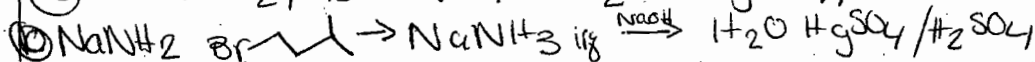
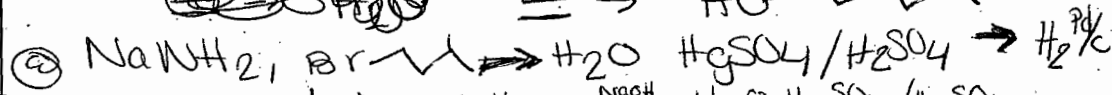
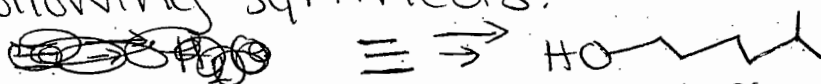


Test #2 Dr. Colonna 11/20/09

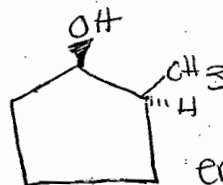
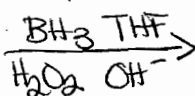
① Which of the following alkynes gives a single ketone in hydroboration of each?

- 2-decyne 4-decyne
 3-decyne 5-decyne

② select the best method to carry off the following synthesis?



③ what's the product of the following?

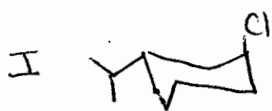


+ ~~enantiomer~~

answer:

Trans-2-methyl-cyclopentanol mixture

④ Which of the following are diastereomers?

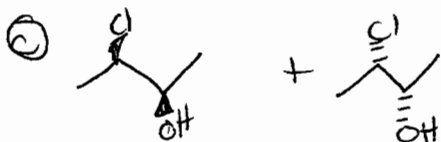
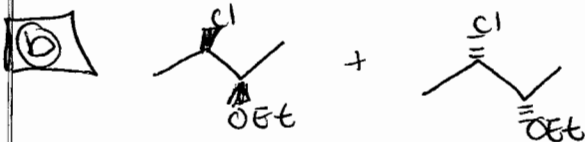
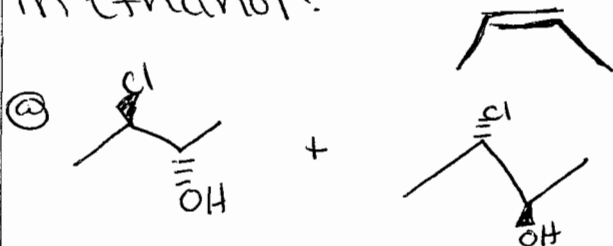


- ② I & II, III & IV
 ③ I & II and III & IV
 ④ I & II
 ① II & IV

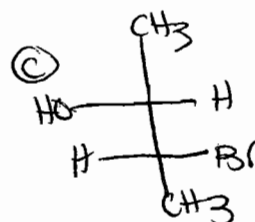
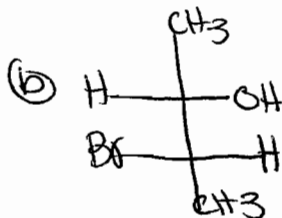
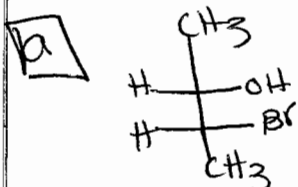
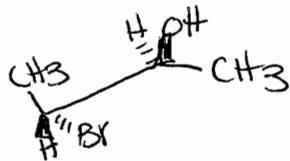
5) Which will be optically active?



6) Which are major products formed when alkenes treated w/ chlorine in ethanol?

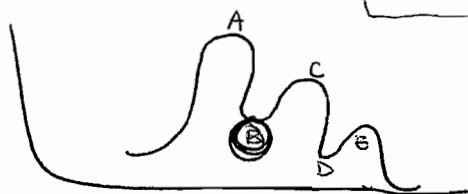
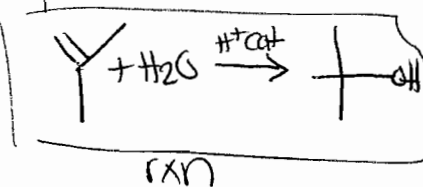
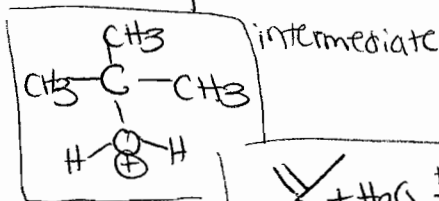


7) Which of the following correspond to the molecule below?

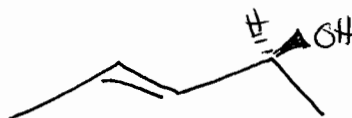
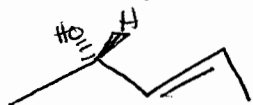


8) How many *carbons question

9) Which point corresponds to the intermediate?



10) What's the relation between the two molecules?



a) identical

b) enantiomers

c) diastereomers

d) const. isomers

11) How many other resonance structures are there with 1 charge of separation?



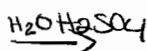
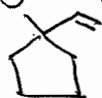
a) 4

b) 5

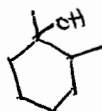
c) 6

d) 3

12) major product of the following rxn is?



a)



b)



c) R+R

d) R+S

e) S+S

f) S+R

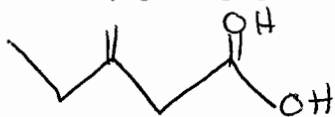
14) Which are meso?



- a) a, b, c
b) b, c

c
d) a

15) When the following is created with H_2/Pd in an acid what is it?

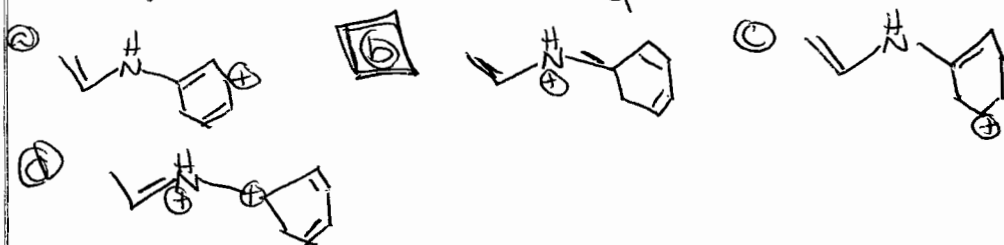


- a) mixture, S is predominate
b) mixture, R is predominate
c) achiral molecule
 d) racemic mixture

16) Which is regioselective?

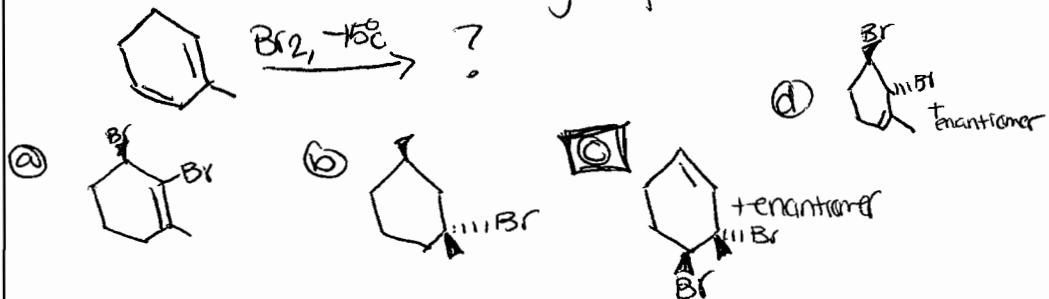
- a) Addition of HBr to cis-2-butene
b) Addition of H_2 Pd/c
 d) Addition of HCl to propene

17) Which resonance contributes most to the resonance hybrid?



18) thrown out

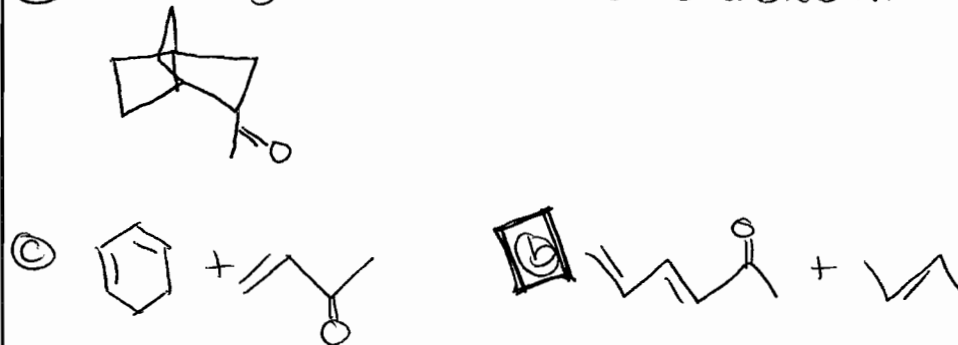
19) Which is the major product?



20) Which is the best dienophile to react w/ cyclopentadiene in a Diels Alder?



21) Which is needed to make a Diels-Alder adduct?



22) Which is the most stable carbocation?

