HOMEWORK ASSIGNMENT #6 ORGANIC CHEMISTRY I (20 pts)

due Monday 15 October

*Naming Alkyl Halides : reactions to RX*

**Your name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**6.1. Name or draw us: (1 pt each answer) 9 total**





**a) b)**

*1-methyl butyl bromide 4-ethyl-1,2,5-trimethyl-3-cyclopropyl hexyl chloride*

**(functional name) (functional name)**

*2-bromopentane 2-chloro-5-ethyl-3,6-dimethyl-4-c yclopropylheptane*

**(substitutive= IUPAC name) (substitutive= IUPAC name)**





**c) d)**

**draw: 1,4-dimethylhexyl fluoride here** *4-chloro-5-methyl-3-hexanol*

**e) (substitutive =IUPAC name )**



*2-chloro-1-ethyl-3-methyl butyl alcohol*

**(functional name)**

**f)** *dichlorodifluoromethane*

**Draw 1,1,2-trimethylbutyl bromide IUPAC name for Freon 12**

**6.2. Predict the most likely product(s) of the reactions proposed below: (1 pt/box)**



Pyridine or

KHCO3

11 pts total

a) 3-methyl-2-butanol + SOBr2

H2SO4/reflux

HCl or NaCl

b) t-butanol + t-butyl chloride (40% yield/2 h)



H2SO4/heat

Markovnikoff add of Br

c) (CH3)2C=CH2 + HBr

CCl4/wet



d)

Br2



+

NBS

e) CH2=CH-CH3 + light CH2=CH-CH2Br