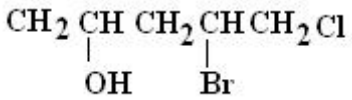
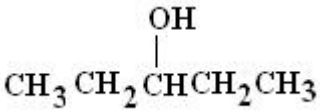
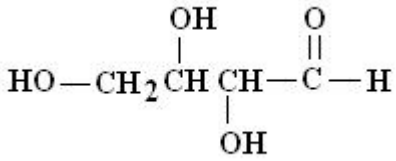
REVIEW QUESTIONS

Chapter 26

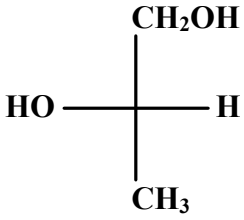
1. Identify any chiral carbon(s) in each compound shown below:

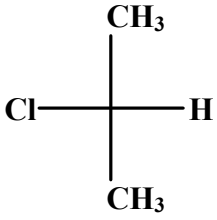
a) 

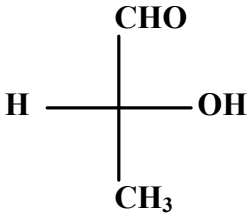
b) 

c) 

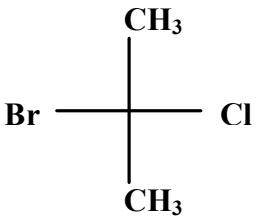
2. Determine if each of the Fisher projections shown below is a chiral compound. If so, draw the mirror image.

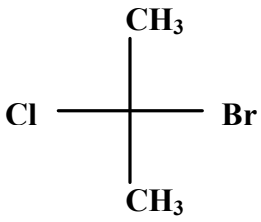
a) 

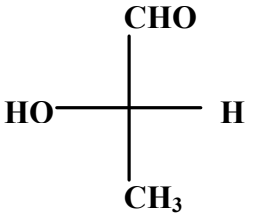
b) 

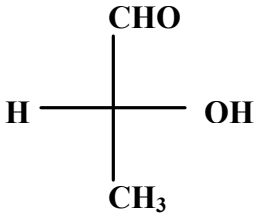
c) 

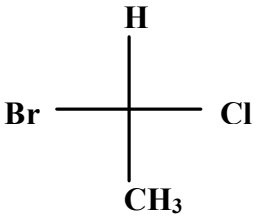
3. Indicate whether each pair of Fisher projections represent enantiomers or identical structures:

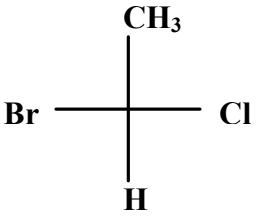
a) 

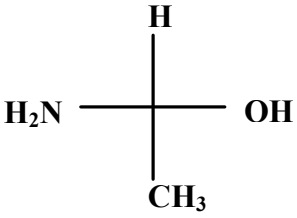
and 

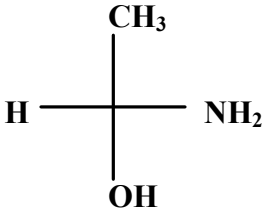
b) 

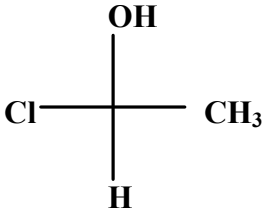
and 

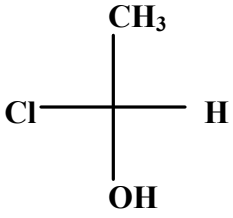
c) 

and 

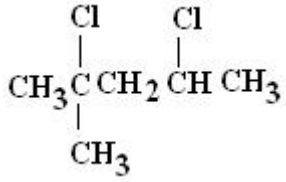
d) 

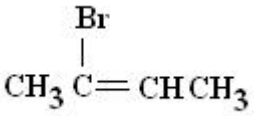
and 

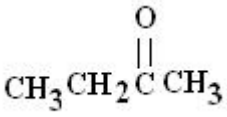
e) 

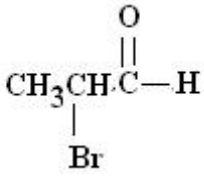
and 

4. Identify each compound below as chiral or achiral. If chiral, indicate the chiral carbon.

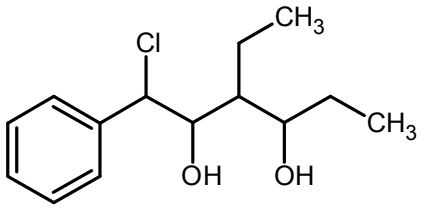
a) 

b) 

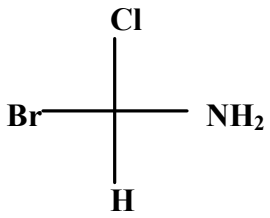
c) 

d) 

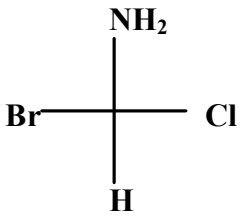
5. How many chiral carbons does the compound shown below possess? How many stereoisomers can this compound have?



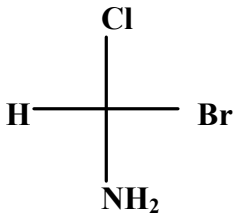
6. Three of the structures shown below are the same compound. The other is the enantiomer. Which is the enantiomer?



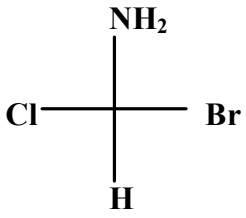
(a)



(b)



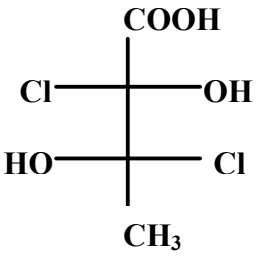
(c)



(d)

7. Draw all the stereoisomers possible for the structures below. Identify enantiomer pairs, diastereomer pairs and meso compounds.

a)



b)