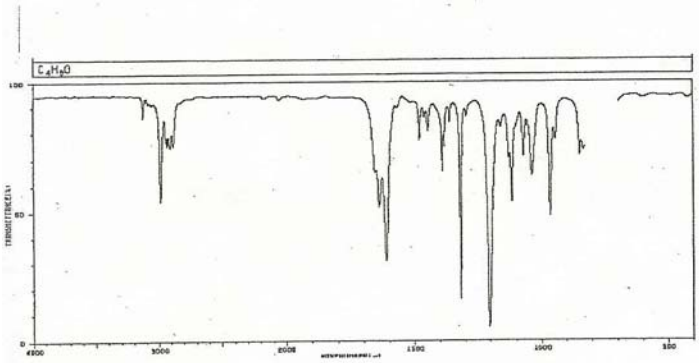
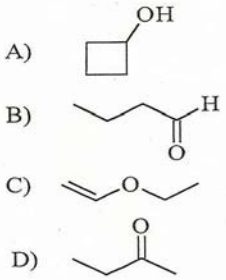
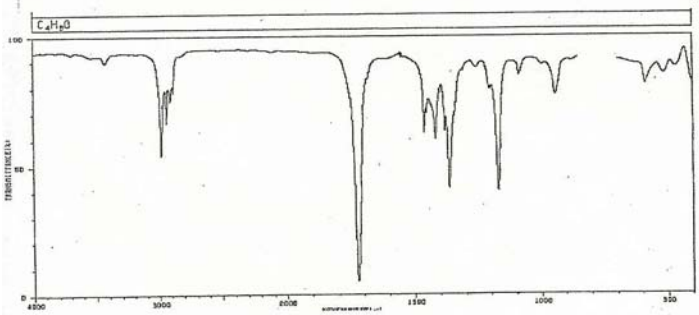
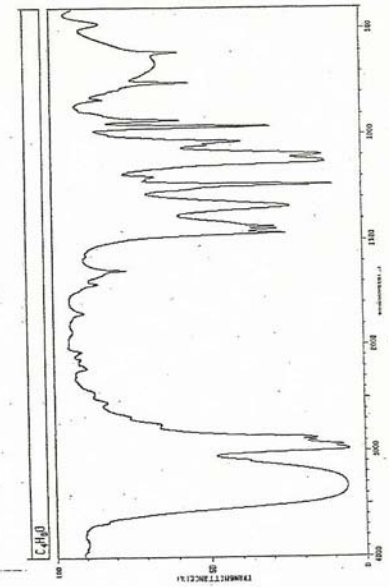
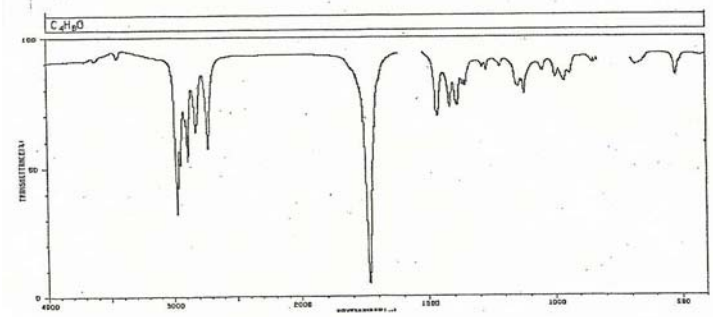
2.(16) Match the four IR spectra below with the following isomers of C_4H_8O. **Also**, site at least one feature of each spectrum that distinguishes it from all the others (and state to what the absorption is due, e.g. C-O str.)









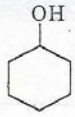


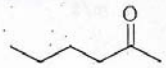
Name_____

18 February 2003

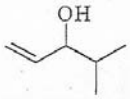
Answer all of the questions in the space provided. For partial credit, you need to show thought-processes.

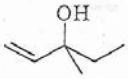
1.(20) The mass spectra shown below correspond to the following structural isomers (all with m^+=100). Match each molecule with its spectrum and *identify the fragment corresponding to the* ***base peak*** in each spectrum (for cyclohexanol, identify the fragment corresponding to the *second* most abundant peak).

a) 

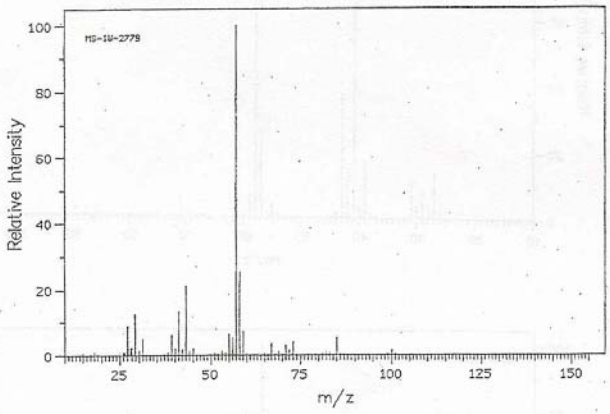
b) 

c) $CH_2{=}CHCH_2OCH_2CH_2CH_3$

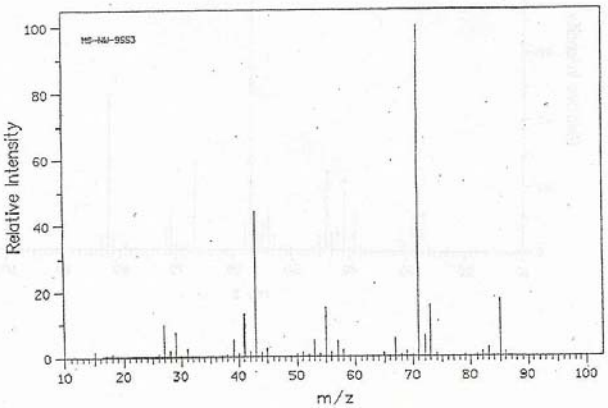
d) 

e) 

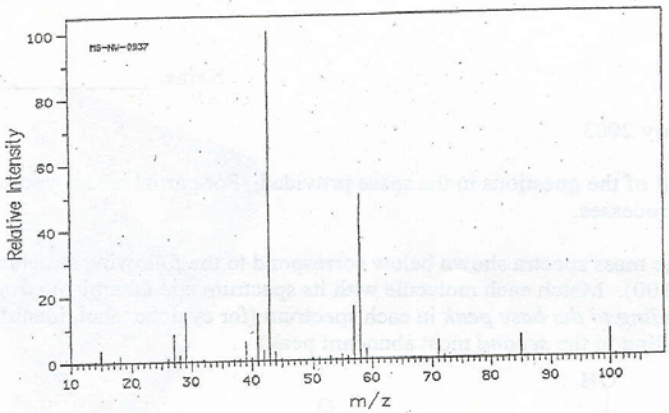
1) ____



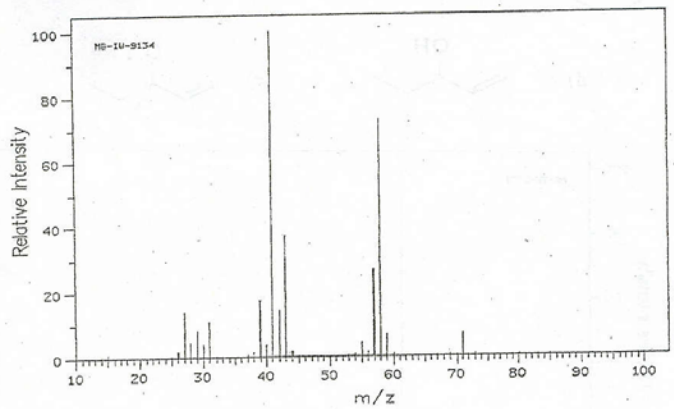
2) ____



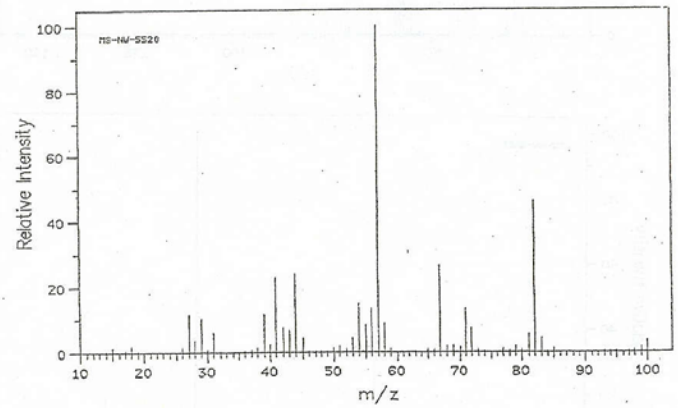
3) ____


MS-NW-0937
Relative Intensity
m/z

4) ____


MS-IW-9134
Relative Intensity
m/z

5) ____


MS-NW-5520
Relative Intensity
m/z