

Aldehydes and Ketones Chemistry

Chemistry · Practice Test · 15 Questions

1. What functional group do both aldehydes and ketones contain?

- A) Hydroxyl group
- B) Carbonyl group
- C) Carboxyl group
- D) Ester group

2. Where is the carbonyl group located in an aldehyde?

- A) At the end of a carbon chain
- B) In the middle of a carbon chain
- C) Attached to a nitrogen atom
- D) It is not part of a chain

3. How are aldehydes prepared?

- A) Reduction of ketones
- B) Oxidation of primary alcohols
- C) Reaction of alkanes
- D) Hydrolysis of esters

4. What is the suffix used when naming aldehydes?

- A) -one
- B) -ol
- C) -al
- D) -oic

5. In the IUPAC name for aldehydes, why is it not necessary to number the position of the functional group?

- A) It is always terminal
- B) It is always in the middle
- C) The chain is too short
- D) It is always on carbon 2

6. What is the condensed structural formula for the aldehyde group?

- A) -OH
- B) -CHO
- C) -COOH
- D) -CO-

7. If a molecule has two aldehyde functional groups, what prefix is used?

- A) bi-
- B) di-
- C) tri-
- D) poly-

8. When naming aldehydes with branches, from which end do you start numbering the carbon chain?

- A) The end closest to the branch
- B) The functional group
- C) The middle
- D) Alphabetical order

9. What is the common name for the parent alkane of propanal?

- A) Propane
- B) Propene
- C) Propanol
- D) Propanone

10. What is the primary use of ketones in industry?

- A) As food flavorings
- B) As solvents
- C) As synthetic fibers
- D) As preservatives for food

11. What happens to the color of acidified dichromate when it reacts with an aldehyde?

- A) Changes from green to orange
- B) Changes from orange to green
- C) Remains orange
- D) Remains green

12. Which reagent is used to distinguish between aldehydes and ketones by forming a silver mirror?

- A) Benedict's solution
- B) Tollens' reagent
- C) Bromine water
- D) Sodium hydroxide

13. Does propanone react with Tollens' reagent?

- A) Yes, it forms a mirror
- B) Yes, it turns green
- C) No, the mixture remains colourless
- D) No, it turns orange

14. What is the product of the oxidation of propanal?

- A) Propanone
- B) Propanoic acid
- C) Propane
- D) Propanol

15. Which of the following describes the polarity of the carbonyl functional group?

- A) Non-polar
- B) Polar
- C) Ionic
- D) Metallic