
3.  $C_4H_8O_2$ ; quartet (2H), singlet (3H), triplet (3H)



4.  $C_{19}H_{16}$ ; multiplet (15H), singlet (1H)



5.  $C_8H_8O_3$ ; singlet (1H), multiplet (5H), singlet (2H)



6.  $C_4H_7NO$ ; triplet (2H), singlet (3H), triplet (2H)

