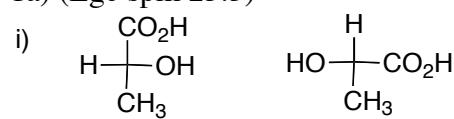
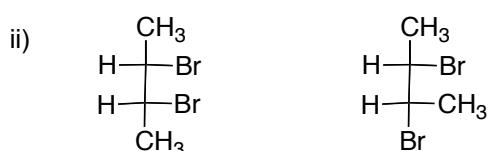


KJM3200/4200, Spring 08, Suggested solution

1a) (Ege spm 25.3)



Identical: Both are the (B) enantiomer



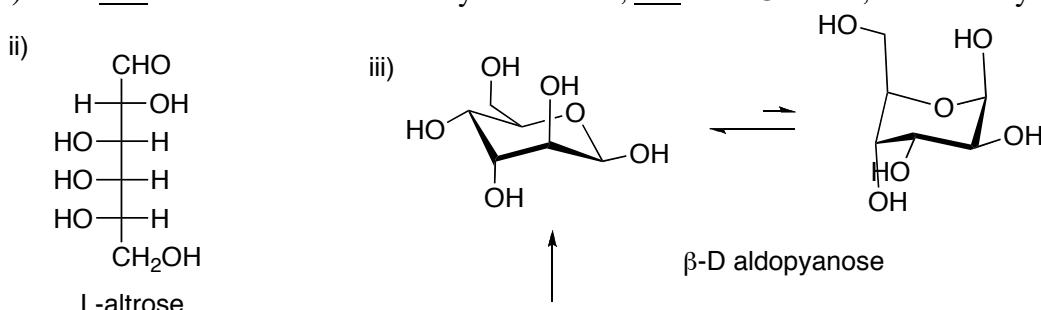
diastereomeric

(S B)

(S S)

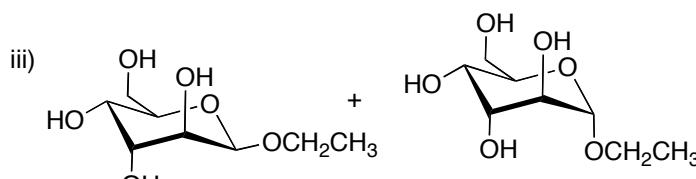
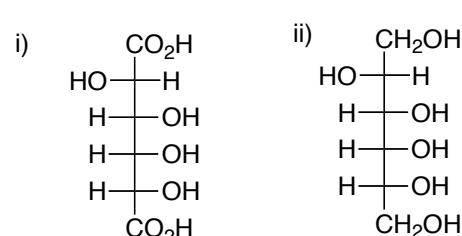
b)

i) Aldose because of the aldehyde function, hexose 6 C atoms, ose carbohydrate

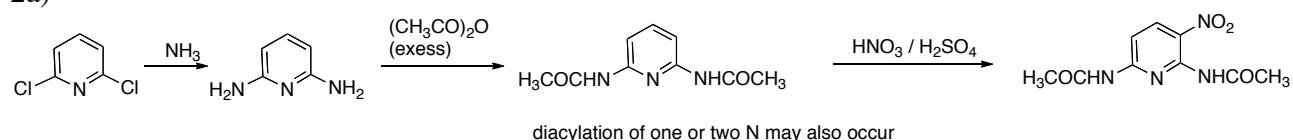


most stab. 3 equatorial subst \neq H

c)

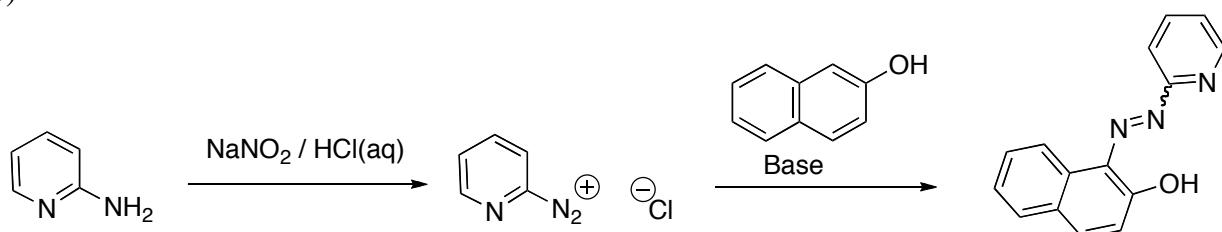


2a)



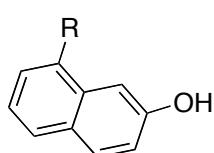
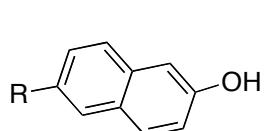
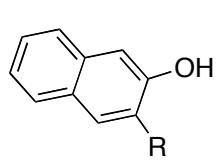
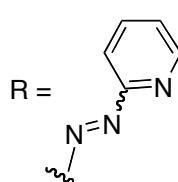
diacylation of one or two N may also occur

b)

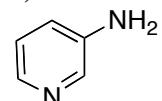


Other logical isomers (OH o/p directing)

E / Z stereochem. not required



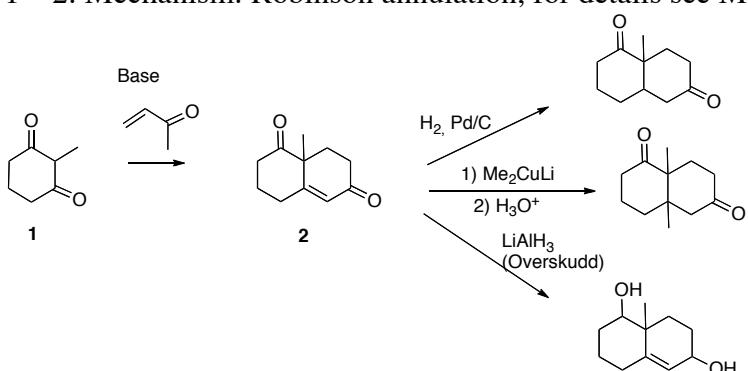
c)



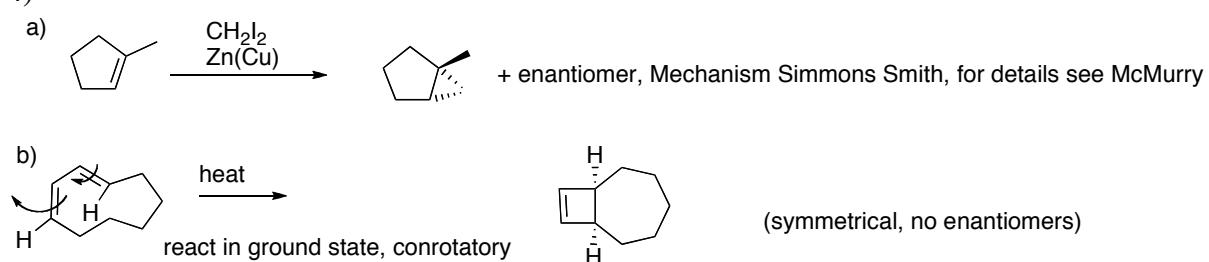
Mechanism: Hoffman rearrangement, for details see McMurry

3)

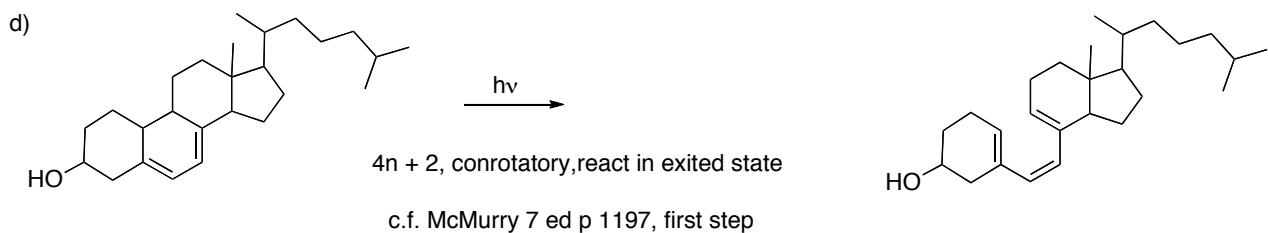
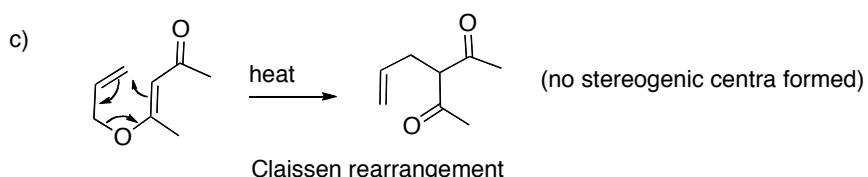
1 – 2: Mechanism: Robinson annulation, for details see McMurry



4)



c.f. ring closing of E;Z diene, McMurry 7 ed, Fig 30.4



5)

