Organic Chemistry II, Pretest 1, 20102

Naming: Please provide the unambiguous name for each of the following structures or provide the structure for any of the following names. Include stereochemistry where appropriate.

Structure Name

p-chlorotoluene

$$O_2N$$
 O_2

trans-1-benzyl-3-phenylcyclopentane

Reactions: Fill in the major product or products. Many of these reactions have 2 major products.

1.

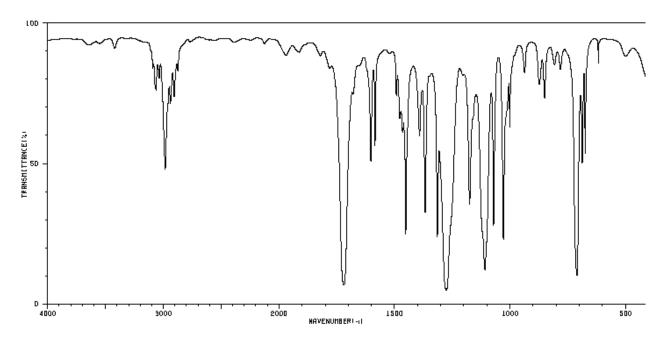
Which of the following is not aromatic? (Circle all that are not aromatic.)



Synthesis:

Spectroscopy: Please identify the structure of a compound with the formula $C_9H_{10}O_2$ and the following spectra.

IR:



NMR see next page

NMR Report Form

Formula:	$C_9H_{10}O_2$
SODAR ca	lculation:

Structure (Label non-equivalent hydrogens a, b, c....)

IR peaks

Wavelength (cm ⁻¹)	Bond

 \boldsymbol{NMR} : Be sure to include all effects on aromatic protons. (Shielding and deshielding)

Proton	Chemical shift	Deshielded by	Split by

