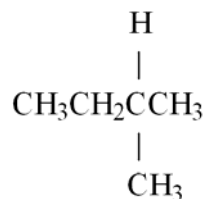


1. Name the following:



[A] dodecane

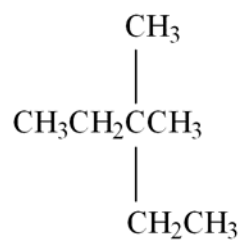
[B] methylpentane

[C] isopropane

[D] methylbutane

[E] *n*-pentane

2. Name the following:



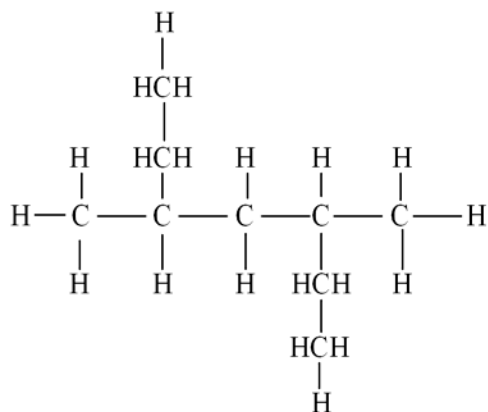
[A] *n*-heptane

[B] 2,2-diethylpropane

[C] 2-methyl-2-ethylbutane

[D] 3,3-dimethylpentane

3. Name the following:



[A] secondary ethylpentane

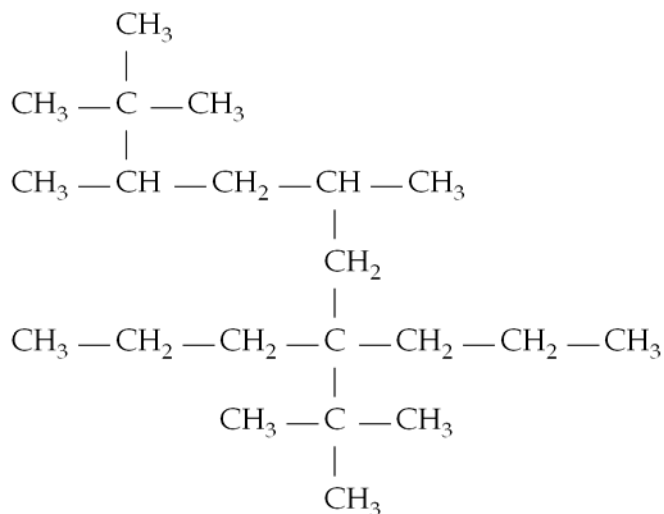
[B] 2,4-diethylpentane

[C] 3,5-dimethylheptane

[D] 2,3-dimethyl-2,3-diethylpropane

[E] none of these

4. Name the following:



- [A] 2,2,5,7,8,8-hexamethyl-3,3-dipropylnonane [B] isononane
 [C] 2,2,3,5-tetramethyl-7-propyl-7-*t*-butyldecane [D] 6-propyl-2,6-di-*t*-butylnonane
 [E] none of these

5. A student gave a molecule the following name:

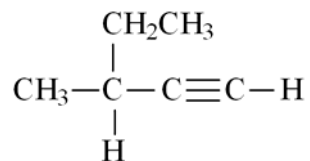
2-methyl-4-*t*-butylpentane

However, the teacher pointed out that, although the molecule could be correctly drawn from this name, the name violates the IUPAC rules. What is the correct (IUPAC) name of the molecule?

- [A] 2,4,5,5-tetramethylhexane [B] 2-*t*-butyl-4-methylpentane
 [C] 1-*sec*-butyl-1,2,2-trimethylpentane [D] 2,2,3,5-tetramethylhexane
 [E] none of these (a-d)
6. Which of the following names is a correct one?
 [A] *t*-butylethane [B] 3-methyl-4-isopropylpentane
 [C] *trans*-1,2-dimethylethane [D] 2-ethyl-4-tertiary-butylpentane
 [E] 2,2,3,5-tetramethylheptane

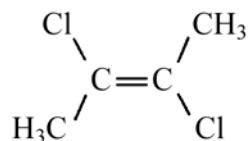
7. How many isomers of C₃H₈ are there? [A] 6 [B] 2 [C] 5 [D] 3 [E] 1

8. Name the following:



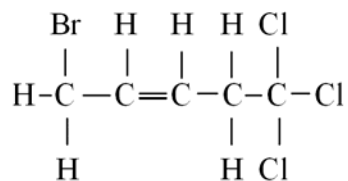
- [A] 1-hexyne [B] 2-ethyl-3-butyne [C] 2-ethynyl butane
[D] 3-methyl-4-pentyne [E] 3-methyl-1-pentyne

9. Name the following:



- [A] 2-chloro-3-chloro-*cis*-2-butene [B] 1-chloro-1-methyl-2-chloro-propene
[C] 2,3-dichloro-1-methyl-propene [D] 2,3-dichloro-*trans*-2-butene
[E] 2,3-dichloro-*cis*-2-butene

10. Name the following:

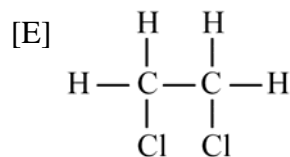
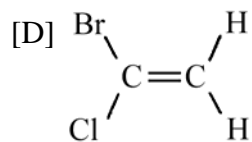
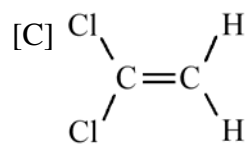
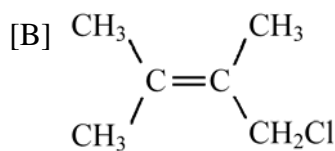
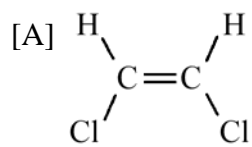


- [A] 5,5,5-trichloro-1-bromo-2-pentene [B] 1,1,1-trichloro-5-bromo-2-pentene
[C] 1,1,1-trichloro-5-bromo-3-pentyne [D] 1,1,1-trichloro-5-bromo-3-pentene
[E] none of these

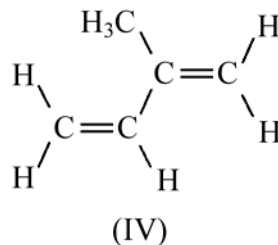
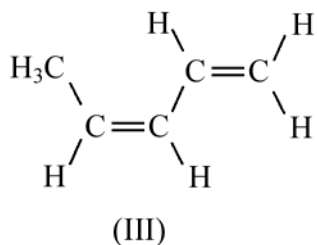
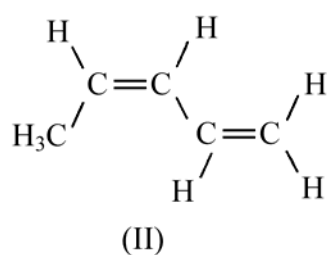
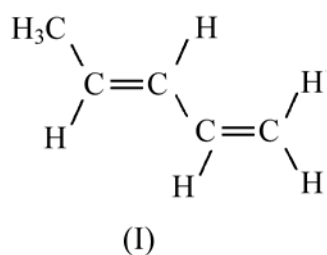
11. $\text{CH}_3\text{C}\equiv\text{CCH}_2\text{CH}_2\text{Cl}$ is named:

- [A] 5-chloro-2-pentene [B] 5-chloro-2-pentyne [C] 1-chloro-3-pentyne
[D] 1-chloro-3-pentene [E] 1-acetylenyl-3-chloropropane

12. Which of the following compounds can exhibit geometrical isomerism?



13. Consider the following four compounds:



Which of these compounds would have the same physical properties (m.p., b.p., density, etc.)?

- [A] II and III [B] I and II [C] I and III [D] III and IV [E] I and IV

[1] _____

[2] _____

[3] _____

[4] _____

[5] _____

[6] _____

[7] _____

[8] _____

[9] _____

[10] _____

[11] _____

[12] _____

[13] _____

Reference: 22.1

[1] [D]

Reference: 22.1

[2] [D]

Reference: 22.1

[3] [C]

Reference: 22.1

[4] [C]

Reference: 22.1

[5] [D]

Reference: 22.1

[6] [E]

Reference: 22.1,2

[7] [E]

Reference: 22.2

[8] [E]

Reference: 22.2

[9] [D]

Reference: 22.2

[10] [A]

Reference: 22.2

[11] [B]

Reference: 22.2

[12] [A]

Reference: 22.2

[13] [A]