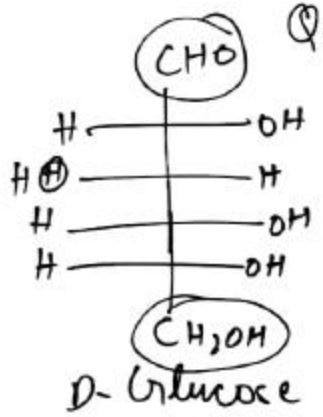
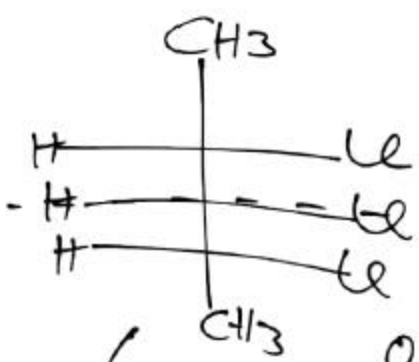
Case III

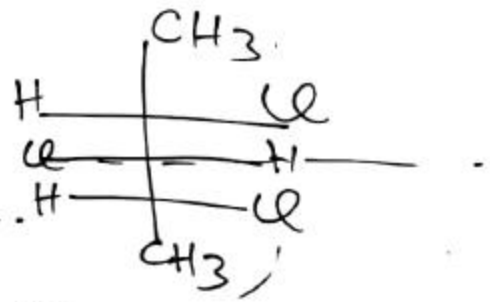
When one stereoisomer is symmetrical and compound has odd no. of chiral centre.



D-Glucose

Q. Total S.I of Glucose $= 2^4 = 16$





optically active

Total $m = 2^{\frac{n-1}{2}}$

$= 4$ $= 2^1$

$= 2$

$a = 2^{3-1} - 2^{\frac{3-1}{2}}$

$= 2^2 - 2^1 = 2$

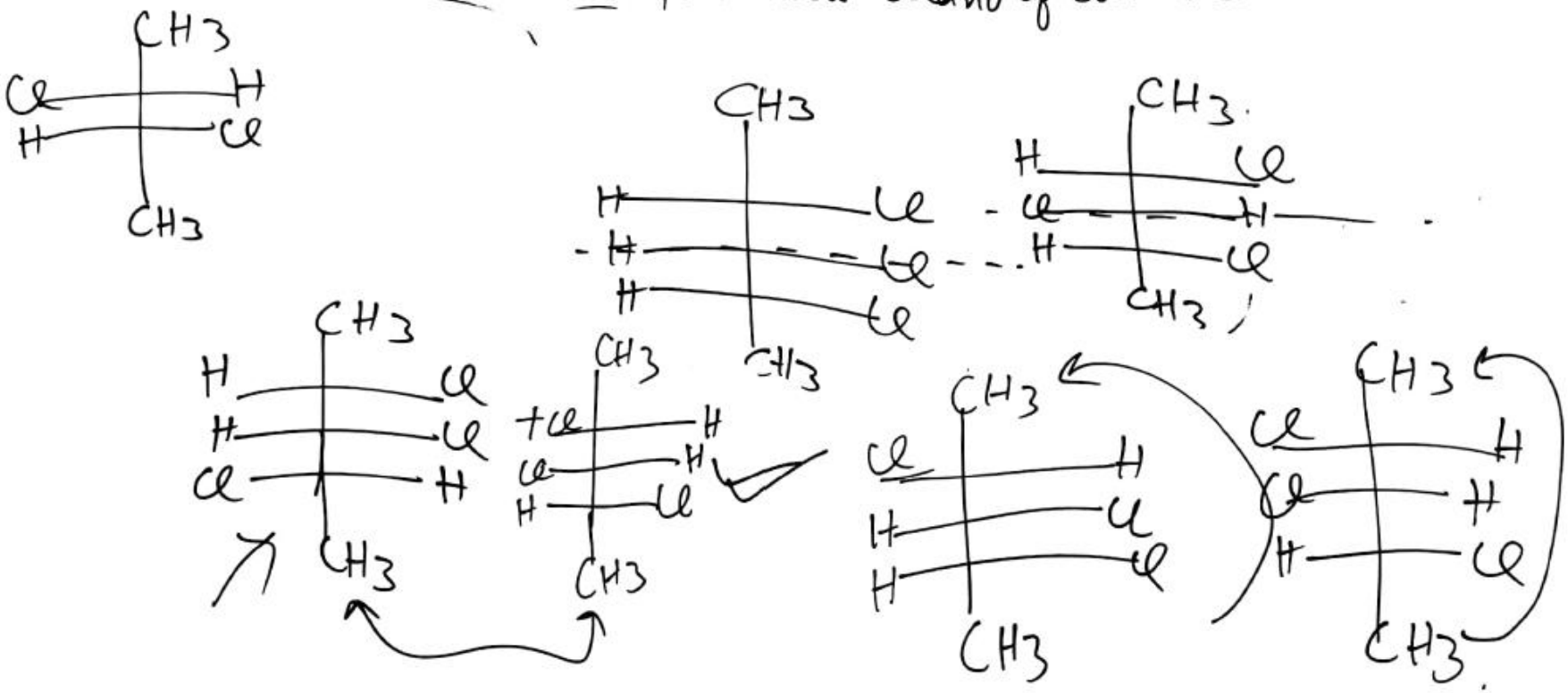
$a = 2^{n-1} - 2^{\frac{n-1}{2}}$

meso $= m = 2^{\frac{n-1}{2}}$

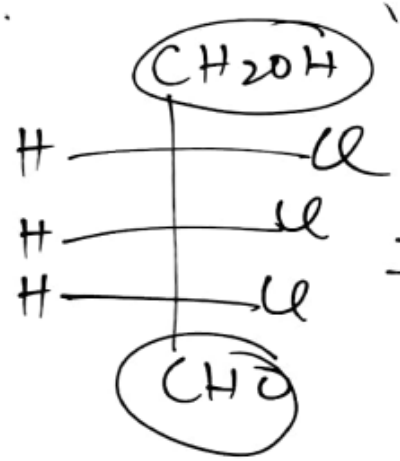
Total $= 2^{n-1}$

Case III

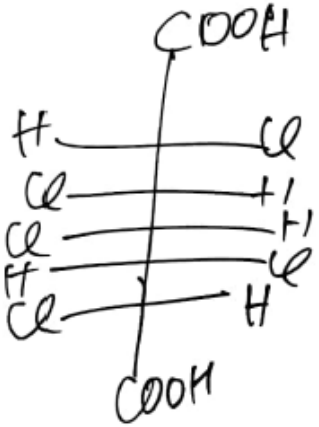
When one stereoisomer is symmetrical and compound has odd no. of chiral centre.



Case III When one stereoisomer is symmetrical and compound has odd no. of chiral centre



$= 2^3 = 8$

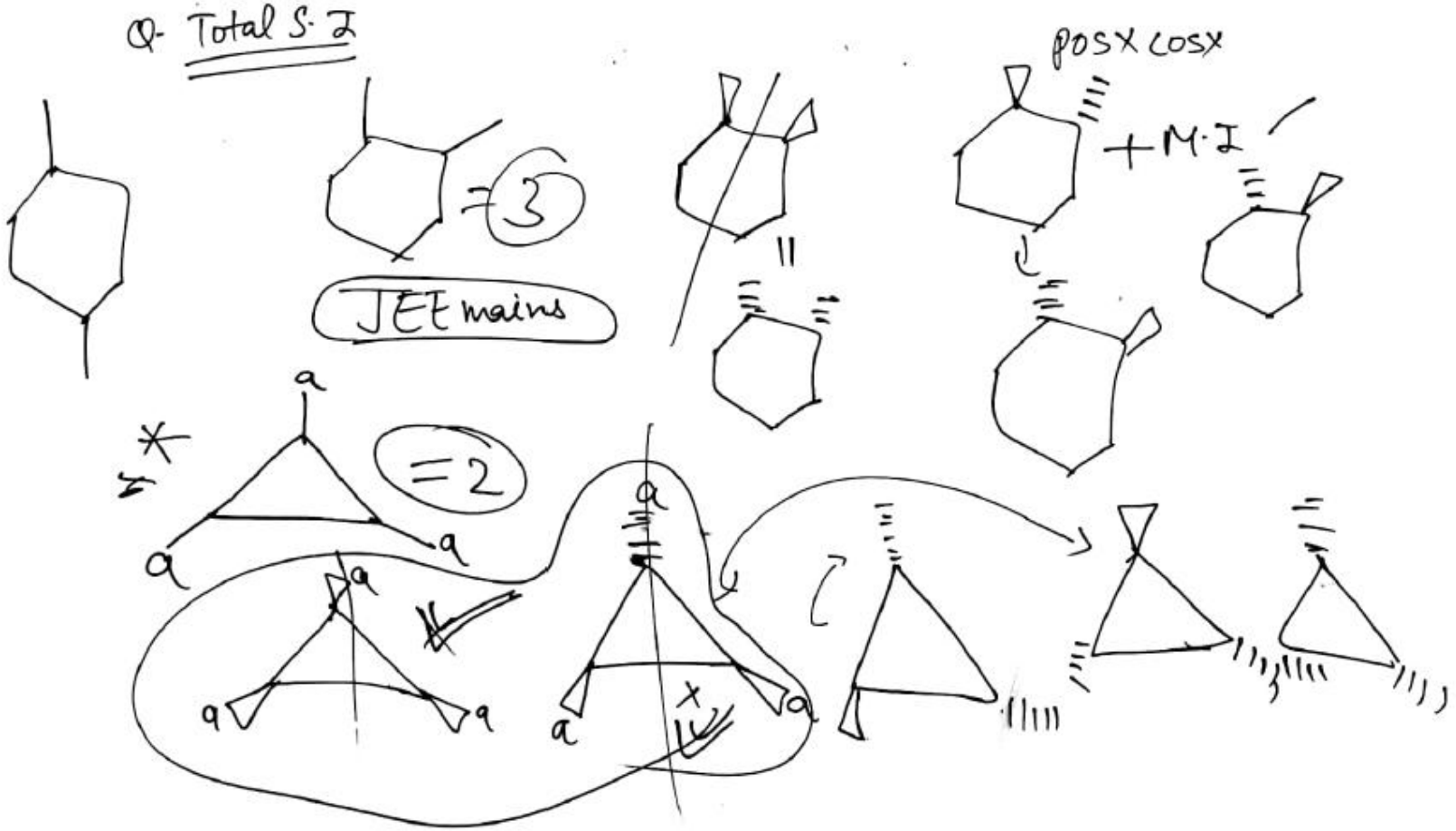


Case III

$2^{5-1} = 16$

$\times 2^{5-1}$

Q. Total S.I



Case II

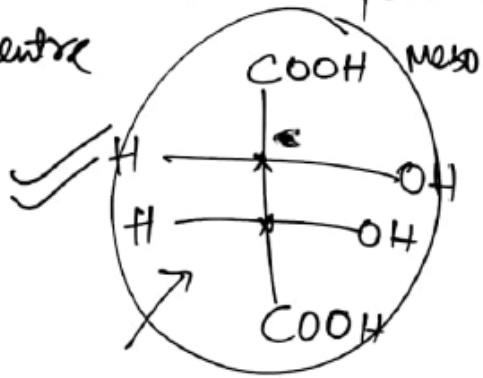
When one Stereoisomer is Symmetrical and compound has even no. of chiral centre

n = even (no. of chiral centre)

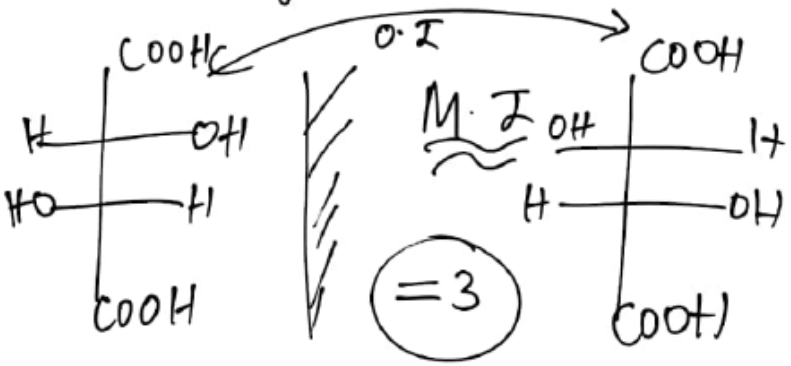
$a = 2^{n-1}$

$m = 2^{n/2-1}$

Total = a + m



meso



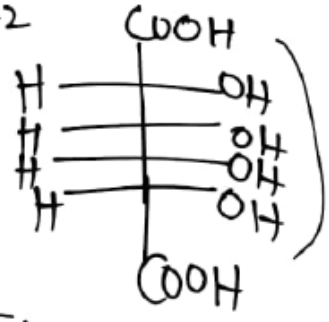
= 3

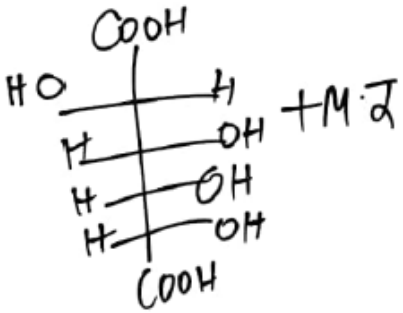
For n = 2

$a = 2^{2-1} = 2$

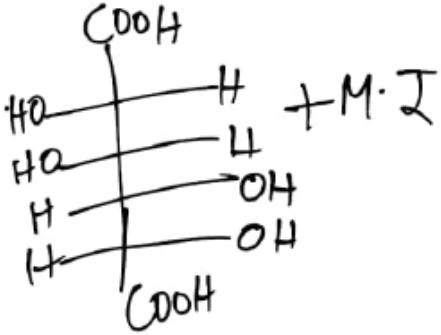
$m = 2^{2/2-1} = 2^0 = 1$

Total = 3





+M.I



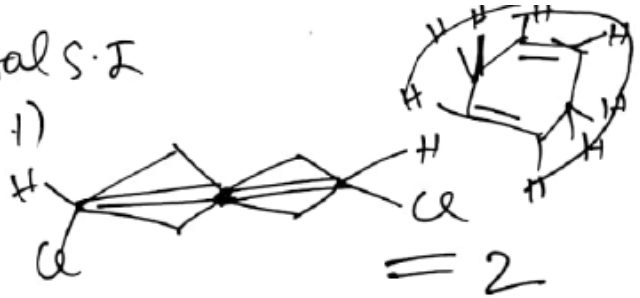
+M.I

~~For~~ $a = 2^{4-1} = 8$ $m = 2^{4/2-1} = 2^1 = 2$

Total = 10

Total S.I

1)

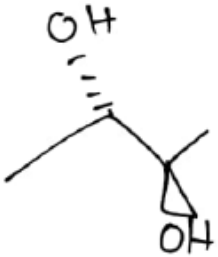


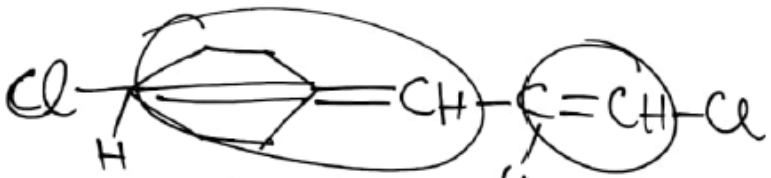
= 2

2)

= 3

3)

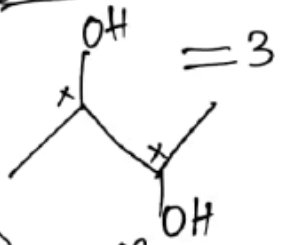




4)

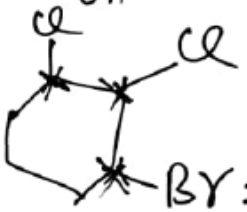
2π + 6-C+8 | 140°

5)



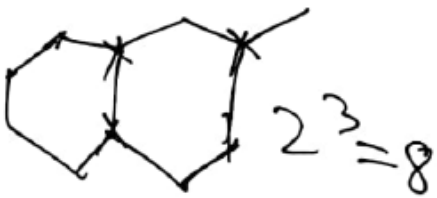
= 3

6)



Br = 2^3 = 8

7)

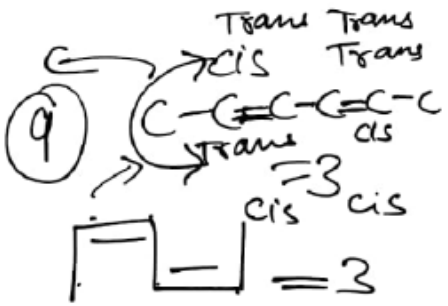


2^3 = 8

8)

= 4

9)



= 3

10)

= 4