

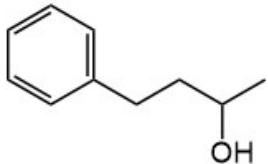
**CHM3150 Organic Chemistry II**  
**Dr. Laurie S. Starkey, Cal Poly Pomona**  
**Chapter 12 Alcohols Part 1 – Practice Problems**



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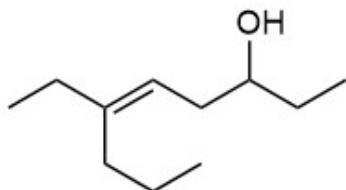
Provide the IUPAC name for the following compound.

**1**

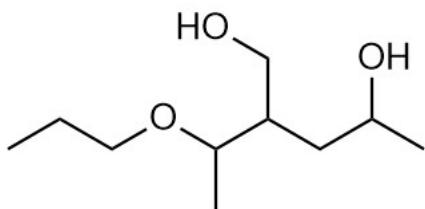


**2**

Provide the IUPAC name for the following compound.



**3**



Match the given compound with its correct common name.

$\text{CH}_3\text{CHOHCH}_3$	$(\text{CH}_3)_2\text{CHCH}_2\text{OH}$	$(\text{CH}_3)_3\text{COH}$
A) isopropyl alcohol	<i>n</i> -butyl alcohol	isobutyl alcohol
B) <i>n</i> -propyl alcohol	<i>tert</i> -butyl alcohol	<i>sec</i> -butyl alcohol
C) isopropyl alcohol	isobutyl alcohol	<i>tert</i> -butyl alcohol
D) <i>n</i> -propyl alcohol	<i>n</i> -butyl alcohol	<i>tert</i> -butyl alcohol
E) isopropyl alcohol	<i>tert</i> -butyl alcohol	isobutyl alcohol

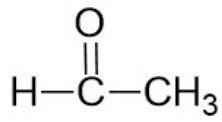
4 Arrange the given species in the order of INCREASING boiling point (from lowest bp to highest bp).



I

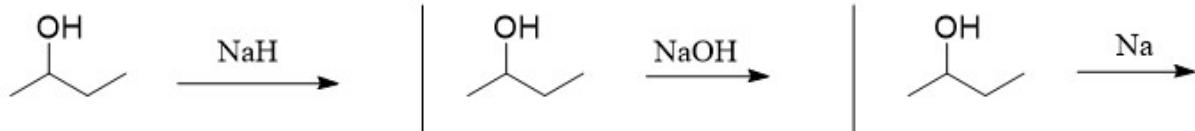


II



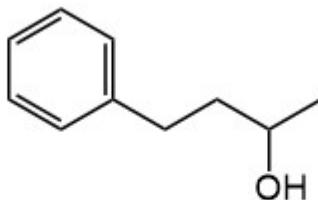
III

5 Predict the major products for the following reactions (or N/R).



1

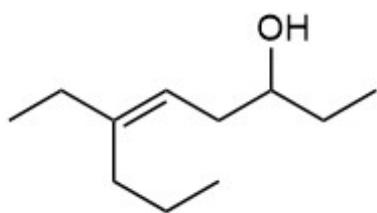
Provide the IUPAC name for the following compound.



- A) 1-phenyl-3-butanol
- B) 1-phenyl-3-pentanol
- C) 4-phenyl-2-butanol
- D) 5-phenyl-2-pentanol
- E) 1-methyl-3-phenyl-1-propanol

2

Provide the IUPAC name for the following compound.



- A) 5-ene-6-propyl-3-octanol
- B) 6-propyloct-5-en-3-ol
- C) 3-propyloct-3-en-6-ol
- D) 6-ethylnon-5-en-3-ol
- E) 5-ene-6-ethyl-3-nonanol

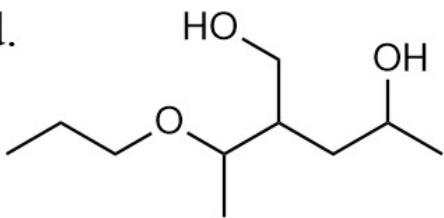
A) (E)

B) (Z)

C) no stereochem.

**3**

Provide the IUPAC name  
for the following compound.



Identify the correct parent name.

- A) 2,4-hexanediol
- B) 3,5-hexanediol
- C) 2,4-nonanediol
- D) 1,4-pentanediol
- E) 1,4-butanediol

Identify the correct substituent(s).

- A) 2,2-ethylpropoxy
- B) 2-ethyl-2-propoxy
- C) 2-(2-propoxyethyl)
- D) 2-(1-propylethoxy)
- E) 2-(1-propoxyethyl)

**4**

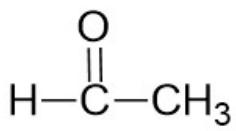
Arrange the given species in the order of INCREASING  
boiling point (from lowest bp to highest bp).



I



II

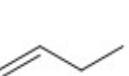
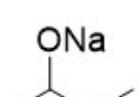
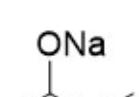
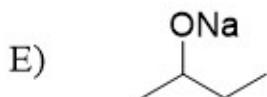
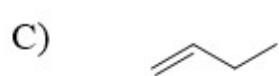
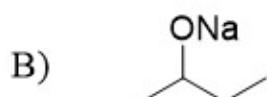
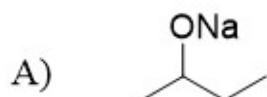
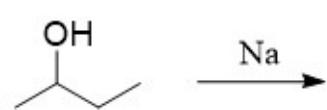
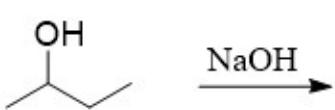
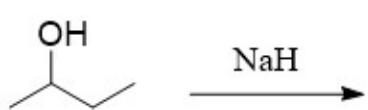


III

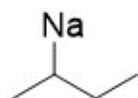
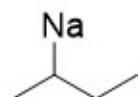
- A) I < II < III
- B) II < I < III
- C) I < III < II
- D) II < III < I
- E) III < II < I

5

Predict the major products for the following reactions (or N/R).



No Reaction



No Reaction

