

Name: _____

Date: _____

[4 pt] 1. Answer the following questions about the vital-force theory of organic chemistry:

- (a) Explain the theory.

- (b) Who is responsible for disproving it **AND** how did he disprove it?

- (c) Draw the structure of the molecule he synthesized and identify the functional groups it contains.

[6 pt] 2. Define the following terms **AND** draw an example illustrating the definition.

- (a) saturated hydrocarbon:

- (b) unsaturated hydrocarbon:

- (c) What 3 functional groups are commonly found in Carbohydrates?

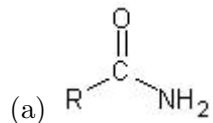
- (d) What 1 functional group is commonly found in Fatty Acids (Lipids)?

- (e) What 2 functional groups are commonly found in Proteins?

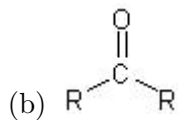
- (f) What 2 functional group is commonly found in Nucleic acids?

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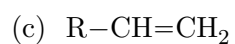
[10 pt] 3. Match the following functional groups with proper class of compound: (Alkane, Alkene, Alkyne, Alkyl Halide, Alcohol, Ether, Aldehyde, Ketone, Carboxylic Acid, Ester, Amide, Amine.)



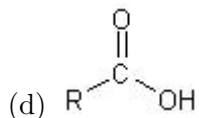
3(a) _____



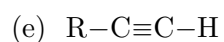
3(b) _____



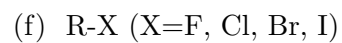
3(c) _____



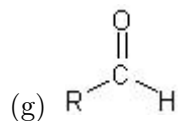
3(d) _____



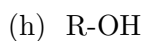
3(e) _____



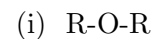
3(f) _____



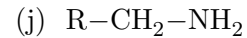
3(g) _____



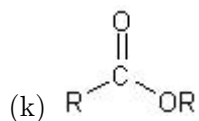
3(h) _____



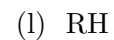
3(i) _____



3(j) _____



3(k) _____



3(l) _____