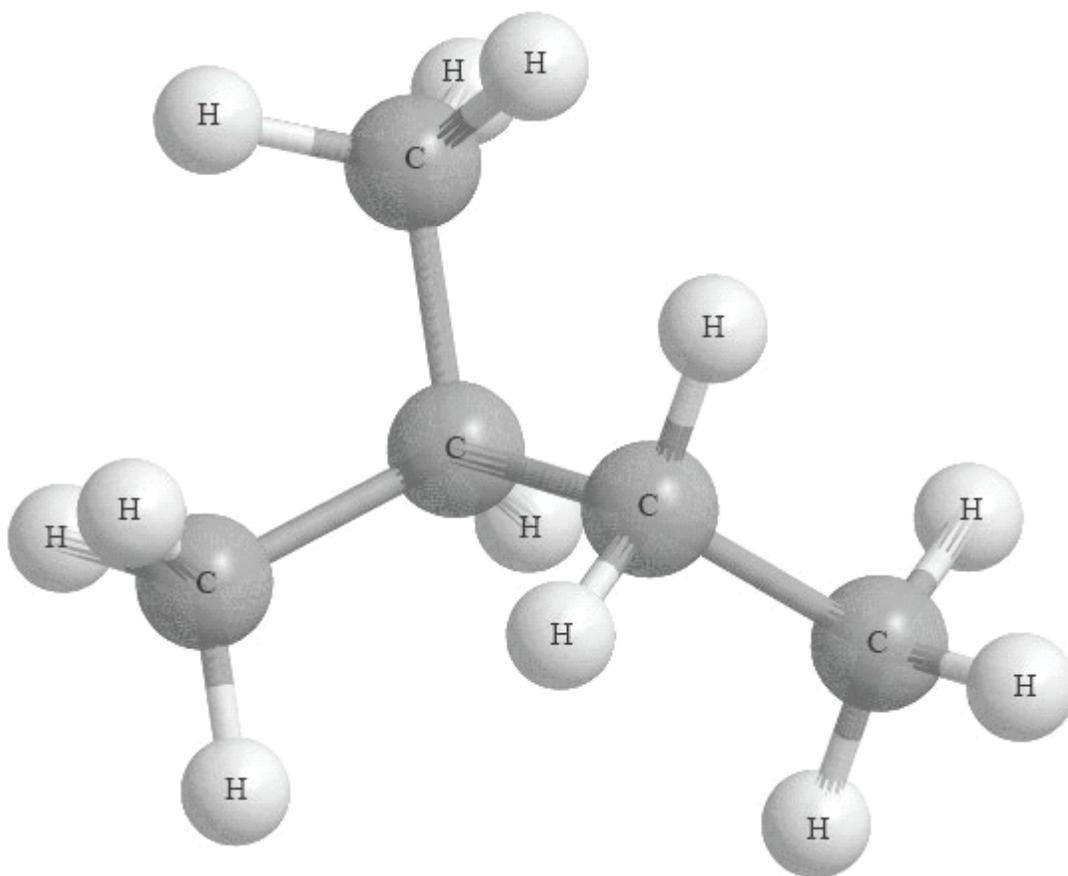


OChem Practice (II)

1. What is the final product formed when $\text{CH}_3\text{CH}_2\text{OH}$ is refluxed with acidified potassium dichromate(VI)?
 - A. CH_3CHO
 - B. CH_2CH_2
 - C. CH_3COOH
 - D. HCOOCH_3

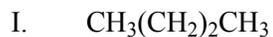
2. The following is a three-dimensional representation of an organic molecule.



Which statement is correct?

- A. The correct IUPAC name of the molecule is 1,1-dimethylpropane.
- B. All the bond angles will be 90° .
- C. One isomer of this molecule is pentane.
- D. The boiling point of this compound would be higher than that of pentanol.

3. Which formulas represent butane or its isomer?



A. I and II only

B. I and III only

C. II and III only

D. I, II and III

4. Which statement about neighboring members of all homologous series is correct?

A. They have the same empirical formula.

B. They differ by a CH_2 group.

C. They possess different functional groups.

D. They differ in their degree of unsaturation.

5. Which type of compound can be made in one step from a secondary alcohol?

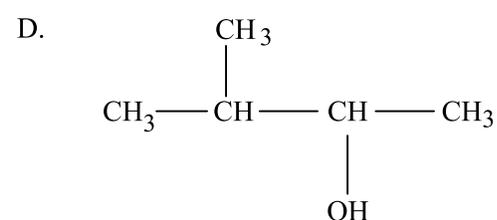
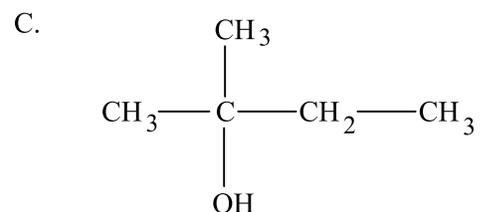
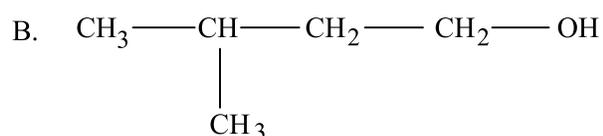
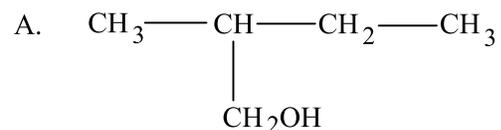
A. an aldehyde

B. an alkane

C. a carboxylic acid

D. a ketone

6. Which formula represents a tertiary alcohol?



7. Which compound is a tertiary halocarbon?
- A. $(\text{CH}_3\text{CH}_2)_2\text{CHBr}$
 - B. $\text{CH}_3(\text{CH}_2)_3\text{CH}_2\text{Br}$
 - C. $(\text{CH}_3)_2\text{CHCH}_2\text{CH}_2\text{Br}$
 - D. $\text{CH}_3\text{CH}_2\text{C}(\text{CH}_3)_2\text{Br}$
8. Which type of reaction converts a halocarbon into an alcohol?
- A. nucleophilic substitution
 - B. electrophilic substitution
 - C. electrophilic addition
 - D. nucleophilic addition
9. Which substance is **not** readily oxidized by acidified potassium dichromate(VI) solution?
- A. 1-propanol
 - B. 2-propanol
 - C. propanal
 - D. propanone
10. Propane, C_3H_8 , undergoes incomplete combustion in a limited amount of air. Which products are most likely to be formed during this reaction?
- A. Carbon monoxide and water
 - B. Carbon monoxide and hydrogen
 - C. Carbon dioxide and hydrogen
 - D. Carbon dioxide and water
11. What is the reaction type when $(\text{CH}_3)_3\text{CBr}$ reacts with aqueous sodium hydroxide to form $(\text{CH}_3)_3\text{COH}$?
- A. Addition
 - B. Elimination
 - C. $\text{S}_{\text{N}}1$
 - D. $\text{S}_{\text{N}}2$

12. Which of the following products could be formed during the oxidation of ethanol?

I. ethanal

II. ethanoic acid

III. ethane

A. I and II only

B. I and III only

C. II and III only

D. I, II and III

13. Which are characteristics typical of a free radical?

I. It has a lone pair of electrons.

II. It can be formed by the homolytic fission of a covalent bond.

III. It does not contain a positive or negative charge.

A. I and II only

B. I and III only

C. II and III only

D. I, II and III

14. What is/are the product(s) of the reaction between ethene and hydrogen bromide?

A. $\text{CH}_3\text{CH}_2\text{Br}$

B. $\text{CH}_3\text{CH}_2\text{Br}$ and H_2

C. $\text{CH}_2\text{BrCH}_2\text{Br}$

D. $\text{CH}_3\text{BrCH}_2\text{Br}$ and H_2