

King Saud University

Name:

College of Science

ID :

Chemistry Department

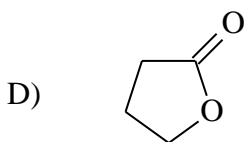
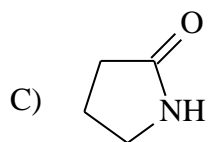
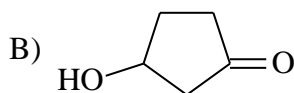
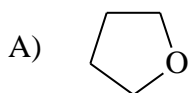
245 Chem – Organic Chemistry II

1<sup>st</sup> med-term exam – 2<sup>nd</sup> semester 1445

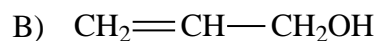
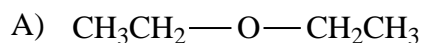
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Choose the correct answer for each of the following questions: -

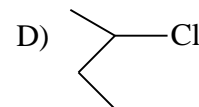
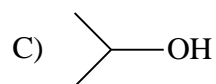
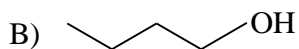
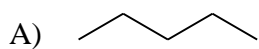
1- Which of the following compounds is cyclic ether?



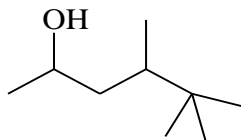
2- Which of the following molecules is the **LEAST** soluble in water?



3- Which of the following molecules has the **HIGHEST** boiling point?



4- What is the IUPAC name of the following molecule?

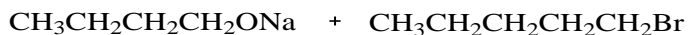


- A) 4,5,5-Trimethyl-2-hexanol  
 B) 2,2,3-Trimethyl-5-hexanol  
 C) 1,1,1,2-Tetramethyl-4-pentanol  
 D) 4,5,5,5-Tetramethyl-2-pentanol

5- Which of these cycloalkanes shows cis-trans isomerism?

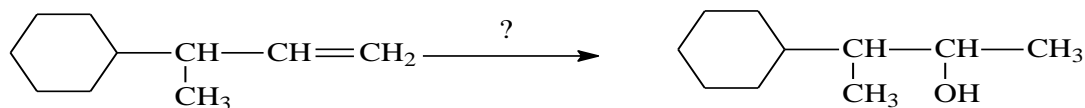


6- What are the major organic products of the reaction below?



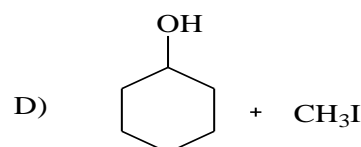
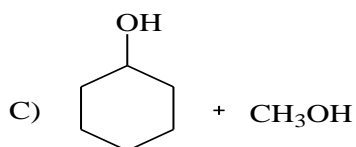
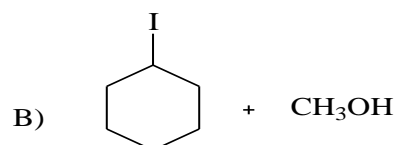
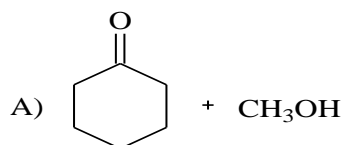
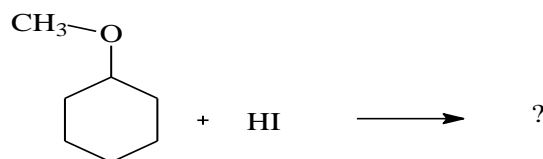
- A)  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OH} + \text{CH}_3\text{CH}_2\text{CH}_2\text{CH}=\text{CH}_2$   
 B)  $\text{CH}_3\text{CH}_2\text{CH}=\text{CH}_2 + \text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$   
 C)  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{CH}_2\text{CH}_3$   
 D)  $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{CH}_2\text{CH}_3$

7- Which of the following sets of reagents can be used to bring about the reaction below?

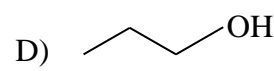
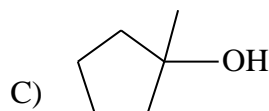
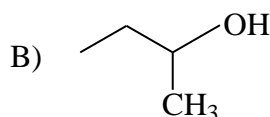
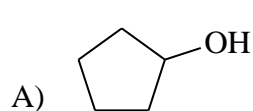


- A)  $\text{CrO}_3 / \text{H}_2\text{SO}_4$   
 B)  $\text{BH}_3, \text{H}_2\text{O}_2, \text{NaOH}$   
 C)  $\text{H}_2\text{O} / \text{H}^{\oplus}$   
 D)  $\text{Cu} / \Delta$

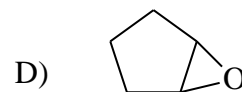
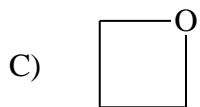
8- What are the major organic products of the following reaction?



9- The compound that is LEAST reactive toward  $\text{HCl} / \text{ZnCl}_2$  is:



10- The compound cyclobutene oxide has the structure:



11- Transformation of an Alcohol to Aldehyde is called:

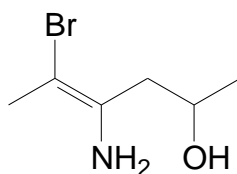
A) Reduction

B) Addition reaction

C) Elimination reaction

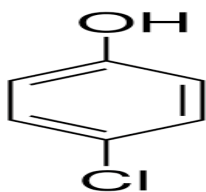
D) Oxidation

12- The IUPAC name of the following compound is:



- A) cis-4-Amino-5-bromo-4-hexene-2-ol
- B) trans-4-Amino-5-bromo-4-hexene-2-ol
- C) trans-3-Amino-2-bromo-2-hexene-5-ol
- D) trans-4-Amino-5-bromo-4-heptene-2-ol

13- The IUPAC name of the following compound is:



- A) m-Chlorophenol
- B) 4-Chlorobenzenol
- C) 4-Chlorobenzoic acid
- D) 4-Chlorophenol

**14- Reaction of Grignard reagent with ketones gives:**

- A) Ethers      B) Primary alcohols      C) Secondary alcohols      D) Tertiary alcohols

**15- Oxidation of cyclohexene with  $\text{RCO}_3\text{H}$  then  $\text{H}_3\text{O}^+$  gives:**

