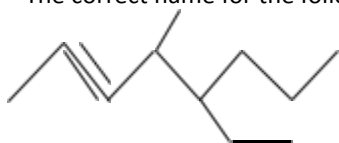
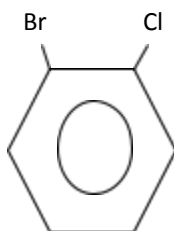


Organic: Names & Diagrams

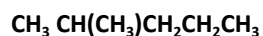
1. The correct name for the following diagram is



- a) 5-ethyl-4-methyloct-2-yne
b) 1-propyl-2-ethyl-3-methylhex-4-yne
c) 4-ethyl-5-methyloct-6-yne
d) 4-methyl-5-propylhept-2-yne
2. The name for condensed structural formula $\text{CH}_3\text{C}(\text{CH}_3)_2\text{CCCH}_3$ is
- a) Hept-2-yne
b) 2,2-methylpent-3-yne
c) 2,2-dimethylpent-2-yne
d) 4,4-dimethylpent-2-yne
3. Ethyl butanoate is a substance which is used as an artificial peach flavour. The correct molecular formula for ethyl butanoate is _____
- a) $\text{C}_4\text{H}_9\text{COOC}_2\text{H}_5$
b) $\text{CH}_3\text{COOC}_4\text{H}_9$
c) $\text{C}_3\text{H}_7\text{COOC}_2\text{H}_5$
d) $\text{C}_2\text{H}_5\text{COOCH}_3$
4. Which of the following is an INCORRECT name for $\text{CH}_3\text{COOH}_{(\text{aq})}$?
- a) ethanedioic acid
b) ethanoic acid
c) acetic acid
d) vinegar
5. The correct IUPAC name for the substance sketched below is _____



- a) 1-bromo-2-chlorobenzene
b) m-bromochlorobenzene
c) 1-chloro-2-bromobenzene
d) 1-bromo-2-chlorocyclohexane
6. Given the structural below, the correct IUPAC name for the compound is _____

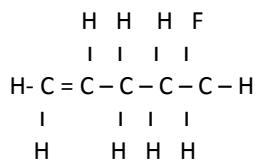


- a) Dipropylmethane
b) methylpentane
c) hexane
d) 2-methylpentane

7. What is the correct structural formula for 3-chloro-1-pentene?

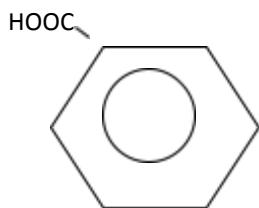
- | | |
|---|--|
| a) $\text{CH}_2\text{CHCHClCH}_2\text{CH}_3$ | b) $\text{CH}_3\text{CHCCl}_2\text{CHCH}_3$ |
| c) $\text{CH}_2\text{CHCH}_2\text{ClCH}_2\text{CH}_3$ | d) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CClCH}_2$ |

8. Choose the correct IUPAC name for the following structural diagram.



- | | |
|-----------------------|-----------------------|
| a) 1-fluoropent-4-ene | b) 5-fluoropent-2-ene |
| c) 4-fluorobut-1-ene | d) 5-fluoropent-1-ene |

9. Choose the correct IUPAC name for



- | | |
|-------------------------|------------------------|
| a) Cyclohexanoic acid | b) methylbenenoic acid |
| c) phenylmethanoic acid | d) benzoic acid |

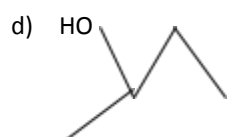
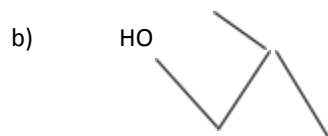
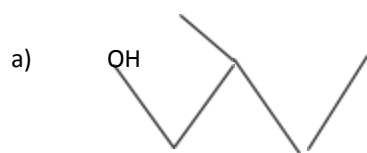
10. A chemistry student named a compound 2-ethyl-3-methyl-2-pentene. When the student drew this structural diagram, he realized that the name for the compound was incorrect. The name should have been _____

- | | |
|-------------------------------|--------------------------|
| a) 3-methyl-4-ethylpent-2-ene | b) 2,3-diethylbut-2-ene |
| c) 2-ethyl-2-methylpent-2-ene | d) 3,4-dimethylhex-3-ene |

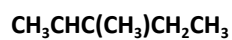
11. Choose the correct IUPAC name for the following compound $\text{CH}_3\text{CH}_2\text{OOCCH}_2\text{CH}_3$

- a) ethylpropanoate
b) propylethanoate
c) 3-oxypentan-2-one
d) Ethylpropanol

12. The correct line diagram for 3-methylbutan-1-ol is



13. Choose the correct IUPAC name for the following structural diagram.



- a) 3-methylpent-2-ene
c) 3-ethylpentane

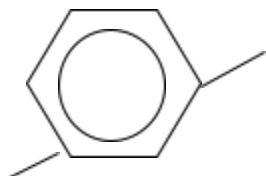
- b) 3-methylpent-3-ene
d) 3-methylpent-3-yne

14. Choose the correct IUPAC name for **$\text{CH}_3\text{C}(\text{OH})_2\text{CH}(\text{CH}_3)\text{CH}_2\text{CH}_3$**

- a) 3-methylpentan-2,2-diol
c) 2,2-dihydroxy-3-methylpentane

- b) 3-methylpentan-4,4-diol
d) 3-ethylbutan-2,2-diol

15. Consider the following structural diagram. This structure belongs to the _____ group.



- a) aliphatic
c) alkyne

- b) aromatic
d) carboxylic acid

16. Give the correct name for the following compound. $\text{CH}_3\text{CHC}(\text{CH}_3)\text{CH}_3$

- a) 3-methylbut-2-ene
- b) pent-3-ene
- c) 2-methylbut-1-yne
- d) 2-methylbut-2-ene

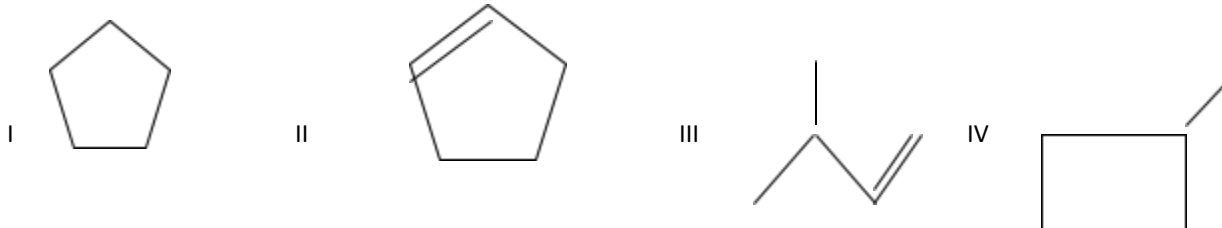
17. The correct expanded formula for propan-2-ol is _____

- a) $\text{CH}_2(\text{OH})\text{CH}_2\text{CH}_3$
- b) $\text{CH}_3\text{CH}(\text{OH})\text{CH}_3$
- c) $\text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{CH}_2\text{CH}_3$
- d) $\text{CH}_3\text{CH}_2\text{CH}(\text{OH})\text{CH}_2\text{CH}_3$

18. The correct IUPAC name for the condensed structural formula $\text{CH}_3\text{C}(\text{CH}_3)\text{C}(\text{CH}_3)\text{CH}_2\text{CH}_3$ is _____

- a) 3,4-dimethyl pent-3-ene
- b) 2-methyl-3-ethyl but-2-ene
- c) 2,3-dimethyl pent-2-ene
- d) 2-ethyl-3-methyl but-2-ene

19. Consider the line diagrams for some organic compounds.



Which line diagrams above represent organic compounds that are structural isomers?

- a) II and III
- b) I, III, and IV
- c) I, II and IV
- d) I and II

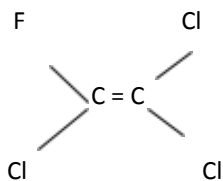
20. Consider the condensed structural formula : $\text{CH}_3\text{CHC}(\text{CH}_3)\text{CH}(\text{C}_6\text{H}_5)\text{CH}_3$. The correct IUPAC name for this diagram is

- a) 2-methyl-1-phenylbut-2-ene
- b) 2-phenyl-3-methylpentane
- c) 3,4-dimethyl-2-phenylbutane
- d) 3-methyl-4-phenylpent-2-ene

21. Consider the condensed structural formula: $\text{CH}_3\text{CH}(\text{OH})\text{CH}(\text{OH})\text{CH}_2(\text{OH})$. The correct IUPAC name for this diagram is

- a) propane-1,2,3-triol
- b) butane-1,2,3-triol
- c) propane-2,3,4-ol
- d) 1,2,3-butane-triol

22. Consider the diagram below:



The correct IUPAC name for this diagram is

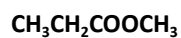
- a) 1- fluoro-1,2,2-trichloro ethane
- b) trichlorofluoroethene
- c) fluorotrichloroethene
- d) fluorotrichloroethene

23. The correct IUPAC name for the following line diagram is _____



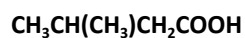
- a) 2,3 - dimethyl hex-4-ene
- b) 4,5 - dimethy hex-2-ene
- c) 4,5 - methyl hex-4 - ene
- d) 2,3 - dimethyl hex-2-yne

24. The correct IUPAC name for the following **condensed** structural diagram is _____.



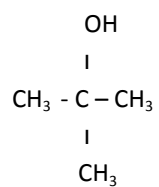
- a) methyl propanoate
- b) butanoic acid
- c) propyl methanoate
- d) methyl propanoic acid

25. The correct name for the following structural diagram is _____



- a) 2-methyl butanoic acid
- b) 3-methyl butanoic acid
- c) methylbutanoate
- c) isomethyl butanoate

26. The isomer of $C_4H_9OH_{(l)}$ shown below is a(n) _____ alcohol.



- a) primary
- b) secondary
- c) tertiary
- d) carbonyl

Solutions:

1. A
2. D
3. C
4. A
5. A
6. D
7. A
8. D
9. D
10. D
11. A
12. B
13. A
14. C
15. B
16. D
17. B
18. C
19. B
20. D
21. B
22. B
23. B
24. A
25. B
26. C