Proton NMR Practice

1. Draw the structure of each of the following from their molecular formula and proton NMR spectrum

a. $\text{C}_5\text{H}_{12}\text{O}$

![Proton NMR Spectrum of C$_5$H$_{12}$O](image1)

b. $\text{C}_{10}\text{H}_{12}\text{O}_2$

![Proton NMR Spectrum of C$_{10}$H$_{12}$O$_2$](image2)

c. $\text{C}_4\text{H}_{11}\text{N}$

![Proton NMR Spectrum of C$_4$H$_{11}$N](image3)
d. C₉H₁₀O

2. Draw the structures of the major and minor elimination products and the sole substitution product in the reaction below. Match each product with its proton NMR spectrum and justify your choices.