- 1. Which compound yields H⁺ ions as the only positive ions in an aqueous solution?
 - A) KOH
- B) NaOH
- C) CH_3OH
- D) CH₃COOH
- 2. Given a formula of a functional group:

An organic compound that has this functional group is classified as

- A) an acid
- B) an aldehyde
- C) an ester
- D) a ketone
- 3. Given the formula for an organic compound:

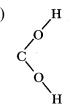
This compound is classified as an

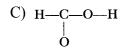
- A) aldehyde
- B) amine
- C) ester
- D) organic acid
- 4. What is the total number of carbon atoms in a molecule of ethanoic acid?
 - **A**) 1
- B) 2
- C) 3
- D) 4
- 5. Given the structural formula:

What is the IUPAC name of this compound?

- A) pentanal
- B) pentanol
- C) methyl pentanoate D) pentanoic acid
- 6. Which of these compounds has chemical properties most similar to the chemical properties of ethanoic acid?
 - A) C₃H₇COOH
- B) C₂H₅OH
- C) C₂H₅COOC₂H₅
- D) C₂H₅OC₂H₅
- 7. The functional group —COOH is found in
 - A) esters
- B) aldehydes
- C) alcohols
- D) organic acids

- 8. Which formula represents ethanoic acid?
 - A) CH₃CHO
- B) CH₃COOH
- C) CH₃CH₂COOH
- D) CH₃CH₂CHO
- 9. Which compound is an acid?
 - A) CH₃COOH
- B) CH₃COOCH₃
- C) C₂H₅OH
- D) CH₃CHOHCH₃
- 10. Which organic compound is classified as an acid?
 - A) CH₃CH₂COOH
- B) CH₃CH₂OH
- C) C₁₂H₂₂O₁₁
- D) C6H₁₂O₆
- 11. If a compound has a molecular formula of CH₂O₂, then its structural formula must be
 - A) H-O-C-O-H

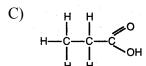






- 12. Which statement is true for a compound whose formula is CH₃CH₂COOH?
 - A) It is an alcohol.
 - B) It is an acid.
 - C) Its solution turns litmus blue.
 - D) Its solution turns phenolphthalein pink.
- 13. The general formula R-COOH represents a class of compounds called
 - A) alkanes
- B) alkenes
- C) acids
- D) alcohols
- 14. Which is the general formula for an organic acid?
 - R-OH

- 15. Which organic compound is a weak electrolyte?
 - A) ethanoic acid
 - B) carbon tetrachloride
 - C) pentane
 - D) benzene
- 16. Which general formula represents an organic acid?
 - A) R—OH
- B) R—CHO
- C) R_1 —O— R_2
- D) R—COOH
- 17. The formula of methanoic acid is
 - A) HCHO
- B) HCOOH
- C) CH₃OH
- D) HCOOCH₃
- 18. A solution of acetic acid
 - A) contains molecules only
 - B) has a pH of 7
 - C) turns red litmus to blue
 - D) conducts electricity
- 19. Which formula represents an organic acid?
 - A) HCOOCH₃
- B) CH₃CH₂OH
- C) CH₃COCH₃
- D) HCOOH
- 20. In an aqueous solution, which substance yields hydrogen ions as the only positive ions?
 - A) C₂H₄
- B) CH₃COOH
- C) CH₄
- D) KOH
- 21. Which structural formula represents an organic acid?
 - A) H H H H—C—C—C—OH H H H H
-) н он н | | | н—с—с—с—н | | | н н н

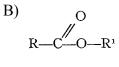


- 22. Which formula represents an organic acid?
 - A) CH₃COOH
- B) CH₃CHO
- C) CH₃COCH₃
- D) CH₃OH

23. The general formula of organic acids can be represented as

D)



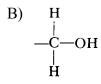


 $^{\rm C)}$ R $-_{\rm OH}$



- 24. Which formula represents ethanoic acid?
 - A) CH₃OCH₃
- B) CH₃CH₂OH
- C) HCOOCH₃
- D) CH₃COOH
- 25. Which functional group is found in all organic acids?





C) H -C=C

