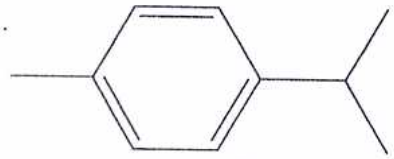
Quiz 2 S343 Summer 2008

Name_____

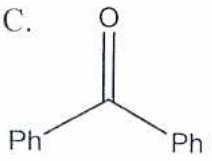
For problems 1-4, match each spectrum to the appropriate compound. (8pts)

A.

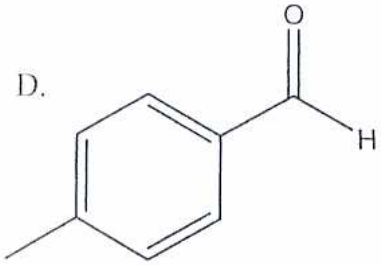


B.

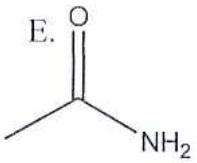
C.



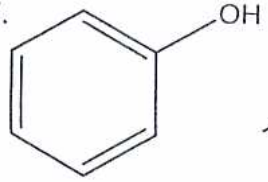
D.



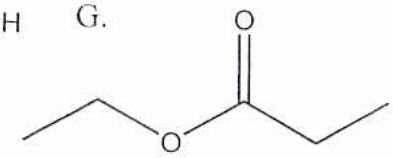
E.



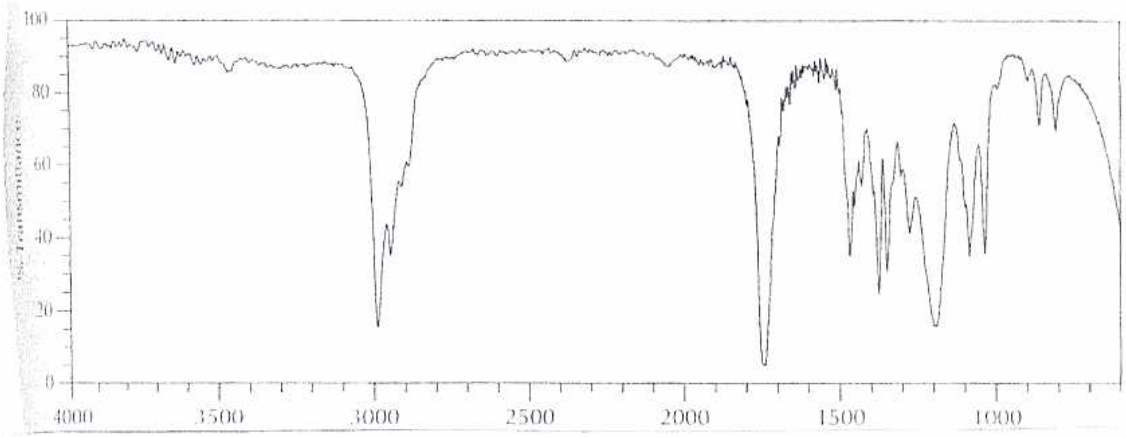
F.



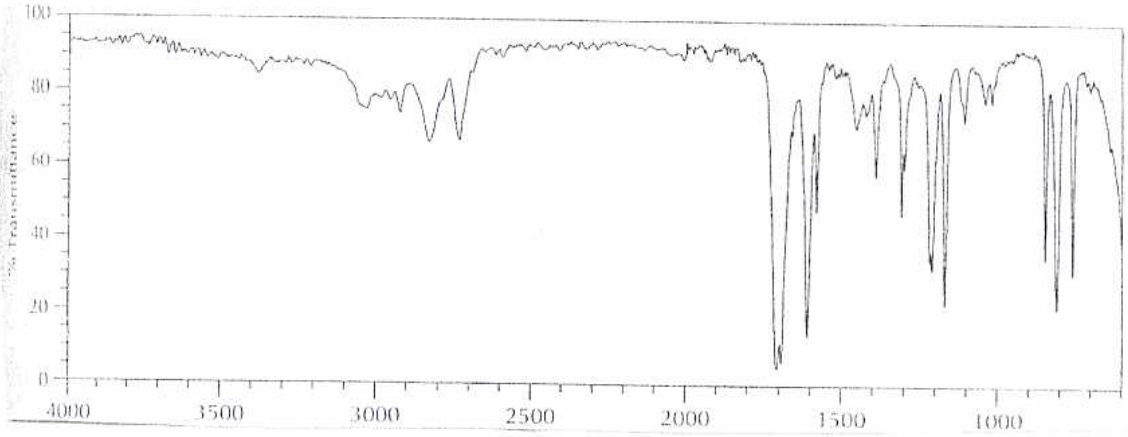
G.



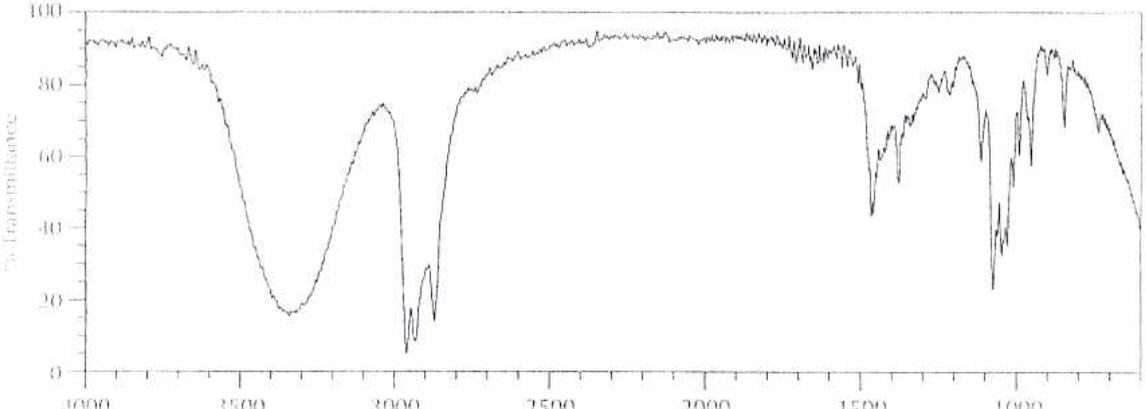
1. ____



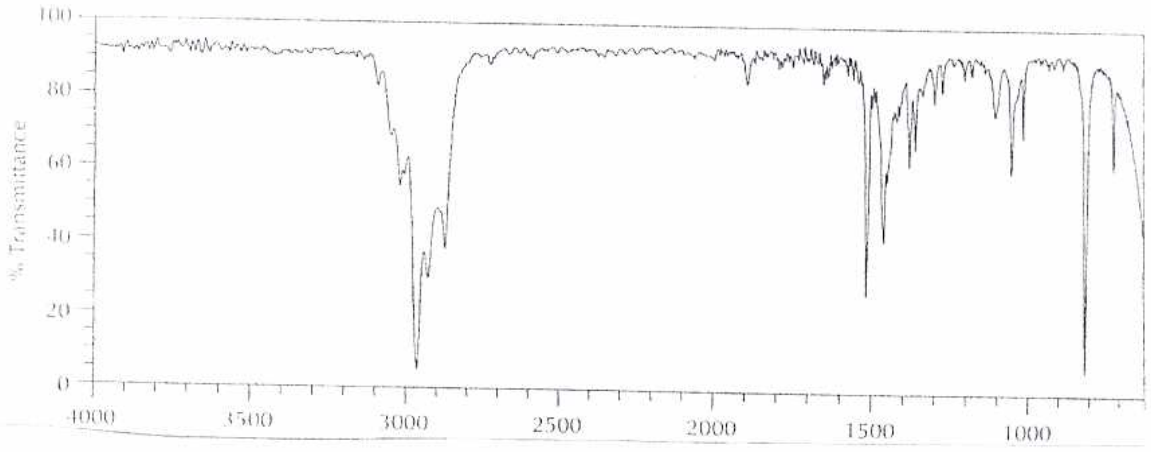
2. ____



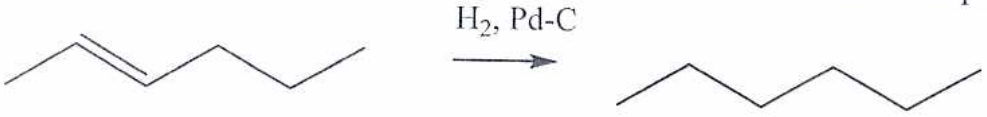
3. ____



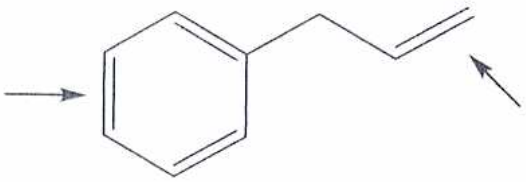
4. _____



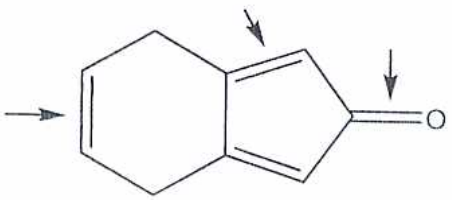
5. (3pts) How could IR be used to determine when this reaction is complete?



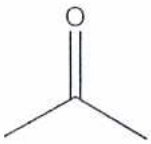
6. (3pts) Label each bond with the expected frequency of IR absorption, then explain the difference in frequency observed for the bond stretches:

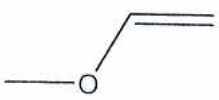


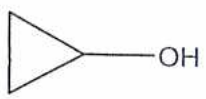
7. (3pts) Which of these bonds would show the most intense IR signal? Which would show the least intense signal?



8. (3pts) What is the frequency of the peak that distinguishes each of these isomers from the others?







frequency _____ cm^- frequency _____ cm^- frequency _____ cm^-