Aldehydes & Ketones — Practice Worksheet

Name: _____ Date: _____

Directions: Select the best answer for Questions 1–8. For Questions 9–10, explain your reasoning using chemical structures, reagents or electron-flow ideas where useful.

1. Which structure contains an aldehyde?

A. CH_3COCH_3
B. CH_3CH_2CHO
C. CH_3COOH
D. CH_3COOCH_3

Answer: _____

2. How is $CH_3COCH_2CH_3$ named?

A. Butanal
B. Butan-2-one
C. Butanoic acid
D. Propanone

Answer: _____

3. Which atom is the main electrophilic site of a simple ketone?

A. Carbonyl oxygen
B. Carbonyl carbon
C. Alpha hydrogen
D. Both methyl carbons

Answer: _____

4. Which carbonyl compound is usually less hindered during nucleophilic attack?

A. Propanone
B. Ethanal
C. Diisopropyl ketone
D. Cyclohexanone

Answer: _____

5. Which is a ketone?

A. HCHO
B. CH_3CHO
C. CH_3COCH_3
D. HCOOH

Answer: _____

6. What is the suffix usually used for an aldehyde?

A. -ol
B. -al
C. -one
D. -oate

Answer: _____

7. Which molecule is butanal?

A. $CH_3CH_2CH_2CHO$
B. $CH_3COCH_2CH_3$
C. CH_3CH_2COOH
D. CH_3OCOCH_3

Answer: _____

8. In the C=O bond, the oxygen is generally:

A. δ^+
B. δ^-
C. neutral with identical electronegativity
D. A leaving chloride

Answer: _____

9. What makes a ketone different from an aldehyde?

_____

_____

_____

10. Which is usually more reactive toward simple nucleophilic addition, ethanal or propanone?

_____

_____

_____