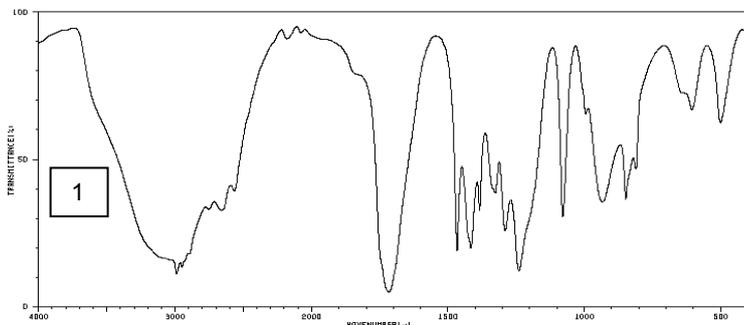




IR PROBLEMS 2

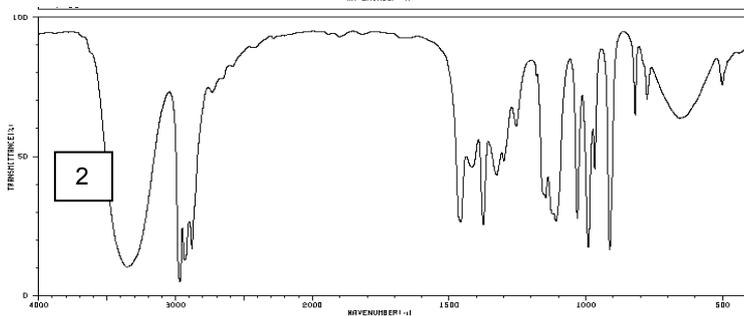
The IR spectra of five compounds are shown. Next to its IR spectrum, draw the structure of the compound and identify by wavenumber and bond the key signals that helped you identify that compound.

propanoic acid, butanone, 2-methylbut-2-ene, 1-hydroxypropanone, butan-2-ol



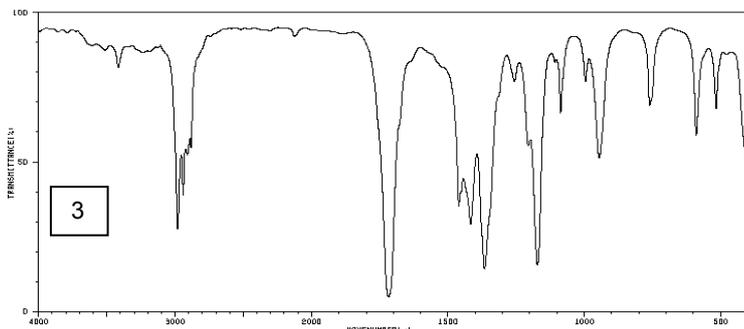
propanoic acid

acid O-H 2500-3000 cm^{-1}



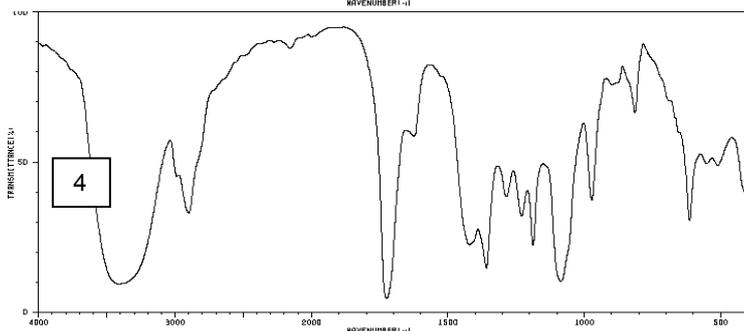
butan-2-ol

alcohol O-H 3230-3550 cm^{-1}



butanone

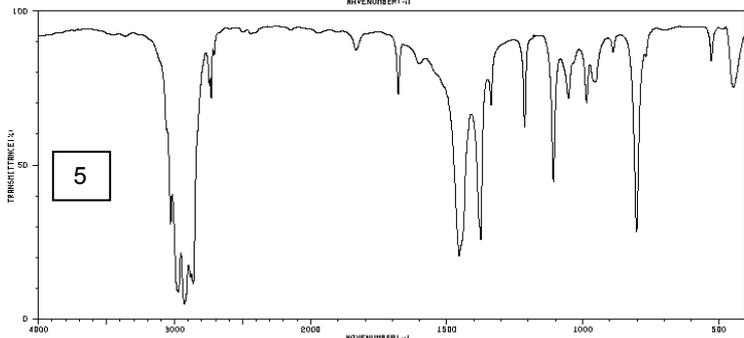
C=O 1680-1750 cm^{-1}



1-hydroxypropanone

alcohol O-H 3230-3550 cm^{-1}

C=O 1680-1750 cm^{-1}



2-methylbut-2-ene

C=C 1620-1680 cm^{-1}