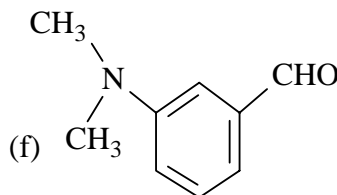
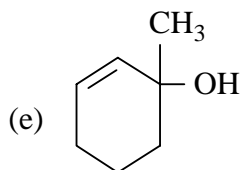
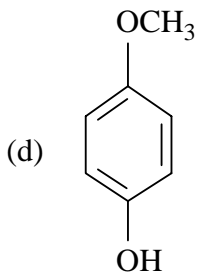
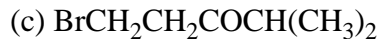
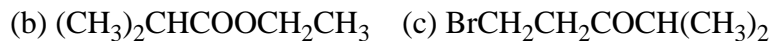


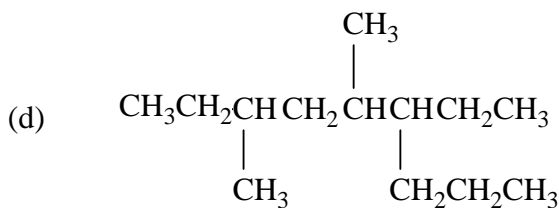
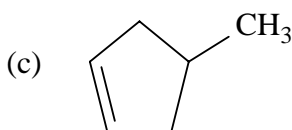
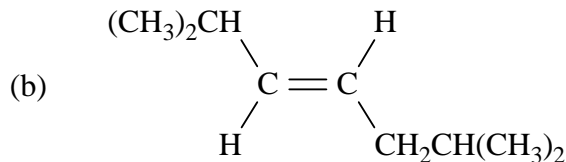
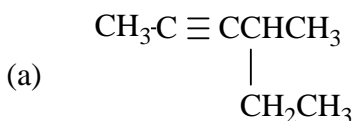
ORGANIC PROBLEM SET 1

1. Draw the structures to **show** all the bonds and **name** the *functional group(s)* in each of the following:



2. Draw the structures of **all** compounds of molecular formula $\text{C}_3\text{H}_6\text{Br}_2$.

3. Give IUPAC names for:



4. Draw structural formulas for:

(a) 3,4,4,5-tetramethylheptane

(b) 4-ethyl-1-octyne

(c) 3-chlorocyclohexene

(d) *cis*-2-methyl-3-nonene

5. Indicate which of the following show geometric (*cis-trans*) isomerism, and **draw** all of the *cis-trans* isomers:

(a) 1,1-dichloroethene

(b) 2-methyl-2-butene

(c) 1-pentene

(d) 2,4-hexadiene

(e) 1-chloro-2-methyl-2-butene

(f) 1-chloropropene

(g) 4-ethyl-3-methyl-3-hexene

(h) 1-chloro-3-methylcyclohexane

(i) 2-bromo-1,1-dichlorocyclopentane