

Quiz #1 Ch 1-3 Fall 00 (20 questions for 20 points)

Name _____

If you do not want your graded quiz placed in the box outside my office, then please tick here _____

(1-10) are True or False.

- 1) Organic chemistry is the study of carbon containing compounds
- 2) Electrons are negatively charged and therefore repel one another
- 3) A π bond is formed by the sideways overlap of two p orbitals
- 4) Oxygen is more electronegative than carbon
- 5) Cyclohexane has more ring strain than cyclopropane
- 6) CHF=CClBr can exist as cis and trans isomers
- 7) The $n=2$ shell consists of s and p orbitals
- 8) sp hybrid orbitals give rise to bond angles of 109.5°
- 9) sp^2 hybrid orbitals give rise to bond angles of 120°
- 10) A σ bond places electron density directly between the atoms being bound together

11-17) Draw Lewis structures (lines for bonds, dots for lone pairs of electrons) for:

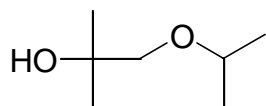


13) HCN

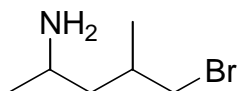
14) HOF

15) $\text{CF}_3\text{CH}_2\text{CO}_2\text{H}$

16)



17)



18) Cyclohexane can exist as chair or boat forms. Are these forms different **STRUCTURAL ISOMERS**, **CIS/TRANS ISOMERS** or **CONFORMERS**? (circle one)

19+20) Draw ethylcyclohexane in its most stable arrangement.

BONUS QUESTION for 1 extra point

Is Dr Roche left or right handed?

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Name ISSO EEZAH

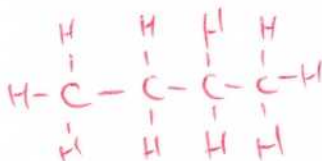
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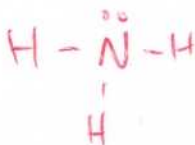
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11-17) Draw Lewis structures (lines for bonds, dots for lone pairs of electrons) for:

11) $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_3$



12) NH_3



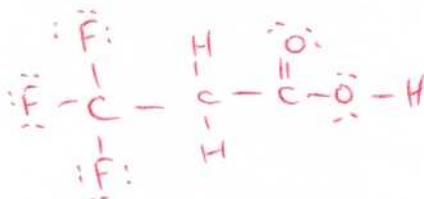
13) HCN



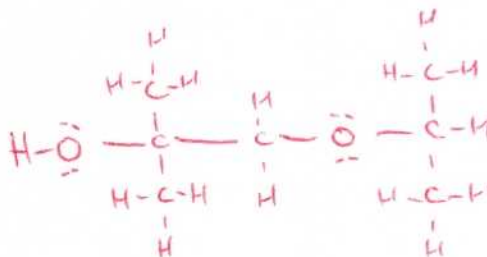
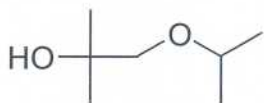
14) HOF



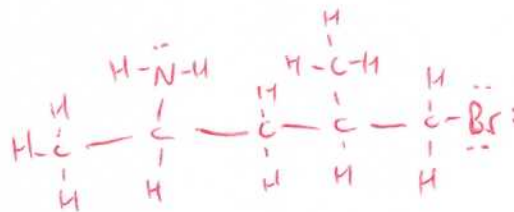
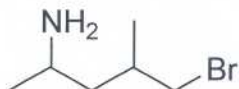
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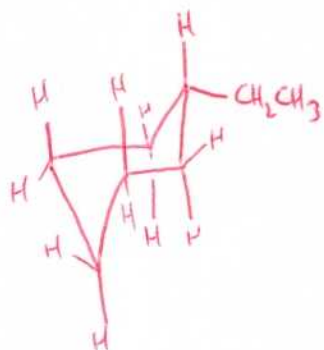


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18) Cyclohexane can exist as chair or boat forms. Are these forms different STRUCTURAL ISOMERS, CIS/TRANS ISOMERS or CONFORMERS? (circle one)

19+20) Draw ethylcyclohexane in its most stable arrangement.



Chair = 1pt
Equatorial = 1pt

BONUS QUESTION for 1 extra point

Is Dr Roche left or right handed?

RIGHT