

CHEM 2322

Test 4

Dr. Hale
Tu,Th 9:30-10:50

Name: _____

Sign below to acknowledge that you are aware of the penalty for violating the University's academic integrity policy.

Signature: _____

Score: Page 2: ____ (20)

Page 3: ____ (30)

Page 4: ____ (15)

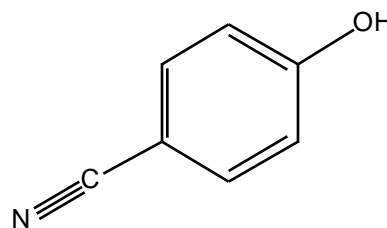
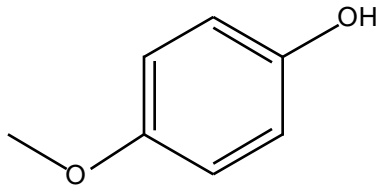
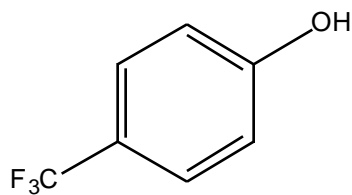
Page 5: ____ (15)

Page 6: ____ (10)

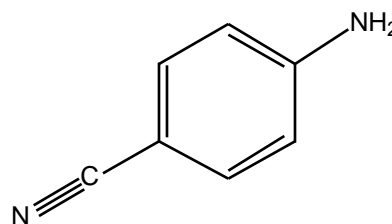
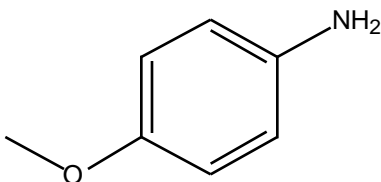
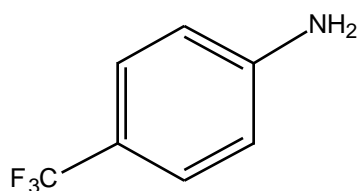
Page 7: ____ (10)

TOTAL: _____

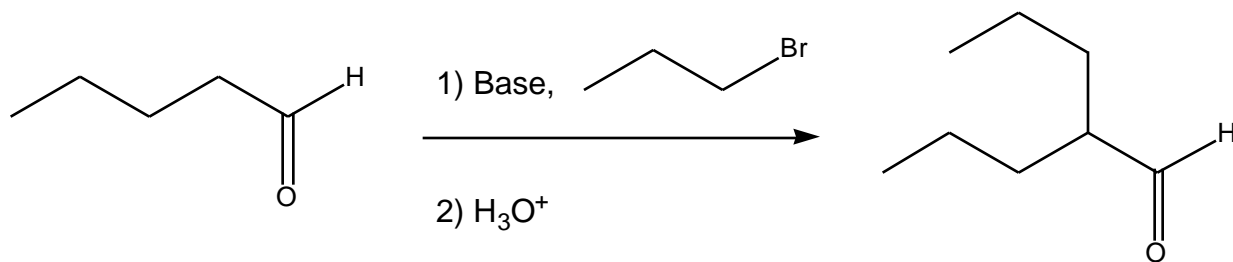
1) Which of the following compounds has the most acidic proton? (Circle it.) **5 Pts**



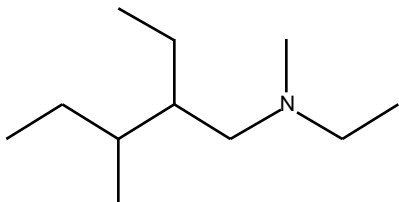
2) Which of the following compounds is the most basic? (Circle it.) **5 Pts**



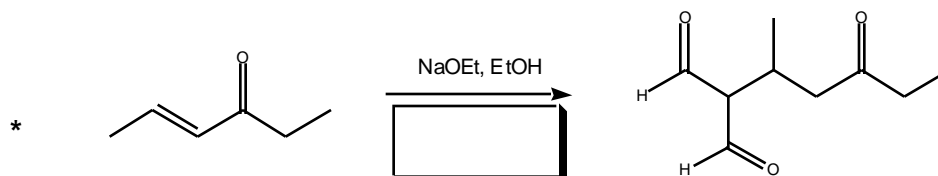
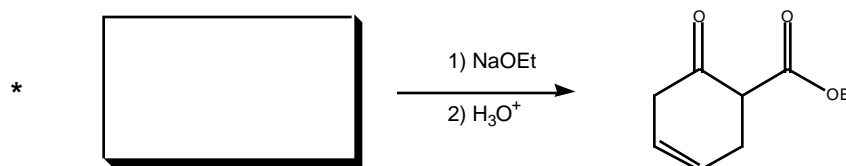
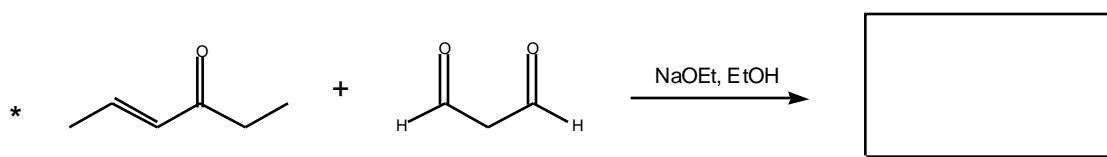
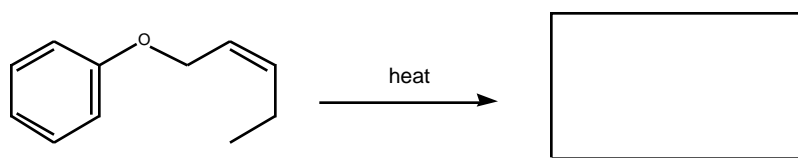
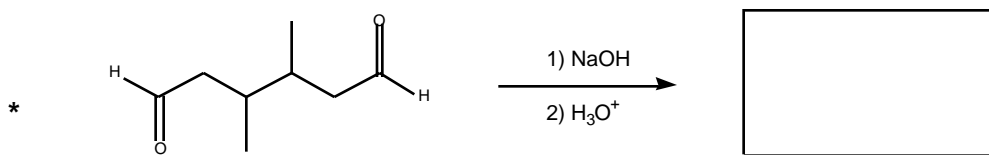
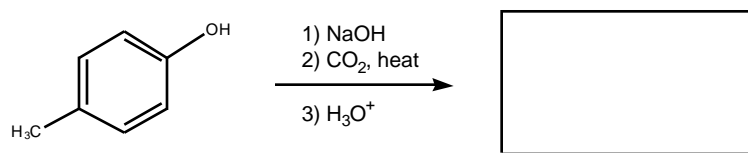
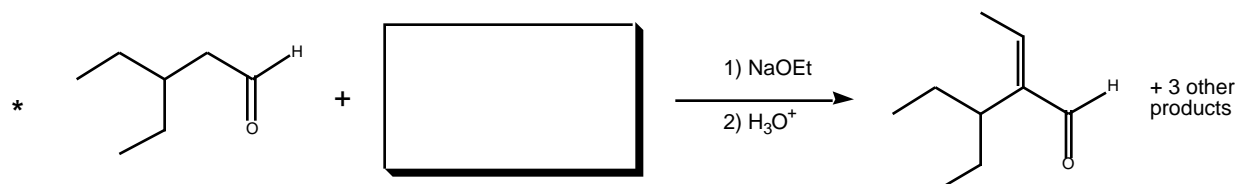
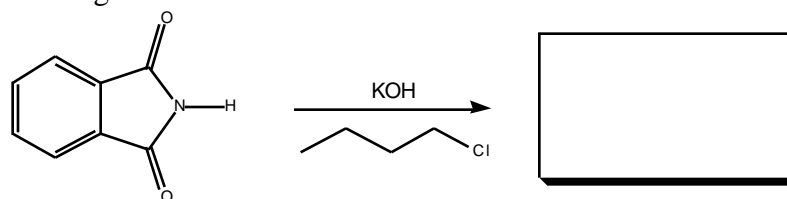
3*) Would you use NaOEt or LDA to carry out the following reaction? **5 Pts**



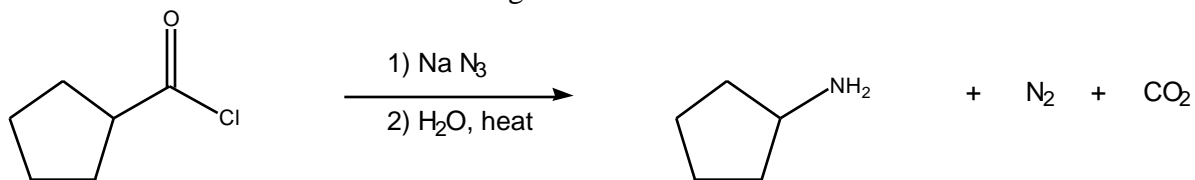
4) Name the following molecule. **5 Pts**



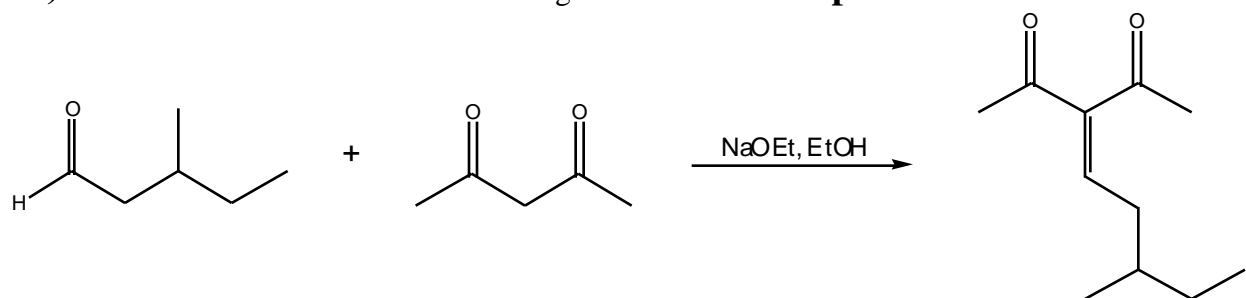
5) Complete the following reactions. 30 Pts



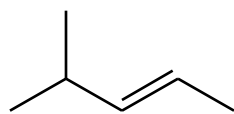
6) Show the mechanism for the following transformation. **15 Pts**



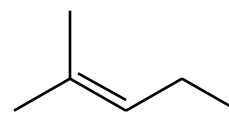
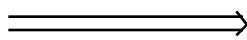
7*) Show the mechanism for the following transformation. **15 pts**



- 8) Devise a synthesis for the following molecule starting with the indicated compound and any reagents you would like. **10 pts**



(Target)



(Starting Material)

Chapter 23 relevant questions are marked with an *

- 9*) Devise a synthesis for the following molecule starting with any alcohols of 4 carbons or less as sources of carbon atoms and any reagents you would like. **10 Pts**

