Quiz 5: Monday Afternoon
Name:

Note: You will have 30 minutes to complete the following quiz.

1) The following molecule is a mass spec of pentanone (C₅H₁₀O) (amu = 86). Use the fragments to predict which isomer of pentanone this is a mass spec of (4 points).

2) Show a structure for a compound that has the molecular formula C₉H₁₂ consistent with the following NMR. (6 points)
Quiz 5: Monday Morning

Name:

Note: You will have 30 minutes to complete the following quiz.

1) 4,4-dimethylpentan-2-ol (amu = 116) has fragmentation peaks at 98 and 57. What are these peaks? (4 points)

![Diagram showing fragmentation peaks]

radical can be in other places

2) Show a structure for a compound that has the molecular formula C₅H₁₀O₂ consistent with the following NMR. (6 points) (tq = triplet of quartets)

![NMR spectrum diagram]

2H, t  3H  2H, tq  3H, t
Quiz 5: Friday Morning
Name:

Note: You will have 30 minutes to complete the following quiz.

1) 2-Hexanone shows 2 fragments at 85 & 43. What are these fragments? (4 points)

2) Show a structure for a compound that has the molecular formula C₃H₇NO consistent with the following NMR (6 points)
Quiz 5: Wednesday Afternoon
Name:

Note: You will have 30 minutes to complete the following quiz.

1) Show a mechanism for the following fragmentation (2 → 3). (4 points)

2) Show a structure for a compound that has the molecular formula C₃H₄ consistent with the following NMR. (6 points)
Quiz 5: Wednesday Morning
Name:

Note: You will have 30 minutes to complete the following quiz.

1) Show a mechanism for the following fragmentation (2 → 3). (4 points)

2) Show a structure for a compound that has the molecular formula C₄H₁₀O consistent with the following NMR. (6 points)