



**XAVIER**  
UNIVERSITY of LOUISIANA

Xavier University of Louisiana  
**XULA Digital Commons**

---

Course Modules

Department of Chemistry

---

5-31-2019

# Organic Chemistry II Drill (CHEM2220D) Module 6. Part A. Sample B. Answer key

Candace M. Lawrence

Xavier University of Louisiana, [clawren2@xula.edu](mailto:clawren2@xula.edu)

Follow this and additional works at: [https://digitalcommons.xula.edu/doc\\_cm](https://digitalcommons.xula.edu/doc_cm)

 Part of the [Organic Chemistry Commons](#)

---

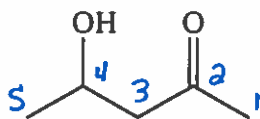
## Recommended Citation

Lawrence, Candace M., "Organic Chemistry II Drill (CHEM2220D) Module 6. Part A. Sample B. Answer key" (2019). *Course Modules*. 65.

[https://digitalcommons.xula.edu/doc\\_cm/65](https://digitalcommons.xula.edu/doc_cm/65)

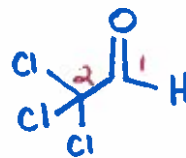
This Organic Chemistry II is brought to you for free and open access by the Department of Chemistry at XULA Digital Commons. It has been accepted for inclusion in Course Modules by an authorized administrator of XULA Digital Commons. For more information, please contact [ksiddell@xula.edu](mailto:ksiddell@xula.edu).

1. What is the IUPAC name of:

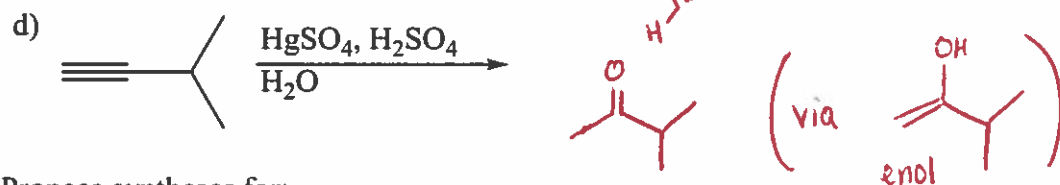
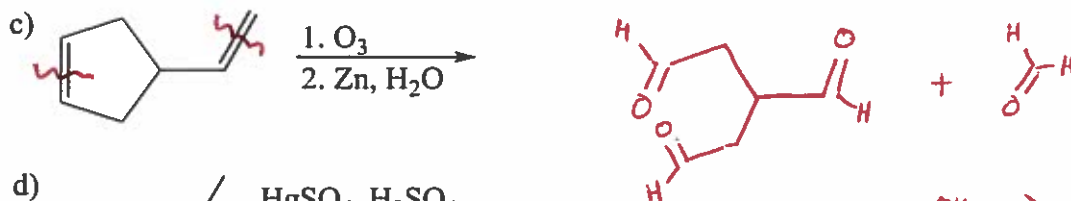
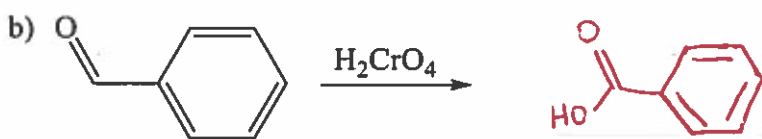
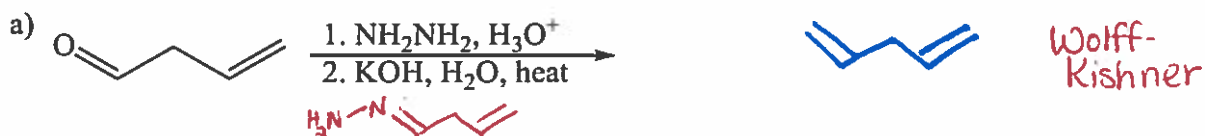


4-hydroxypentan-2-one

2. Draw the structure of:  
 2,2,2-trichloroacetaldehyde

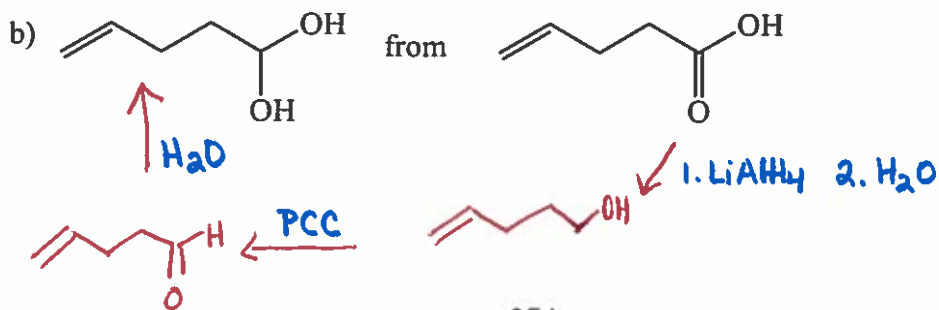
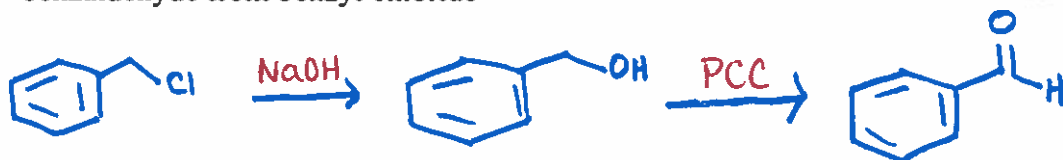


3. Predict the products of these reactions:

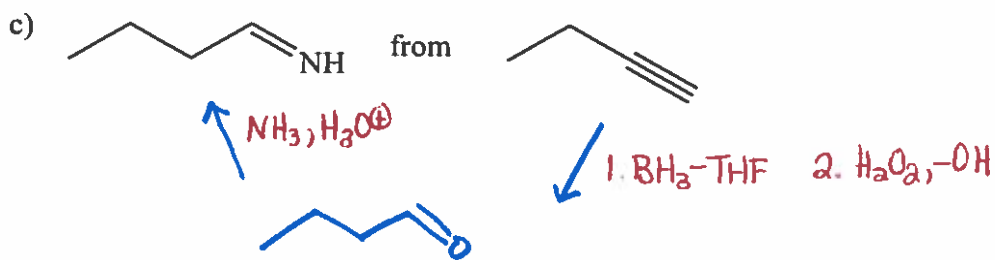


4. Propose syntheses for:

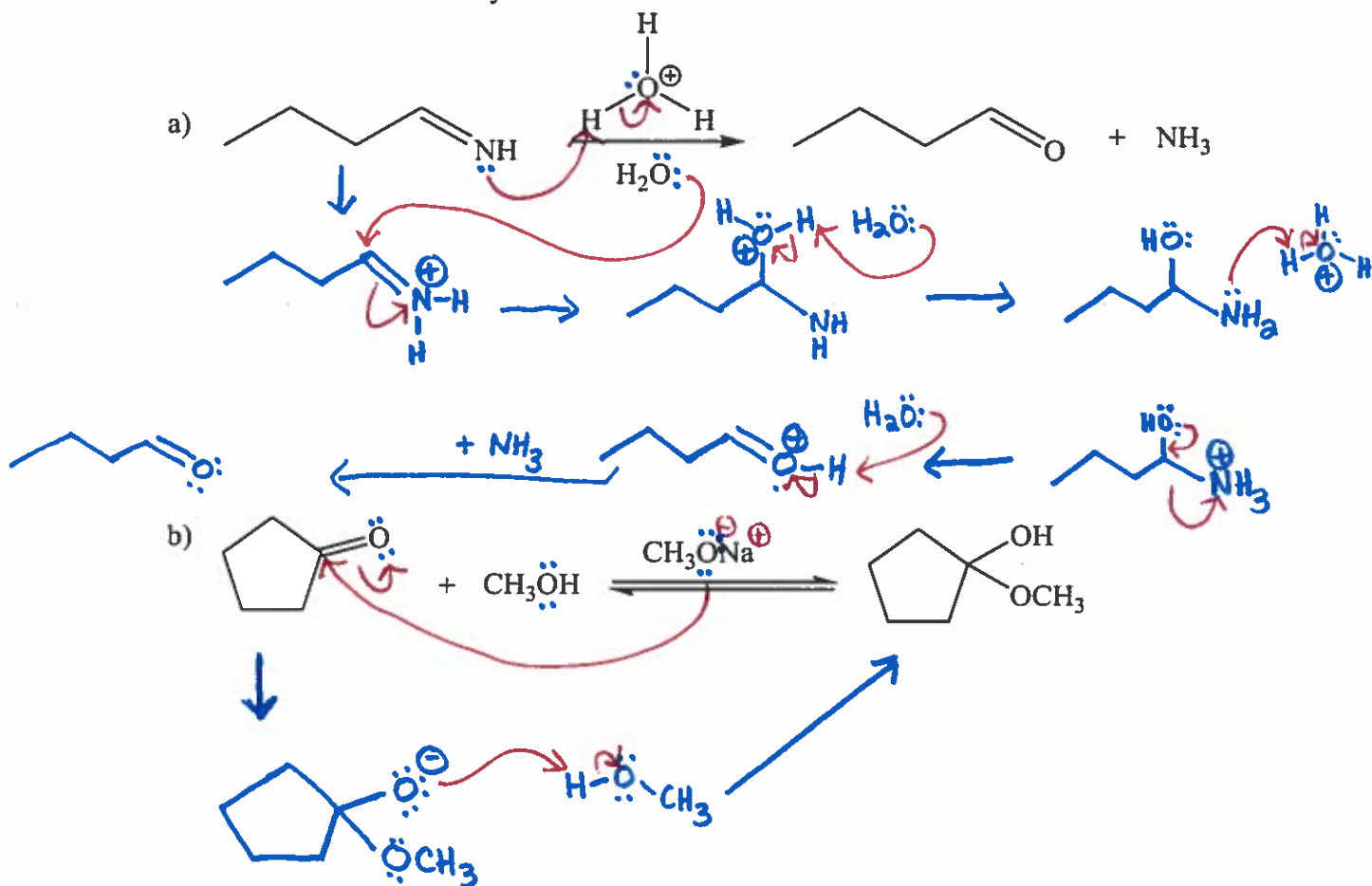
a) benzaldehyde from benzyl chloride



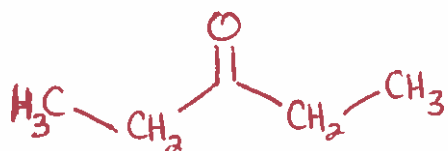
4.



5. Propose complete mechanisms for these reactions. Include all lone pairs, intermediates, and arrows where necessary.



6. Predict the IR and <sup>1</sup>H NMR spectra of 3-pentanone.



IR

C=O 1760 cm<sup>-1</sup>

sp<sup>3</sup>C-H 2900 cm<sup>-1</sup>

<sup>1</sup>H-NMR

2 x CH<sub>3</sub> 1.2 ppm triplet

2 x CH<sub>2</sub> 2.3 ppm quartet