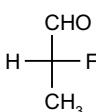
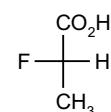
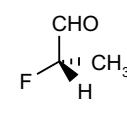
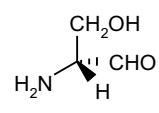
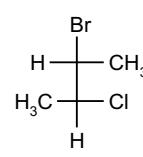
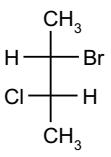


EXERCISE TEST No. 4 – Chirality

1.	<p>Indicate the enantiomer of the highlighted 1,3-dimethylcyclohexane.</p> <p></p> <p>1 </p> <p>2 </p> <p>3 </p>
A)	1.
B)	2.
C)	3.
D)	All.
2.	<p>Indicate the sequence of priorities required to assign the absolute configuration to the following molecule in Fisher projection.</p> <p></p> <p>A) $-\text{NH}_2 > -\text{CONH}_2 > -\text{C}\equiv\text{CH} > -\text{H}$. B) $-\text{CONH}_2 > -\text{C}\equiv\text{CH} > -\text{NH}_2 > -\text{H}$. C) $-\text{C}\equiv\text{CH} > -\text{NH}_2 > -\text{CONH}_2 > -\text{H}$. D) $-\text{NH}_2 > -\text{C}\equiv\text{CH} > -\text{CONH}_2 > -\text{H}$.</p>
3.	<p>Indicate how many of the structures listed are enantiomers of the highlighted molecule.¹</p> <p></p> <p> </p>
A)	1.
B)	2.
C)	3.
D)	4.
4.	<p>Indicate which compound is an R-series enantiomer.</p> <p>1 </p> <p>2 </p> <p>A) 1 = Yes; 2 = Yes. B) 1 = Yes; 2 = No. C) 1 = No; 2 = Yes. D) 1 = No; 2 = No.</p>
5.	<p>Indicate which pair of formulas represents a pair of enantiomers..</p> <p>1 </p> <p>2 </p> <p>A) 1 = Yes; 2 = Yes. B) 1 = Yes; 2 = No. C) 1 = No; 2 = Yes. D) 1 = No; 2 = No.</p>

¹ Each chiral molecule has only one enantiomer, which can have different representations.

6.	<p>Indicate which compound is both a D-series enantiomer and an R-series enantiomer.</p> <p>1 </p> <p>2 </p> <p>A) 1 = Yes; 2 = Yes. B) 1 = Yes; 2 = No. C) 1 = No; 2 = Yes. D) 1 = No; 2 = No.</p>
7.	<p>Indicate how many stereoisomers the following compound has.</p> <p>$\text{CH}_3\text{CH}_2\text{CHOHCH}(\text{CH}_3)\text{CHClCH}(\text{CH}_3)_2$</p> <p>A) 2. B) 8. C) 4. D) 16.</p>
8.	<p>To assign the correct stereochemistry, indicate the group with the highest priority.</p> <p>A) $-\text{NHCH}_3$. B) $-\text{COCH}_3$. C) $-\text{CN}$. D) $-\text{CO}_2\text{CH}_3$.</p>
9.	<p>Indicate which compound is both a D-series enantiomer and an R-series enantiomer.</p> <p>1 </p> <p>2 </p> <p>A) 1 = Yes; 2 = Yes. B) 1 = Yes; 2 = No. C) 1 = No; 2 = Yes. D) 1 = No; 2 = No.</p>
10.	<p>Indicate the relationship between the two compounds.</p> <p> </p> <p>A) Enantiomers. B) Diastereomers. C) Same compound; it is a meso compound. D) Same compound; it is not a meso compound.</p>
11.	<p>To assign stereochemistry, indicate which order of priority is correct.</p> <p>(1) $-\text{CN} > -\text{CH}_3$; (2) $-\text{SCH}_3 > -\text{NH}_2$.</p> <p>A) 1 = Yes; 2 = Yes. B) 1 = Yes; 2 = No. C) 1 = No; 2 = Yes. D) 1 = No; 2 = No.</p>
12.	<p>Indicate which compound is chiral.</p> <p>(1) $\text{CH}_2\text{BrCH}_2\text{CH}_2\text{CH}_2\text{CH}_2\text{Br}$; (2) $\text{CH}_3\text{CBr}_2\text{CH}_2\text{CH}_2\text{CH}_3$.</p> <p>A) 1 = Yes; 2 = Yes. B) 1 = Yes; 2 = No. C) 1 = No; 2 = Yes. D) 1 = No; 2 = No.</p>

13. Considering that only carbon, hydrogen, and a single oxygen atom are used, indicate the molecular formula of the non-cyclic chiral aldehyde with the lowest molecular weight.

A) $\text{C}_3\text{H}_6\text{O}$.

B) $\text{C}_4\text{H}_8\text{O}$.

C) $\text{C}_5\text{H}_6\text{O}$.

D) $\text{C}_6\text{H}_{12}\text{O}$.