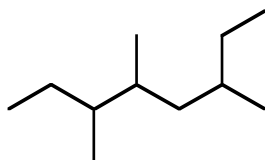


CHM 1321**First Midterm
(Prof. S. Gambarotta)****Feb 15 – 2011****Your Name:** _____**Student #:** _____

Exercise	key
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	

1. Deliver only the solution key in the above table. You can keep the text. The solution key will be posted today on the web.
2. You must respond to all exercises. Blank pages are at the end.

1)

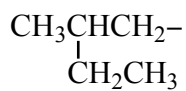


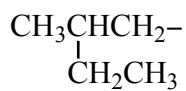
The IUPAC name for  is:

- 6-Ethyl-3,4-dimethylheptane
- 2-Ethyl-4,5-dimethylheptane
- 3,4,6-Trimethyloctane
- 3,5,6-Trimethyloctane
- 2-(1-Methylpropyl)-4-methylhexane

Ans: C

2)

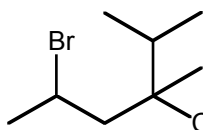


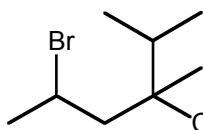
An IUPAC name for the group  is:

- A) Isopentyl
- B) Isoamyl
- C) sec-Butylmethyl
- D) 2-Methylbutyl
- E) 2-Ethylpropyl

Ans: D

3)

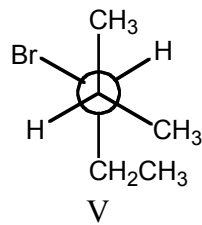
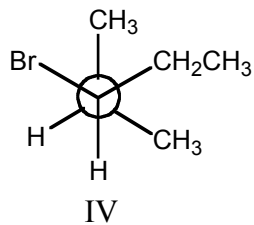
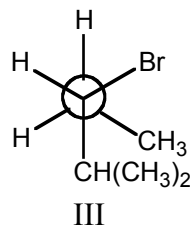
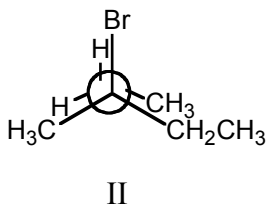
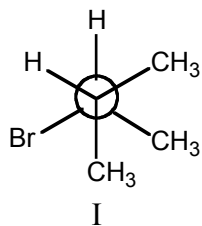


The correct IUPAC name for  is:

- A) 2-Bromo-4-chloro-4-isopropylpentane
- B) 4-Bromo-2-chloro-2-isopropylpentane
- C) 5-Bromo-3-chloro-2,3-dimethylhexane
- D) 2-Bromo-4-chloro-4,5-dimethylhexane
- E) 2-(2-Bromopropyl)-2-chloro-3-methylbutane

Ans: C

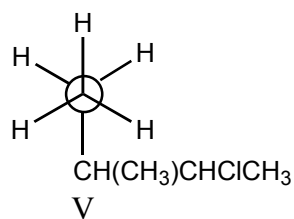
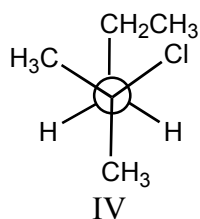
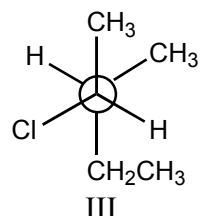
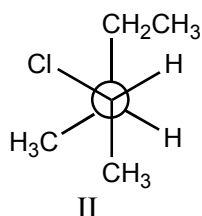
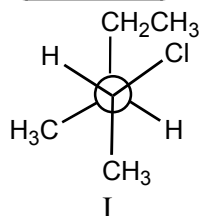
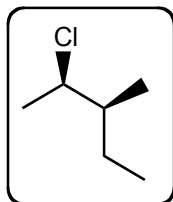
- 4) The most stable conformation of 3-bromo-2-methylpentane, viewed through the C-2—C-3 bond (*i.e.*, C-2 in the front, C-3 in the back):



- A) I
B) II
C) III
D) IV
E) V

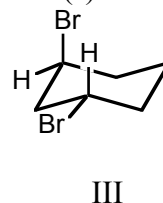
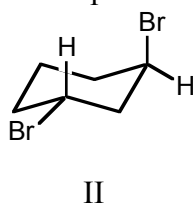
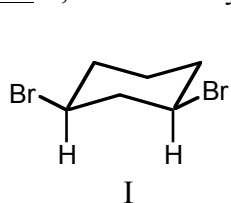
Ans: E

- 5) Which staggered Newman projection(s), looking down the C-2—C-3 bond (C-2 in front and C-3 in back), illustrates the following boxed compound?



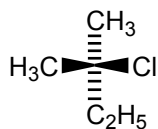
- A) I, II and III
 B) II and V
 C) I and II
 D) V only
 E) None of the above
 Ans: E

- 6) cis-1,3-Dibromocyclohexane is represented by structure(s):

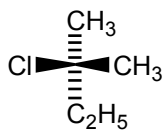


- A) I
 B) II
 C) III
 D) II and III
 E) I and II
 Ans: A

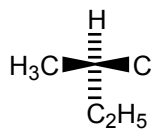
7) Chiral molecules are represented by:



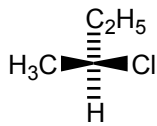
I



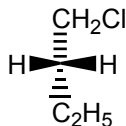
II



III



IV

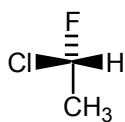


V

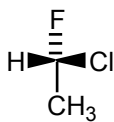
- A) I, II, III, IV and V
 B) I, II, III and IV
 C) I and II
 D) III and IV
 E) IV alone

Ans: D

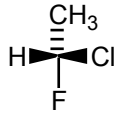
8) Which structure represents (S)-1-chloro-1-fluoroethane?



I



II

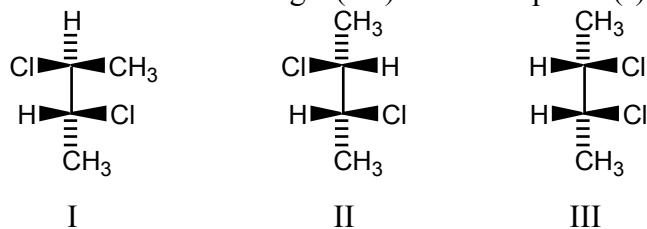


III

- A) I
 B) II
 C) III
 D) More than one of the above
 E) None of the above

Ans: D

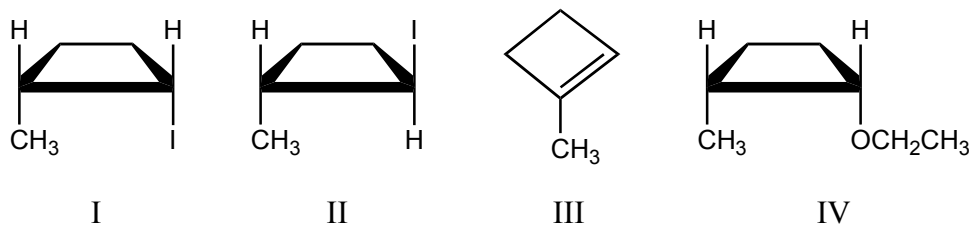
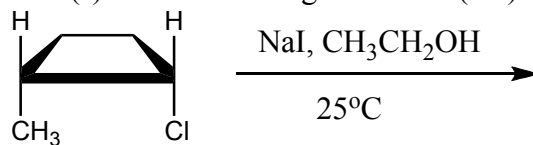
9) Which of the following is(are) *meso* compound(s)?



- A) I
 B) II
 C) III
 D) Both II and III
 E) Both I and III

Ans: E

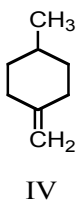
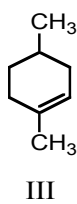
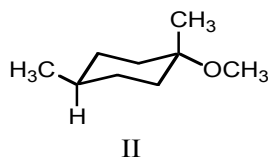
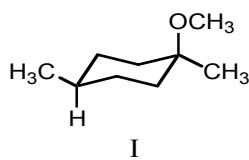
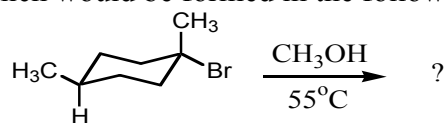
10) The major product(s) of the following reaction is(are):



- A) I
 B) II
 C) III
 D) IV
 E) Equal amounts of I and II

Ans: B

11) Which would be formed in the following reaction?



- A) I
 B) II
 C) III
 D) IV
 E) All of the above

Ans: E

