KWANTLEN UNIVERSITY COLLEGE
CHEMISTRY 1110 S-10
EXAM No. 1
Thursday February 19, 1998

ANSWER KEY

Note: Detailed solutions to the problems are available at the reserve desk in the library.

Question One:

a) 89 s

b) 2.50 *M*

c) 0.01500 *N*; 7.500 x 10^{-3} *M*

Question Two:

a) 32.9 g/mol

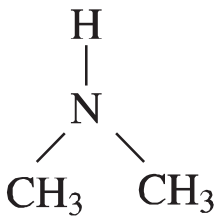
b) **i)** 131g $NaN_3(s)$

ii) 94.7%

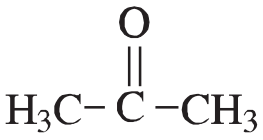
Question Three: 43.9% Ag

Question Four: Only one of many possible answers is provided for each case below.

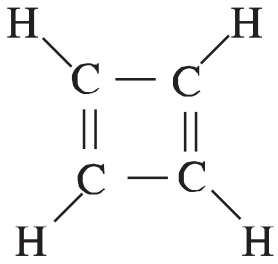
a)



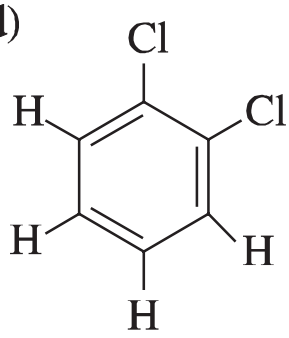
b)



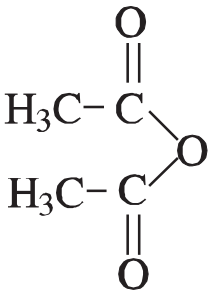
c)



d)



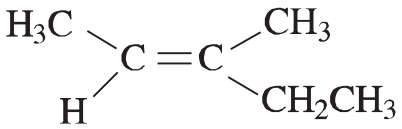
e)



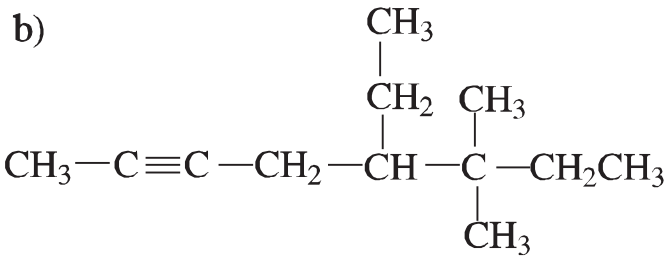
f)

Question Five:

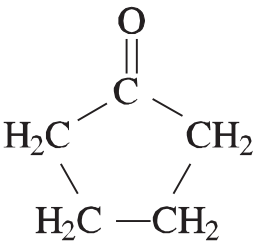
a)



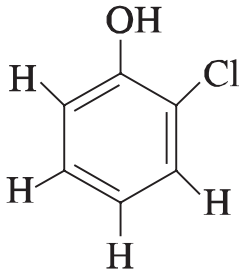
b)



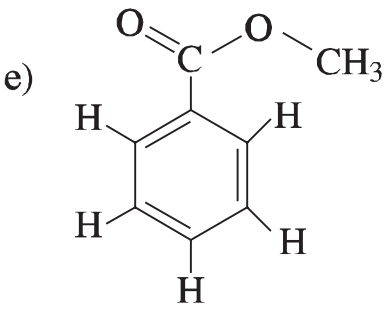
c)



d)



e)



Question Six: (10 MARKS)

a) 3-chloro-4-methyl-pentanol

b) *trans*-3,6-dichloro-1,2-dimethylcyclohexene

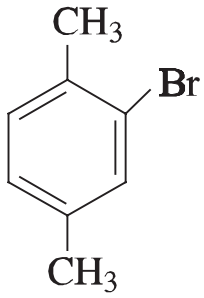
c) *m*-bromoethylbenzene or bromo-3-ethylbenzene

d) 3,5-dimethyl-3-hexanol

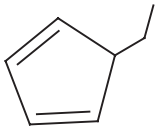
e) 3,3-dimethylbutanoic acid

Question Seven:

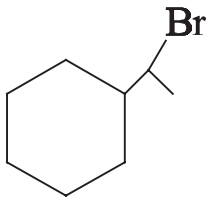
a)



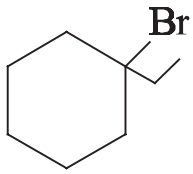
b)



c)

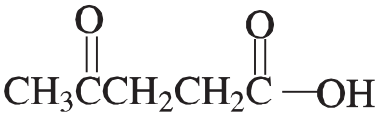


Minor Prod.

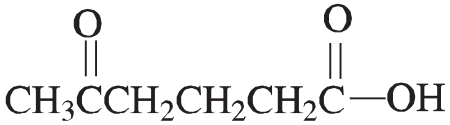


Major Prod.

d)



e)



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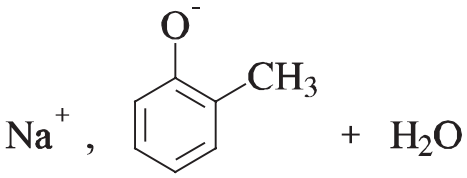
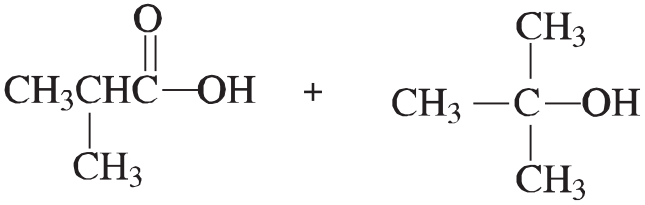


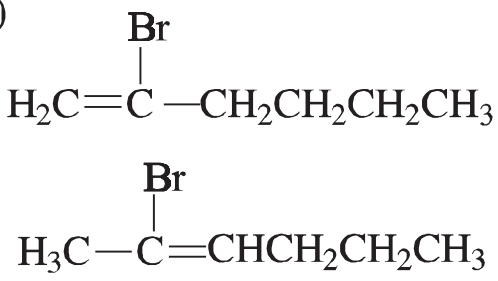
g)



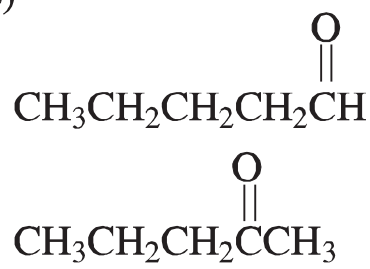
Question Eight:

Examples of the various isomers are presented below. Others are possible.

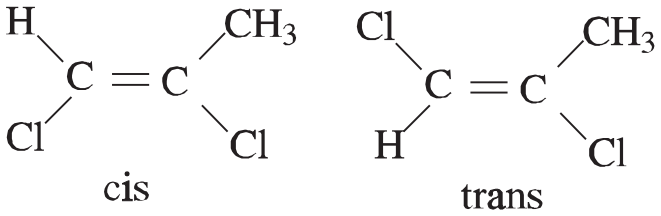
a)



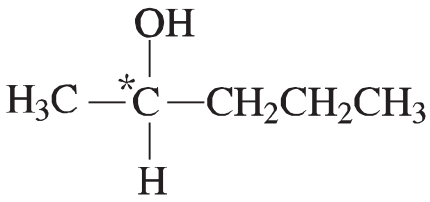
b)



c)

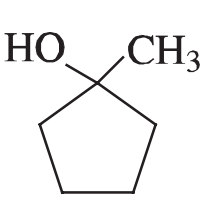


d)

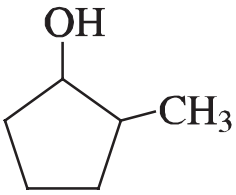


Question Nine:

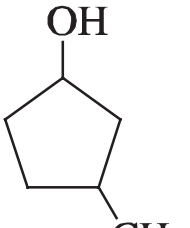
a)



A



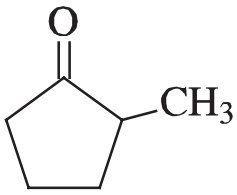
B



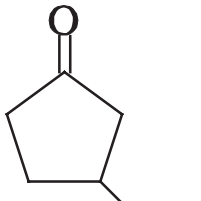
C

Note: In this problem **B & C** are interchangable.

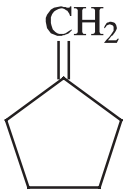
b)



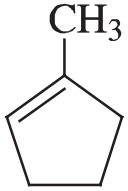
I



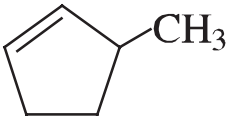
II



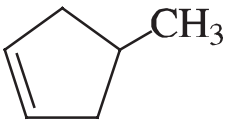
III



IV



V



VI