

CHEM 341 Fall 2015 Test #4

Dr. Burns December 2015

120 points possible

Page # Points

2

3

4

5

6

7

8

9

10

11

Total pts _____



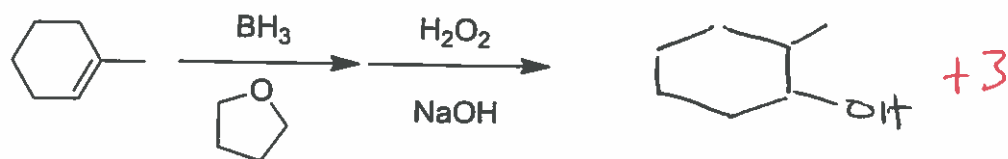
Signature:

Printed Name:

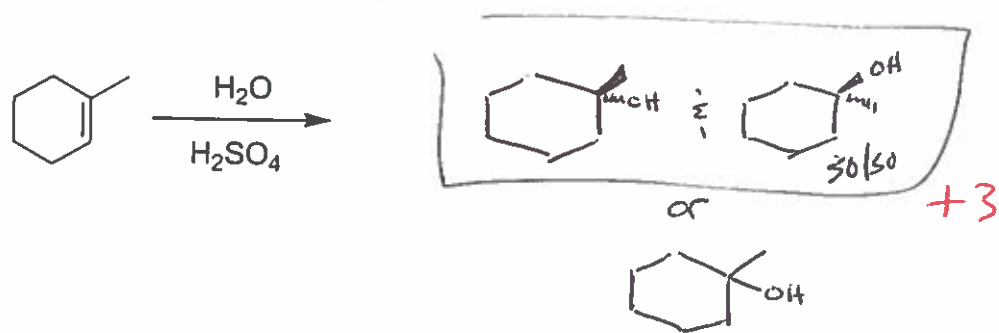
Section Number:

1) Give the major organic products for the following reactions. (12 pts)

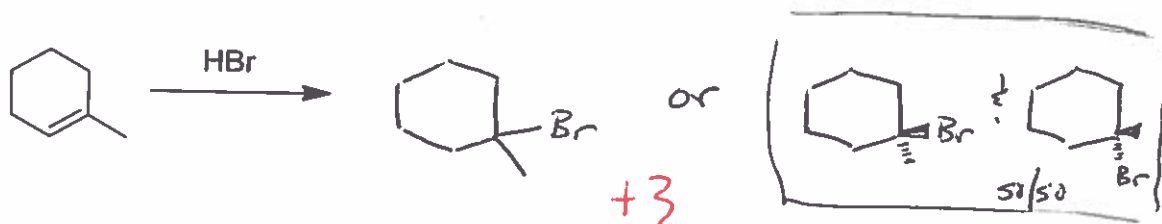
(a)



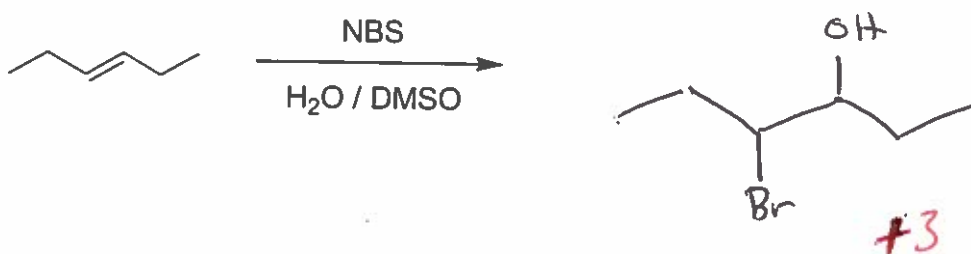
(b)



(c)

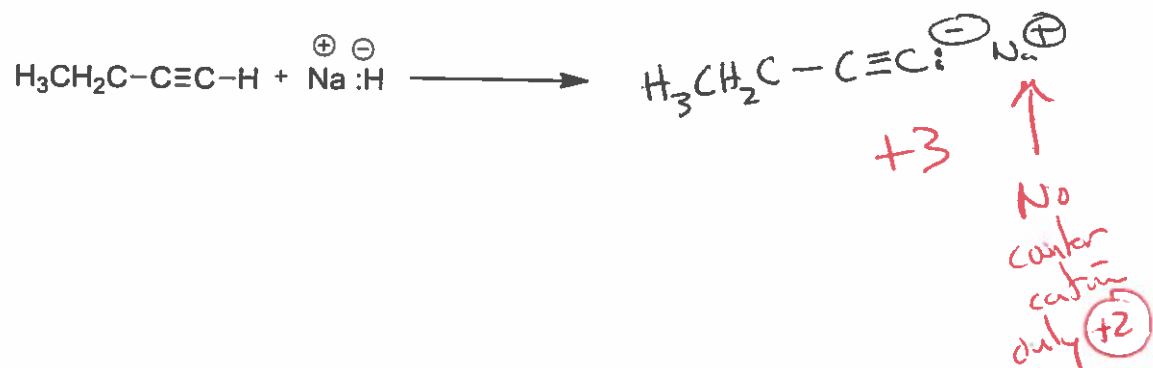


(d)

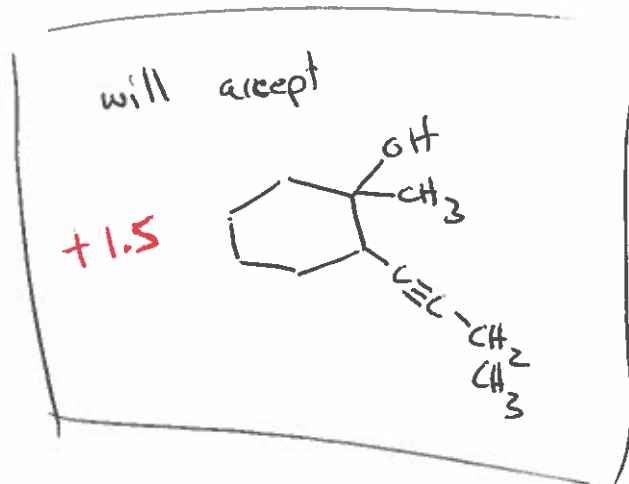
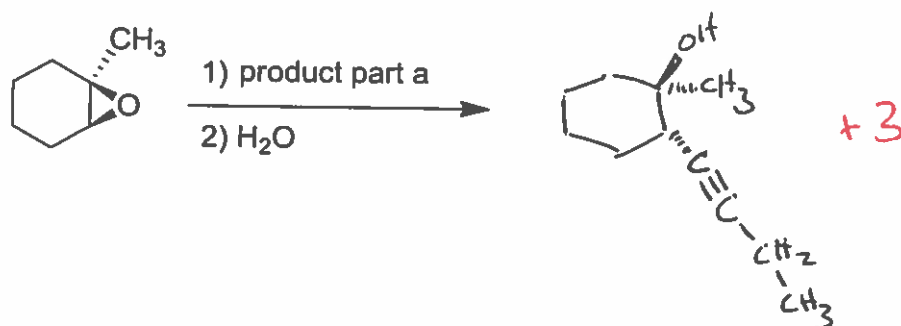


2) Give the major organic products for the following reactions. (6 pts)

(a)

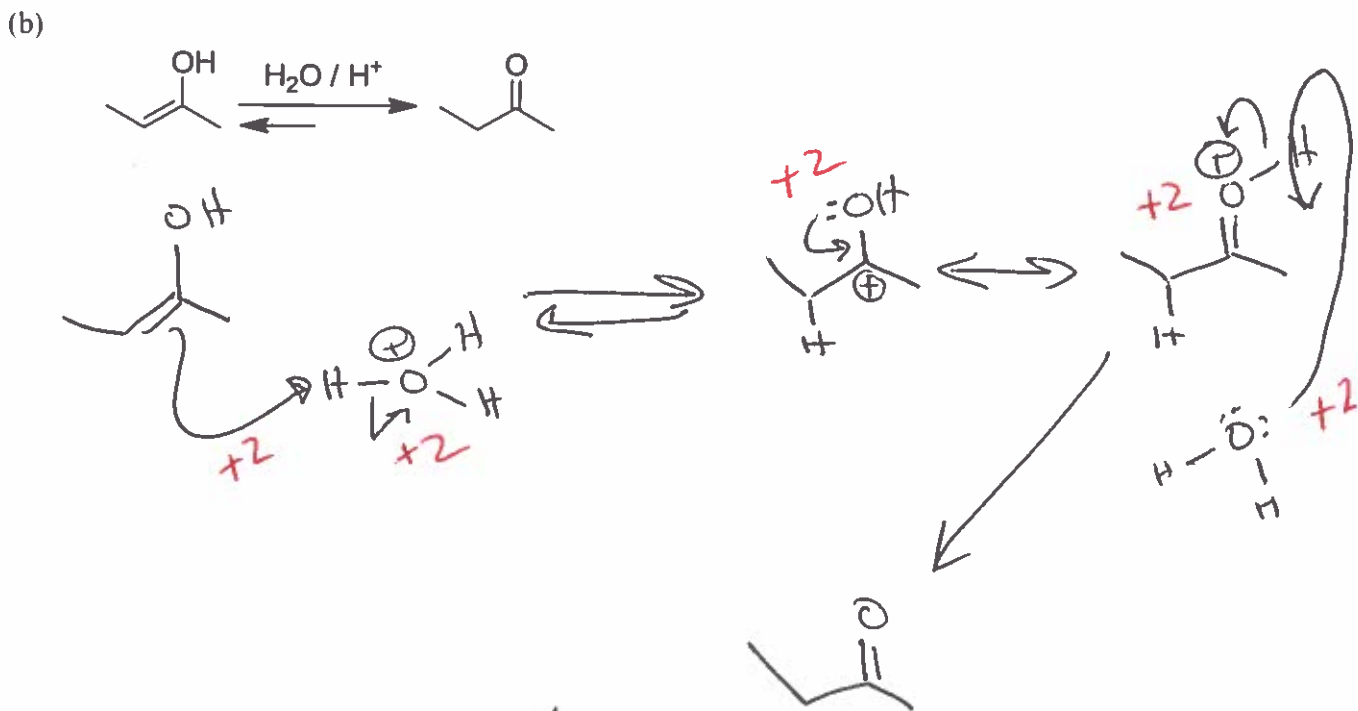
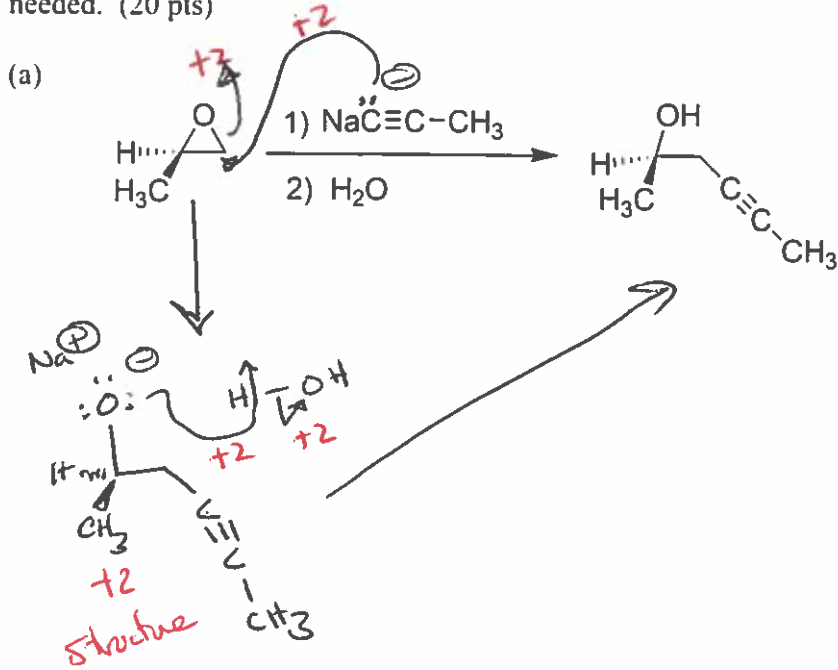


(b)



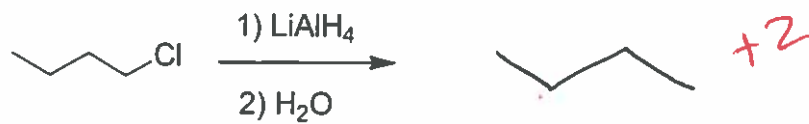
3) Mechanisms for twenty, please.

Give reasonable mechanisms for the two following reactions. A mechanism, as we know, is the step by step description of a reaction. Use curved arrows, orbitals, etc., as needed. (20 pts)



4) Give the major organic product(s) for the following reactions. (10 pts)

(a)



(b)



(c)



(d)



(e)



5) Give the major organic product(s) for the following reactions. (10 pts)

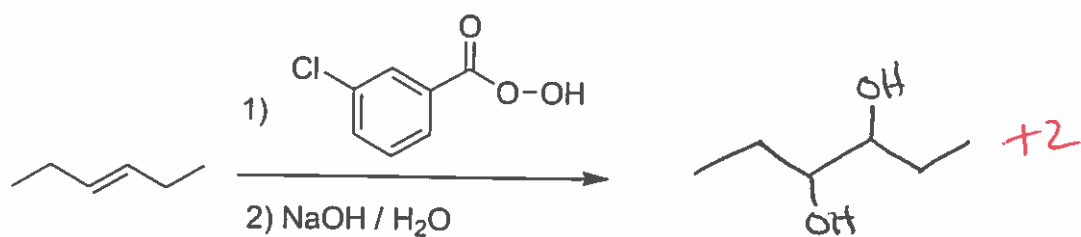
(a)



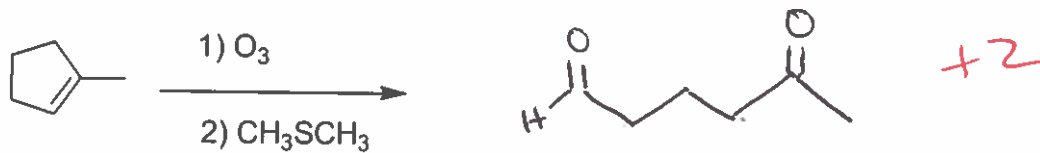
(b)



(c)



(d)

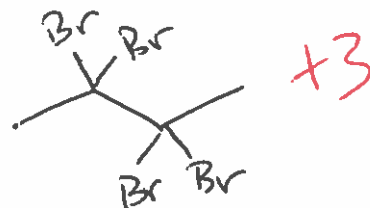
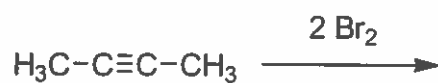


(e)

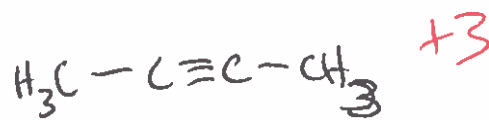
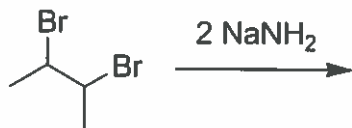


6) Give the major organic product(s) for the following reactions. (10 pts)

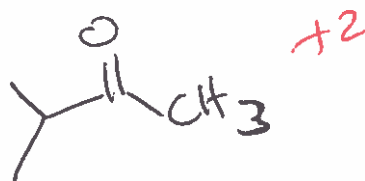
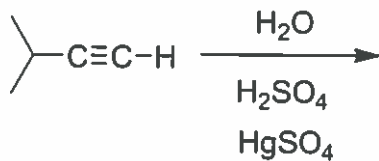
(a)



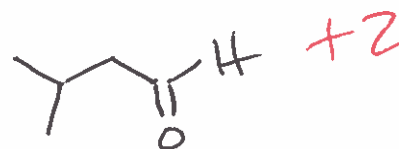
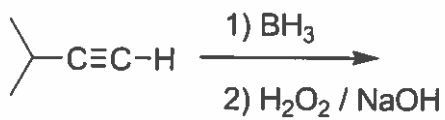
(b)



(c)

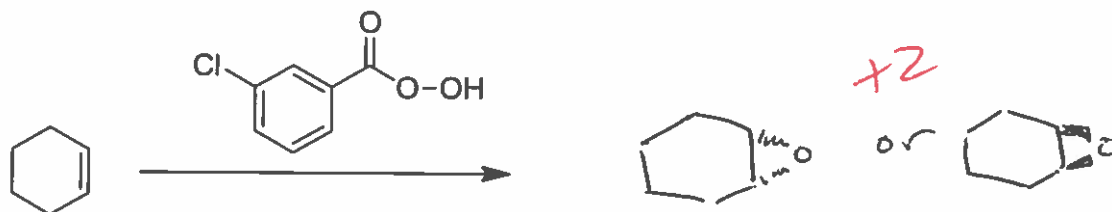


(d)

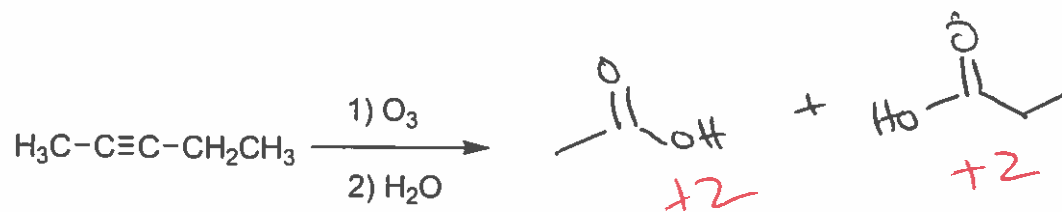


7) Give the major organic product(s) for the following reactions. (10 pts)

(a)



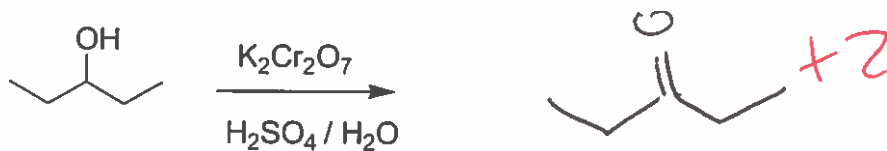
(b)



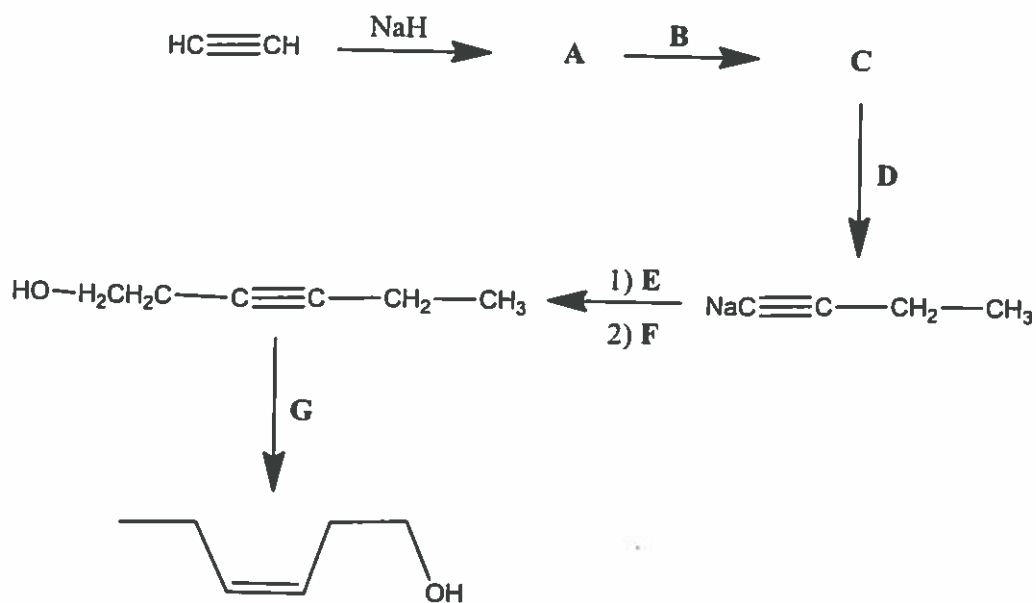
(c)




(d)



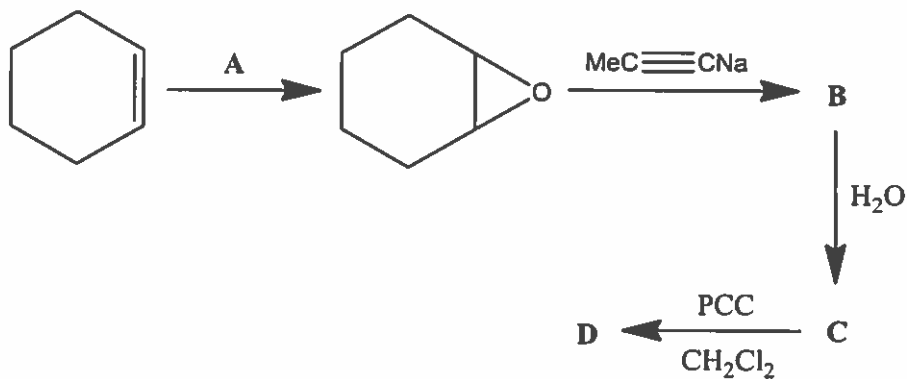
8) Fill in the missing reagents and/or products in the synthetic scheme outlined below. Place your answers in the table provided below. (21 pts)

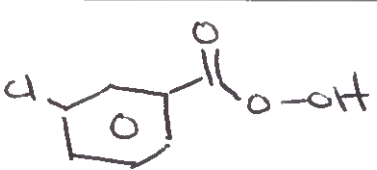
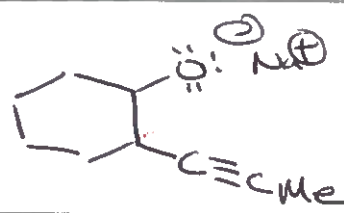
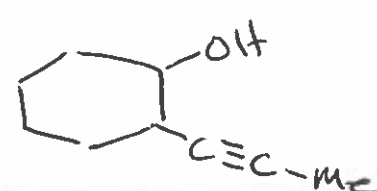
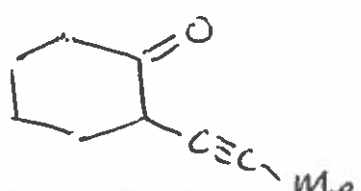


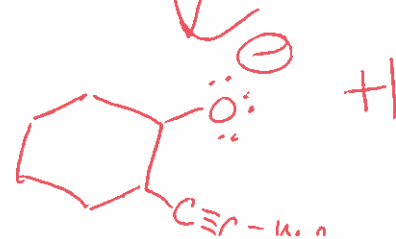
Letter	Missing Reagent/Product	Letter	Missing Reagent/Product
A	$\text{HC}\equiv\text{C}^- \text{Na}^+$ +3	E	 +3
B	$\text{CH}_3\text{CH}_2\text{Br}$ +3	F	H_2O +3
C	$\text{HC}\equiv\text{C}-\text{CH}_2\text{CH}_3$ +3	G	$\text{H}_2/\text{Lindlar Catalyst}$ +3
D	NaH +3		

~~NAH~~

9) Fill in the missing reagents and/or products in the synthetic scheme outlined below. Place your answers in the table provided below. (8 pts)



Letter	Missing Reagent/Product
A	MCPBA or  +2
B	 +2
C	 +2
D	 +2



10) Mechanisms for twelve, please.

Give a reasonable mechanism for the following reaction. A mechanism, as we know, is the step by step description of a reaction. Use curved arrows, orbitals, etc., as needed. (13 pts)

