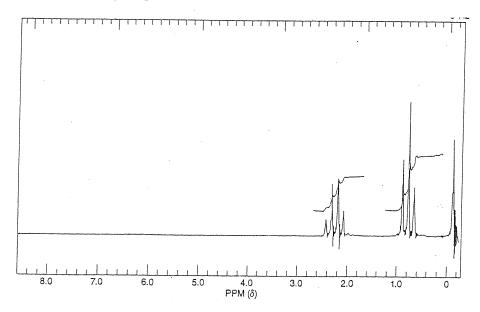
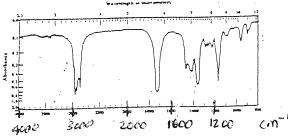
10. Propose a structure for  $C_6H_{15}N$  using the NMR spectrum shown. Indicate which hydrogens produce which signal in the NMR spectrum.



Multiple Choice question.

: write your response on the line to the left of the

1. The infrared spectrum of an unknown compound is reproduced below. What is the structure of the compound?



 $\begin{array}{c} \text{OH} \\ \text{A. } \text{CH}_3\text{CH}_2\text{CH}_2\text{CHCH}_3 \end{array}$ 

B. CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>CCH<sub>3</sub>

C. CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>

D. CH<sub>3</sub> CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>COH:

2. What is the hybridization of the nitrogen in pyridine?

N ?

A. s

B. sp

C. sp2

D. sp3