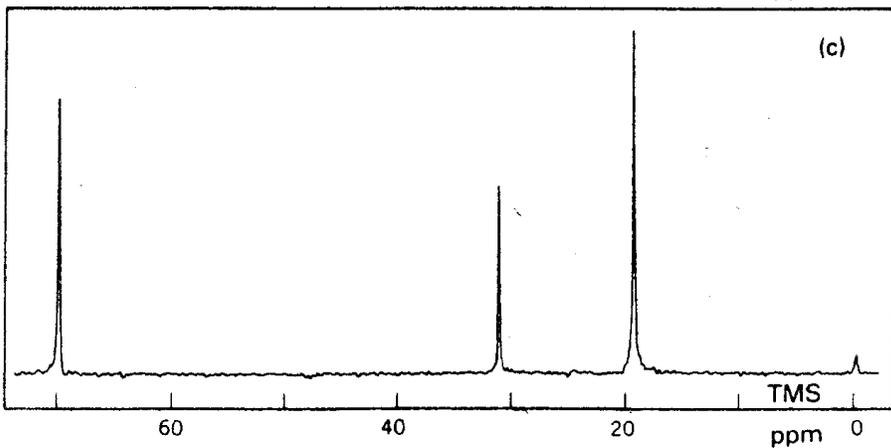
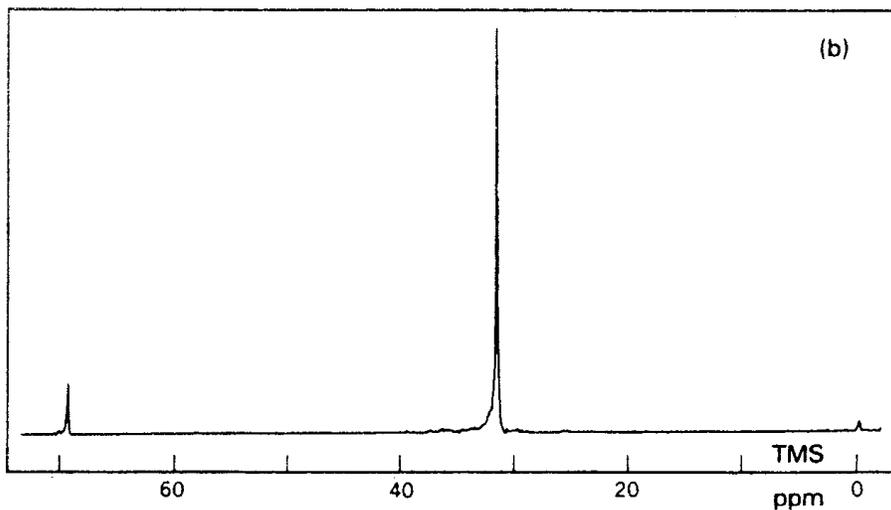
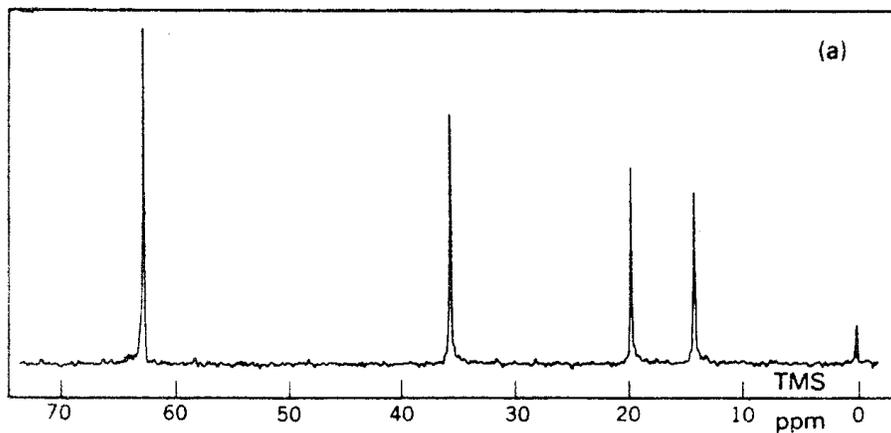


1. (12 points) The following proton-decoupled ^{13}C NMR spectra belong to three isomeric compounds $\text{C}_4\text{H}_{10}\text{O}$. Identify the three compounds from their spectra. Support your structures by calculating the chemical shifts for each distinct carbon atom.



2. (7 points) Which compounds show the following ^{13}C NMR spectra? Support your structures with calculated chemical shifts.

