Organic Compounds

Chemistry name

1 Write the functional group for each class of organic compounds. Then name the functional group.

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| **Alcohol** | **Aldehyde** | **Ether** |
| **Carboxylic acid** | **Ketone** | **Ester** |

2 Draw each structural formula and identify the functional group. Then classify each of the organic compounds as an alcohol, carboxylic acid, aldehyde, ketone, ether or ester.

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| a. CH3COOH | b. CH3CH(OH)CH3 |
| c. CH3COCH3 | d. CH3CH2COOH |
| e. CH3CH2OH | f. CH3CH2COOCH3 |
| g. CH3CH2OCH3 | h. CH3CH2COCH3 |
| i. CH3CH2CHO | j. CH3OCH3 |

3 Straight chain pentane has the formula C5H8­. Draw and name two isomers of C5H8 that are not straight chain pentane.

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| Name: | Name: |

4 a) Draw structural formulas for each of the given names. *Two names are given for each.*

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| methoxyethane (ethyl methyl ether) | propanol (propyl alcohol) | 2-propanol (isopropyl alcohol) |

b) How are these three structures related?

5. Draw structures for each polymer made up of **three** monomer units.

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| Polyethylene (PE) | Polyvinyl chloride (PVC) |
| Polytetrafluoroethylene (PTFE, “Teflon”) | Polystyrene (“Styrofoam”) |