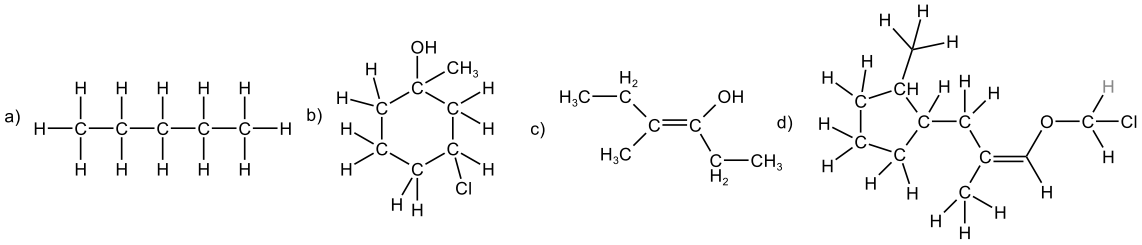
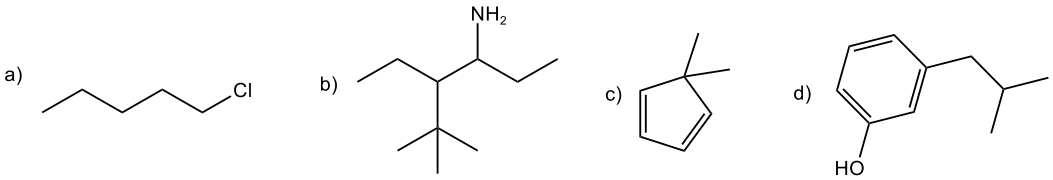
Exercise 1 :

1. Write the condensed formula and draw the bond ling formula for each complet formula

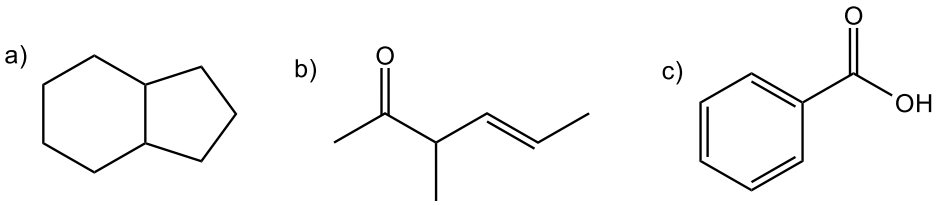


2. Draw the complet structural formula of the molecules below



Exercise 2 :

1. Determine the degrees of unsaturation for each of the following compounds.

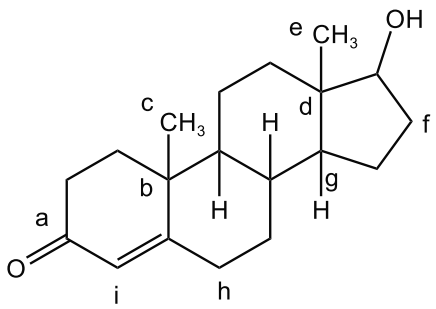


2. Determine the degrees of unsaturation and write the bond ling formulas of 5 isomers corresponding to the following chemical formulas :

a) $C_6H_{10}N_4$; b) $C_5H_{10}O$; c) $C_3H_4Cl_2$; d) C_3H_9N

Exercise 3 :

In this drawing of testosterone, named the labled carbons (a-i) as primary, secondary tertiary, quaternary



Exercise 4 :

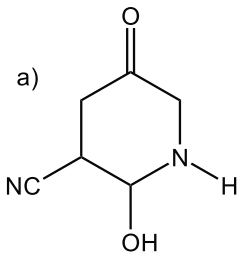
1. Name the functional groups present in the following compounds.

a) $CH_2{-}CO{-}CH_2{-}CH_2{-}CH_2{-}CH_3$, b) $CH_3{-}CH_2{-}CH_2{-}COOH$,

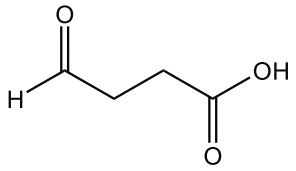
c) $CH_3{-}CH_2{-}CH_2{-}CH_2{-}CHO$, d) $CH_3{-}CH_2{-}OH$

2. Identify the function group present in given molecule and encircle them:

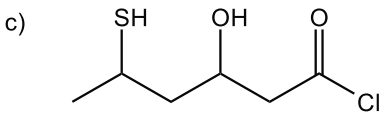
a)



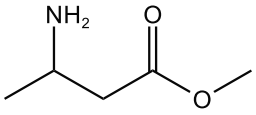
b)



c)



d)



3. Identify the functional groups in the tetracycline molecule shown below.