CHE 173

Winter, 2005

Quiz 7 Answer Key

Name____

Section: 201 202 203 204 205 206

 $M \quad T \quad W \quad Th \quad F \quad Th \; nt.$

(circle one)

1. Show the products that would form from each of the following reactions (10 pts).

(a)
$$+ ICH_2ZnI \xrightarrow{Et_2O} H$$
 $+ ZnI_2$

$$(b) \xrightarrow{\text{Mg}} \text{BrMg}$$

(c)
$$\left(\begin{array}{c} \\ \\ \end{array} \right)^{\text{CuLi}}_{2} + _{\text{Br}} \\ \begin{array}{c} \\ \\ \end{array}$$

(d)
$$\begin{array}{c} \text{1. 2CH}_3\text{MgBr} \\ & \xrightarrow{\text{Et}_2\text{O}} \\ \text{OCH}_3 & \text{2. H}_2\text{O, H}^+ \\ \end{array}$$

(e)
$$\begin{array}{c} O \\ \hline \\ & \\ \hline \\ & \\ \hline \\ & \\ \end{array} \begin{array}{c} 1. \text{ CH}_3 \text{Li} \\ \\ \text{Et}_2 \text{O} \\ \\ \\ \hline \\ \end{array} \begin{array}{c} \text{HO} \\ \\ \\ \\ \end{array} \begin{array}{c} \text{ }\\ \text{ }\\ \\ \end{array} \begin{array}{c} \text{ }\\ \text{ }\\ \\ \end{array} \begin{array}{c} \text{ }\\ \\ \end{array} \begin{array}{c} \text{ }\\ \\ \end{array} \begin{array}{c} \text{ }\\ \\ \\ \end{array} \begin{array}{c} \text{ }\\ \\ \end{array} \begin{array}{c} \text{ }\\ \\ \end{array} \begin{array}{c} \text{ }\\ \\ \\ \end{array} \begin{array}{c} \text{ }\\ \\ \end{array} \begin{array}{c} \text{$$

2. Provide the reagents and conditions that would effect each of the following steps (A-C) in the synthetic scheme shown below. (10 pts)

A
$$(3 \text{ pts})$$

B (3 pts)

C (4 pts)

A = CH_3COCI
AICI₃, 0 °C

B = CH_3CI
AICI₃, 0 °C

C = 1. CH_3MgBr
Et₂O
2. H O H

3. Show a reasonable retrosynthetic analysis and synthesis for each of the target compounds shown below (your starting materials may have no more than 6 carbons). (10 pts each)

Retrosyntheses: