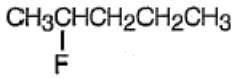
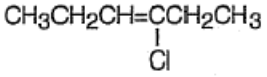
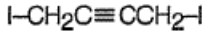
Organic Review

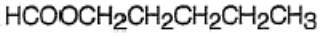
Name - _____

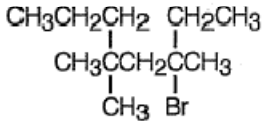
1.) Name the following molecules.

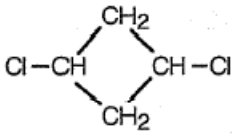
(a) 

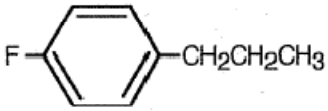
(b) 

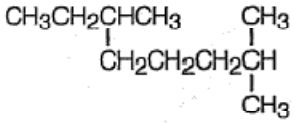
(c) 

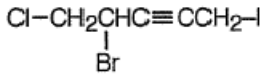
(d) 

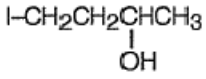
(e) 

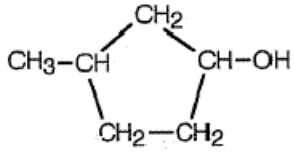
(f) 

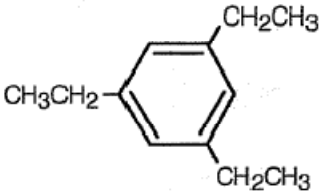
(g) 

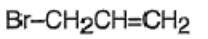
(h) 

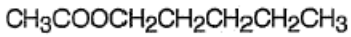
(i) 

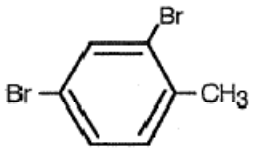
(j) 

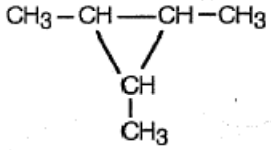
(k) 

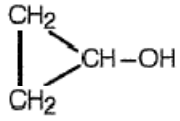
(l) 

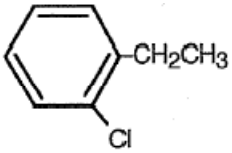
(m) 

(n) 

(o) 

(p) 

(q) 

(r) 

2.) Draw the following molecules.

(a) 1,4,4–trifluoro–2–pentanol
(b) 4–chloro–2–hexyne
(c) ethyl pentanoate
(d) 3,4,5,6–tetramethylnonane
(e) 3–octyne
(f) 1,3–diethylbenzene
(g) 1,3–dibromo–3–hexene
(h) 3,5–diethyl–4,4–dimethylheptane
(i) 2,3–dichloro–2–butene
(j) methyl octanoate
(k) 3,3–diiodo–4–ethyl–2–methyl–1–hexene
(l) cyclooctene
(m) 2–methyl–3–heptyne
(n) 3–methyl–1–cyclobutanol
(o) 1–ethyl–3–propylbenzene
(p) cyclohexyne
(q) 2–methyl–2–butanol
(r) 2,2,3,3–tetrabromobutane

3.) A hydrocarbon has the formula C_NH_{2N-2}. Which of the following are possible?

(a) The compound is branched but has no multiple bonds or cyclic groups.
(b) The compound has a single double bond.
(c) The compound has a single triple bond.
(d) The compound has a single cyclic group.
(e) The compound has two double bonds.
(f) The compound has two triple bonds.
(g) The compound has two cyclic groups.
(h) The compound has a double bond and a triple bond.
(i) The compound has a double bond and a single cyclic group.
(j) The compound has a cyclic group and a triple bond.

4.) Draw the following cis and trans isomers.

(a) trans–3,4–dichloro–3–hexene
(b) trans–2–octene
(c) cis–2,3–dibromo–2–butene
(d) trans–1,1,1–trifluoro–2–pentene
(e) cis–1,1,1,7,7,7–hexachloro–3–heptene
(f) cis–2–nonene

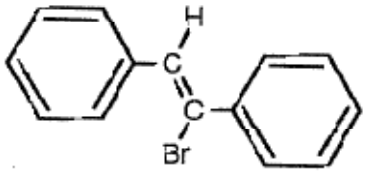
5.) Circle the functional groups and label each group as one of:

DOU = double bond ,	TRI = triple bond ,	ARO = aromatic ring ,	HAL = halide ,
ALC = alcohol ,	ALD = aldehyde ,	KET = ketone ,	ETH = ether ,
AMN = amine ,	AMD = amide ,	CAR = carboxylic acid ,	EST = ester.

(a) $F_3CCOOCH_3$

(b) $CH_3COCH_2CH_2OH$

(c)



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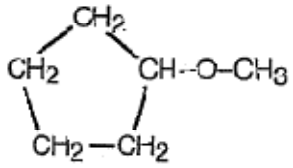
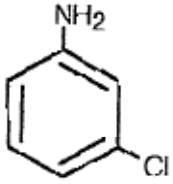


(e) $CH_3C(CH_3)=CHCHC\equiv CH$

(f) $H_2NCOCH_2CH(NH_2)CH_2CONH_2$

(g)



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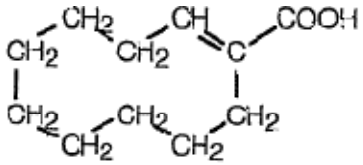
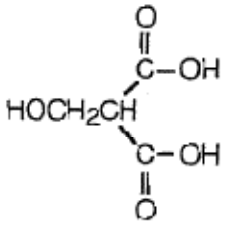


(i) $CH_3CH(OH)CH_2–O–CH_3$

(j) $H_2NCOCH_2CHCl-C\equiv CCHClCHO$

(k)



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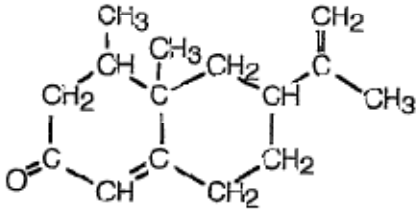
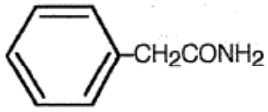
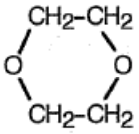
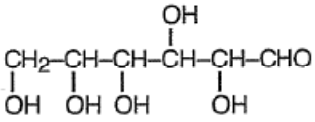
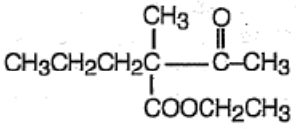
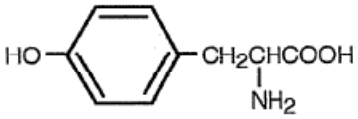


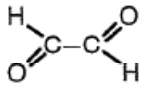
(m) 

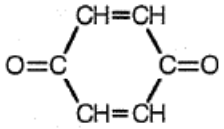
(n) 

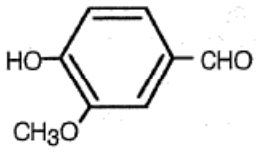
(o) 

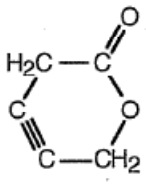
(p) 

(q) 

(r) 

(s) 

(t) 

(u) 

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