

Chemistry 2542, Fall 2016

Quiz 2

(30 points)

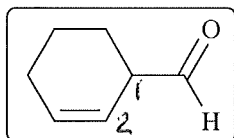
Key

Important notes:

- Please use the provided Scantron form for your answers; you can keep the sheet with the questions and can use it as scratch paper
- Do not forget to write your name on the Scantron form
- You will not receive credit for unmarked answers or for more than one mark on answer line
- Your scores will be posted on eGradebook; graded Scantron forms will not be returned to students.

Questions 1-10: Please mark the appropriate box on the front of the Scantron form (3 pts each).

1. What is the correct **name** for the compound shown in the box?



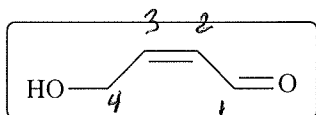
A) 1-cyclohexenecarbaldehyde

B) 2-cyclohexenecarbaldehyde

C) 1-cyclohexenal

D) benzaldehyde

2. What is the **IUPAC name** for the compound shown in the box?



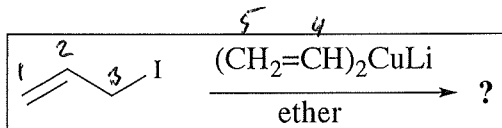
A) (E)-4-hydroxy-2-butenal

B) (Z)-4-hydroxy-2-butenal

C) (E)-4-oxo-2-butenol

D) (Z)-4-oxo-2-butenol

3. What is the **main product** of the reaction shown in the box?

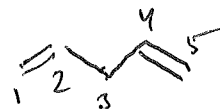


A) 1,4-pentadiene

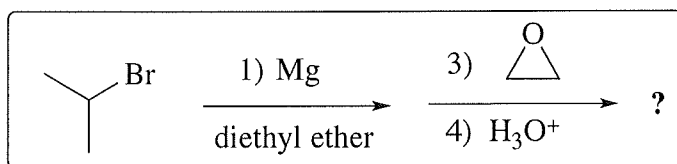
B) 1,3-butadiene

C) 1,3-pentadiene

D) 1-butene



4. What is the **main product** of the sequence of reactions shown in the box?

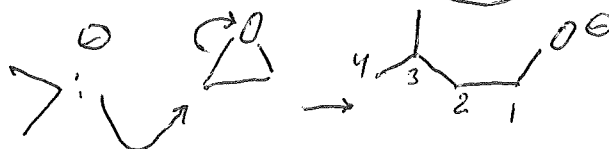


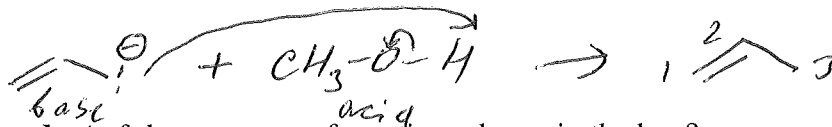
A) 3-methyl-2-butanol

B) 3-methyl-1-butanol

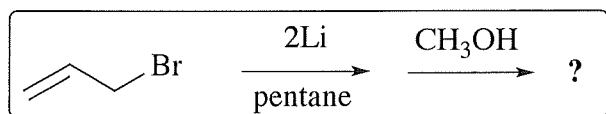
C) 3-methyl-2-butanol

D) 3-methylbutanal



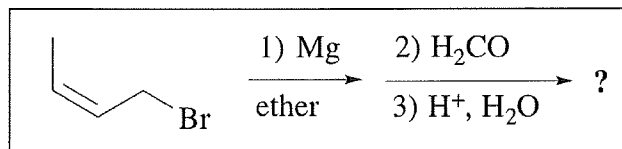


5. What is the **main product** of the sequence of reactions shown in the box?

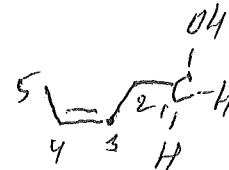


- A) 1-butene B) 3-methoxy-1-propene
C) 1-propen-3-ol **D) 1-propene**

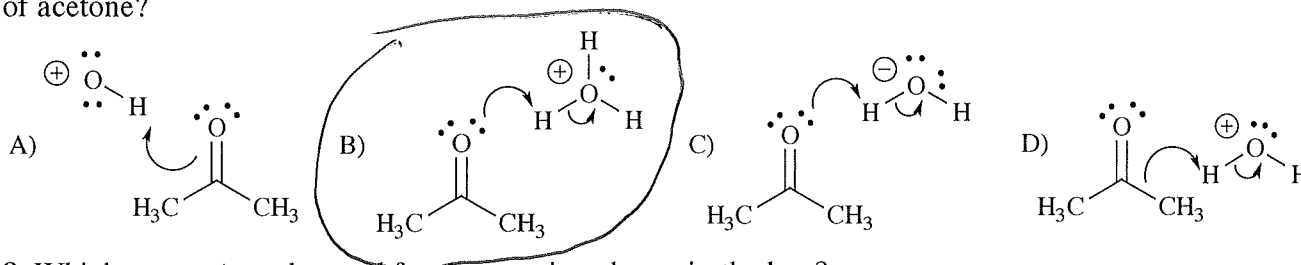
6. What is the **main product** of the sequence of reactions shown in the box?



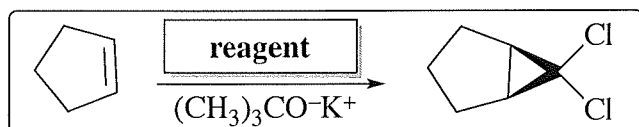
- A) (Z)-3-hexen-2-ol B) (E)-3-hexen-2-ol
C) (Z)-3-penten-1-ol D) (E)-3-penten-1-ol



7. Which of the following drawings correctly describes the movement of electrons during the **protonation** of acetone?

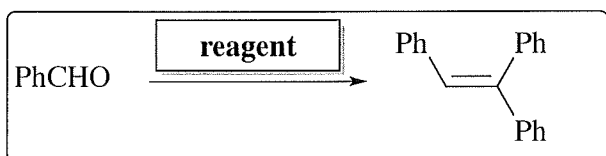


8. Which **reagent** can be used for the reaction shown in the box?



- A) CH_2I_2 **B) CHCl_3** C) $\text{Zn}(\text{Cu})$ D) CH_2Cl_2

9. Which **reagent** can be used for the reaction shown in the box?



- A) $\text{O}=\text{C}(\text{Ph})_2$ B) Ph_3P C) $\text{Zn}(\text{Cu})$ **D) $\text{Ph}_3\text{P}^+-\text{CPh}_2^-$**

10. Which of the following correctly describes the direction of **polarity** of the carbon-lithium bond?

- A) $\text{H}_3\text{C}^{\delta+}-\text{Li}^{\delta+}$ B) $\text{H}_3\text{C}^{\delta-}-\text{Li}^{\delta-}$ **C) $\text{H}_3\text{C}^{\delta-}-\text{Li}^{\delta+}$** D) $\text{H}_3\text{C}^{\delta+}-\text{Li}^{\delta-}$