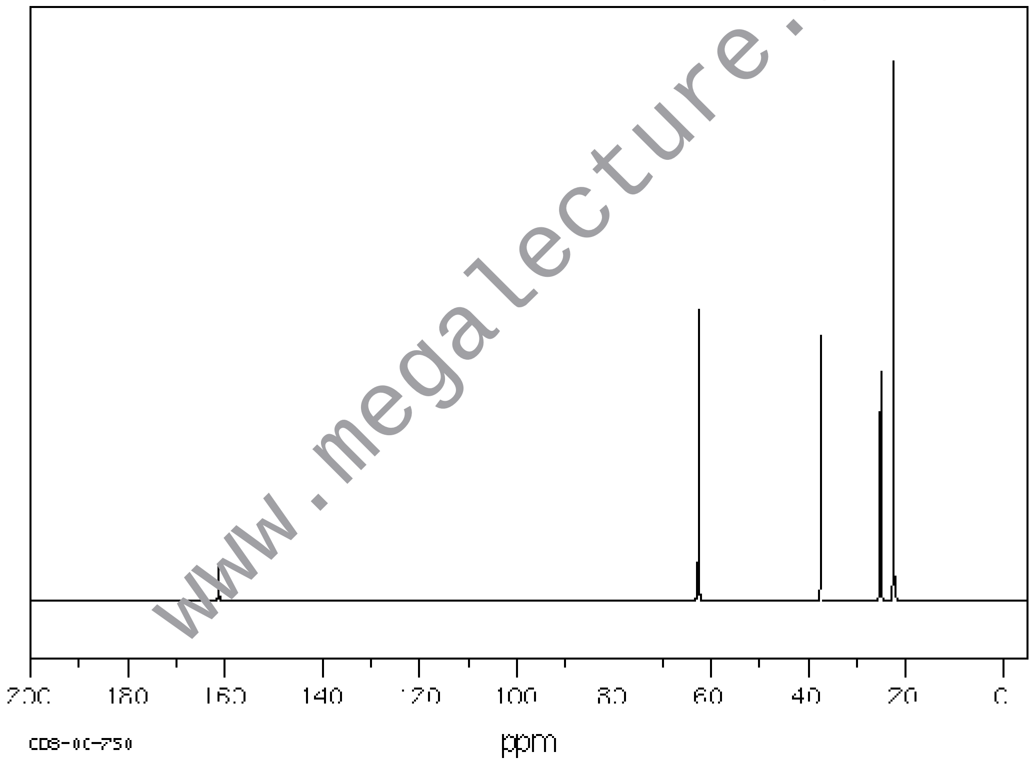
Topic 20 Exercise 2 – carbon-13 nmr spectra

1. a) Suggest how propanal and propanone could be distinguished from their carbon-13 nmr spectra.

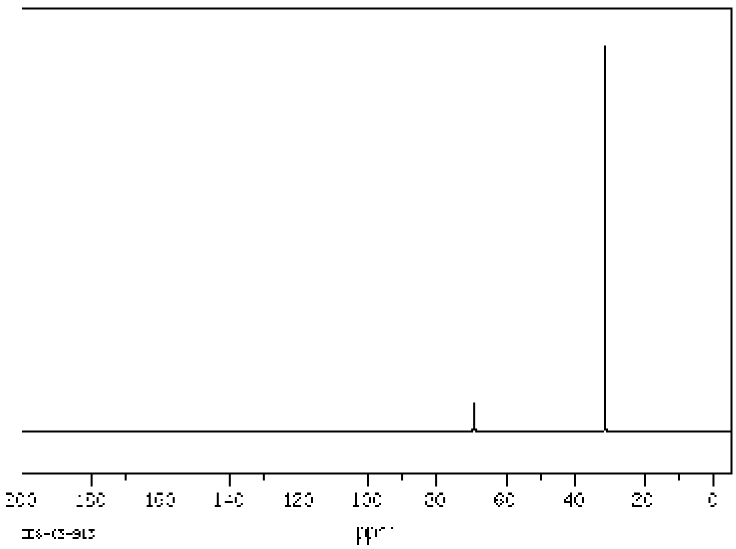
b) Suggest how propan-2-ol and propanone could be distinguished from their carbon-13 nmr spectra.

c) Predict the number of peaks in the carbon-13 nmr spectrum of:
- i) butanone
- ii) pentan-2-one
- iii) pentan-3-one

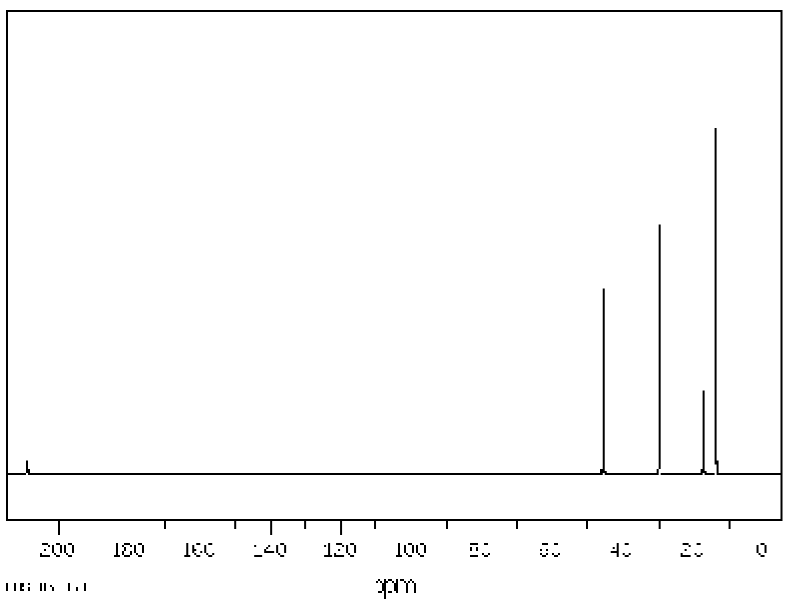
2. Can you find seven different molecules which could be responsible for the carbon-13 nmr spectrum below? (rmm = 116)



3. Can you identify this molecule (rmm = 74)?



4. Can you find three possible structures for this molecule (rmm = 86)?



5. Can you identify this molecule (rmm = 102)