CHEM 2541
Summer 2018
Quiz 3

(30 points)

Important notes:

- Please use the provided Scantron form for your answers; you can keep the sheet with the questions and can use it as scratch paper
- Do not forget to write your name on the Scantron form
- You will not receive credit for unmarked answers or for more than one mark on answer line
- Your scores will be posted on eGradebook; graded Scantron forms will not be returned to students.

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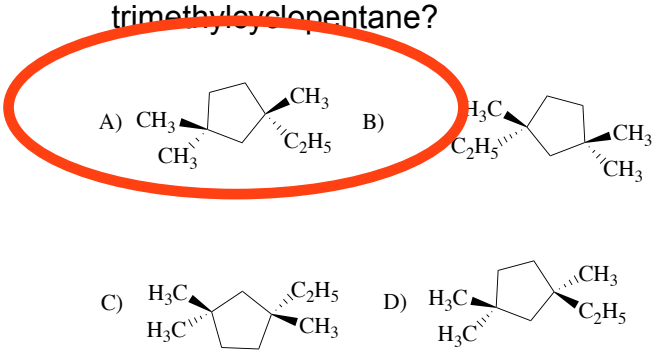
1. Which is the structure of (*S*)-1-ethyl-1,3,3-trimethylcyclopentane?



2. Consider the following orders of priority (highest to lowest). Which order is incorrect?

   A) Br > CH_2Br > CH_2NH_2 > CH_2CH_3

   B) OH > CHO > $CH(CH_3)_2$ > CH_2CH_3

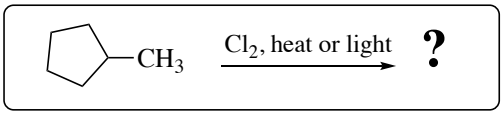
   C) OH > CH_2SH > CH_2OH > CH_3

   D) CH_2NH_2 > CH_2SH > CH_2OH > CH_3

3. Which of the statements below is NOT true about enantiomers?

A. They have the same connectivity of atoms
B. They have the same molecular weight
C. They are superposable mirror images.
D. They have the same molecular formula

4. What is the IUPAC name of the major product for the reaction shown in the box?



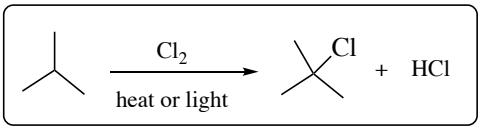
   A) *trans*-1-chloro-2-methylcyclopentane

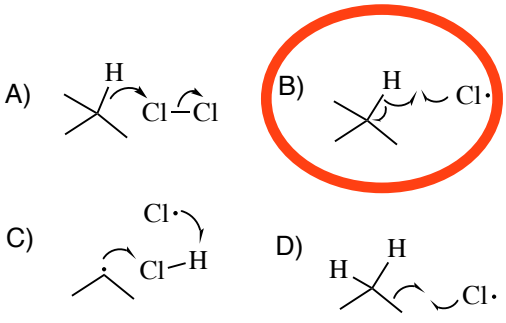
   B) *cis*-1-chloro-2-methylcyclopentane

   C) 1-chloro-3-methylcyclopentane

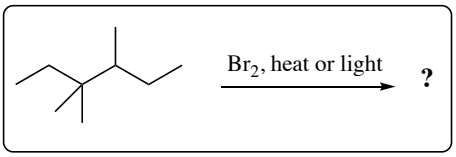
   D) 1-chloro-1-methylcyclopentane

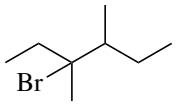
5. Which one of the following represents an important step in the mechanism of the reaction in the box?

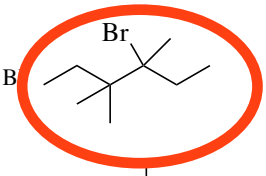


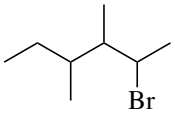


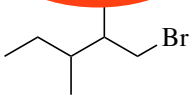
6. What is the main product of the reaction shown in the box?



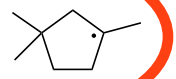
A) 

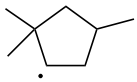
B) 

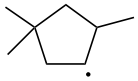
C) 

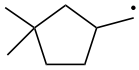
D) 

7. Which one of the following structures is the most stable radical?

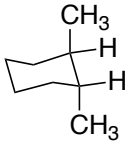
A) 

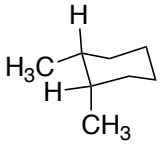
B) 

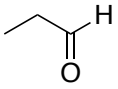
C) 

D) 

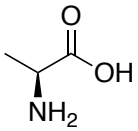
8. Which of the following pairs of structures DOES NOT represent isomers?

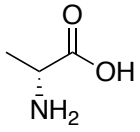
A) 

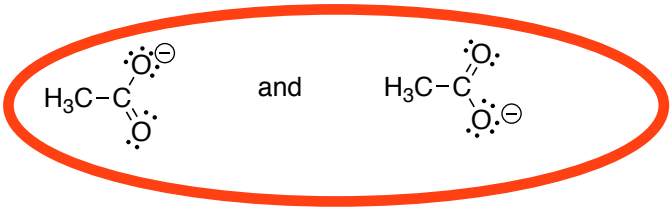
and 

B) 

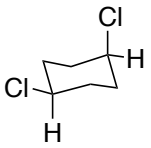
and 

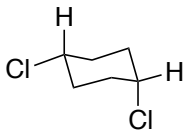
C) 

and 

D) 

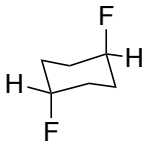
9. Which of the following pairs of structures depicts cis/trans isomers?

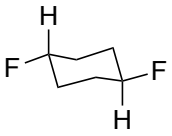
A) 

and 

one chlorine equatorial, one chlorine axial

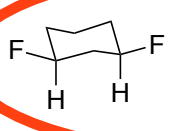
one chlorine axial, one chlorine equatorial

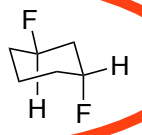
B) 

and 

both flourines axial

both flourines equatorial

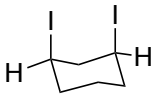
C) 

and 

both flourines equatorial

one flourine equatorial, one flourine axial

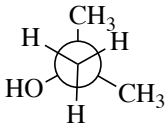
D) 

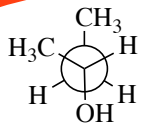
and 

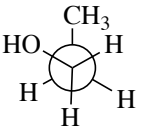
both iodines equatorial

both iodines axial

10. Which of the following Newman projections depicts a chiral compound?

A) 

B) 

C) 

D)