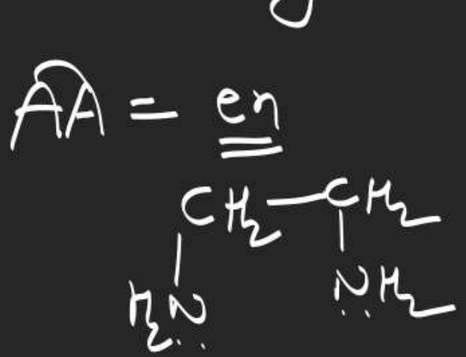
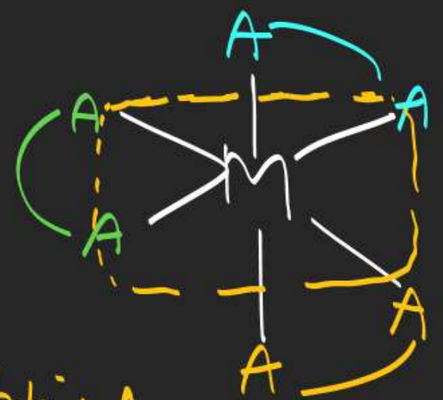
Nishant Jindal

$[M(AA)_3]$

AA = symm bidentate ligand

AA = en



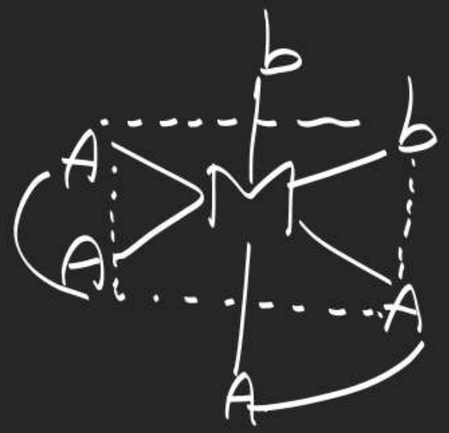


optical active

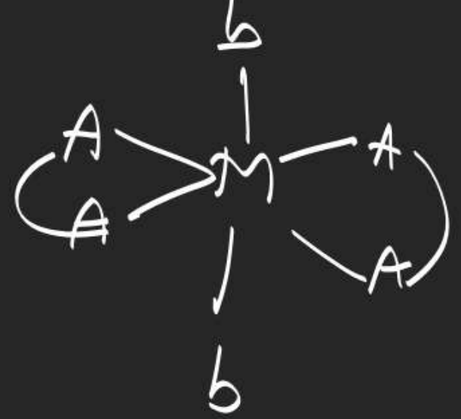
20.A

Stereo = 2

$[M(AA)_2b_2]$



Cis



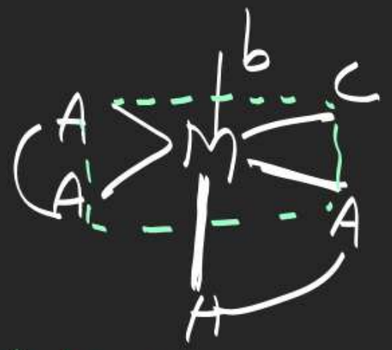
Trans

G.I = 2 − $\sum^{Cis}$ / $\sum^{Trans}$

optical $3\sum^{2D.A}_{1D.I}$

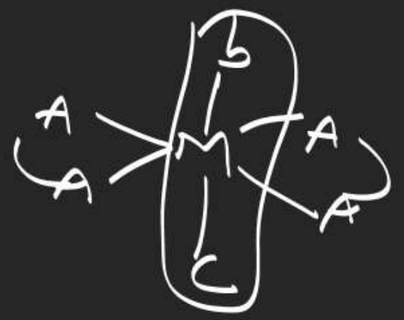
& toro = 3

$[M(AA)_2bc]$



(W.r.t bc) cis

optical active



Trans W.r.t bc

optical Inactive

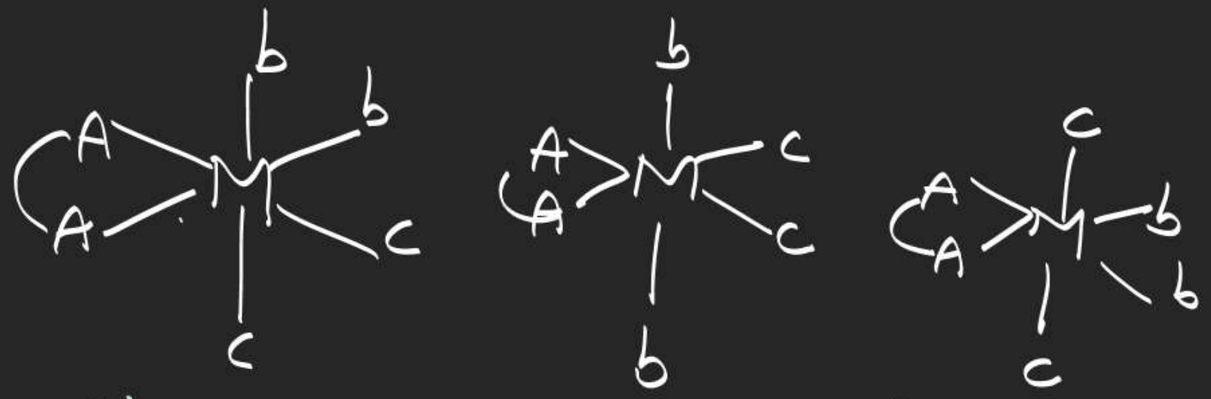
G.I = 2 ⟨ cis
trans

optical = 3 ⟨ 2O.A
1O.I

Stereo = 3

Nishant Jindal

$[M(AA)b_2c_2]$



Cis

G.I = 3 − [1 cis, 2 Trans]

Optical = 4 − [2 O.A, 2 O.I]

Stereo = 4

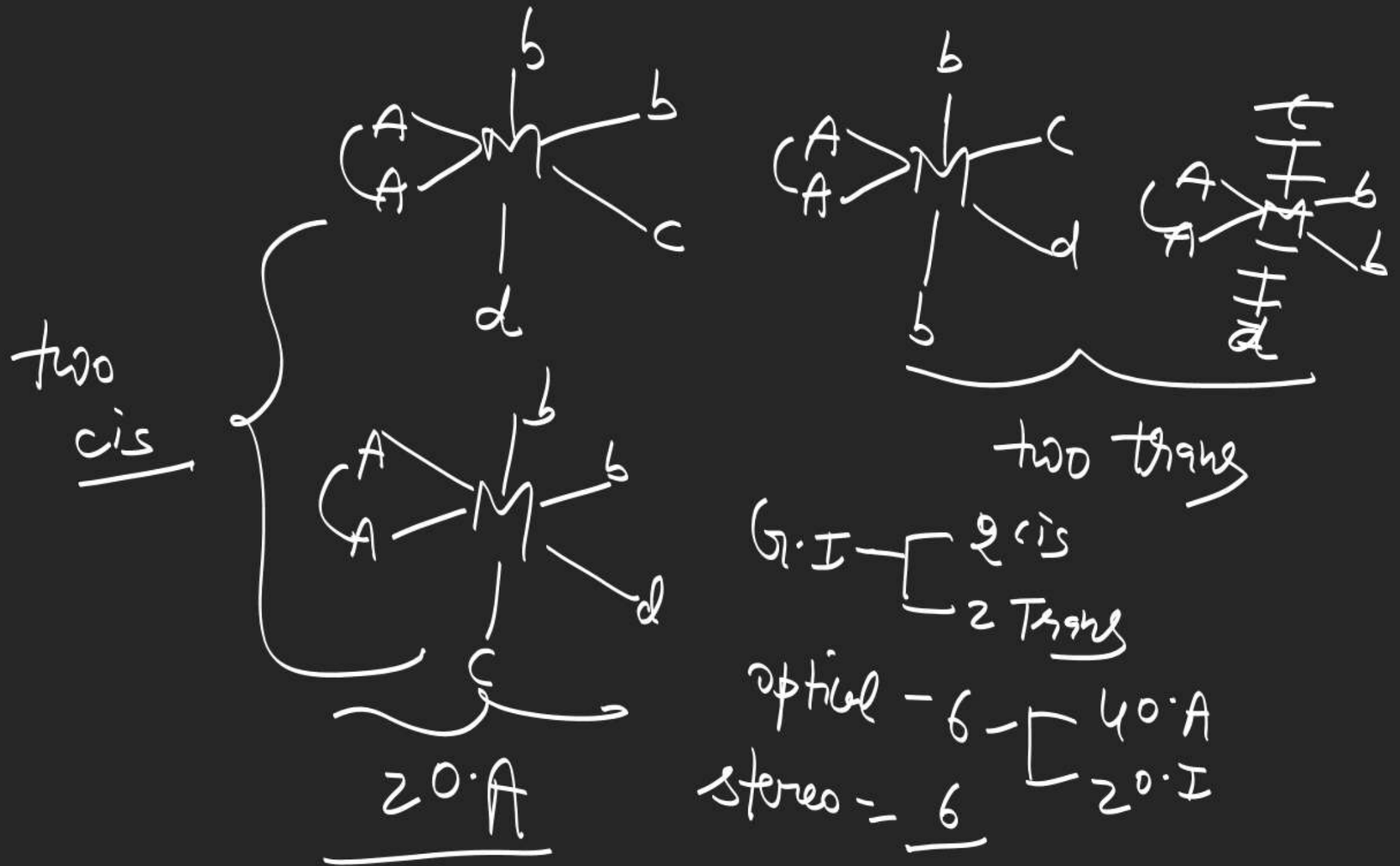
two trans

(w.r.t bb) (w.r.t cc)

Optical Inactive

Nishant Jindal

$[M(AA)b_2cd]$



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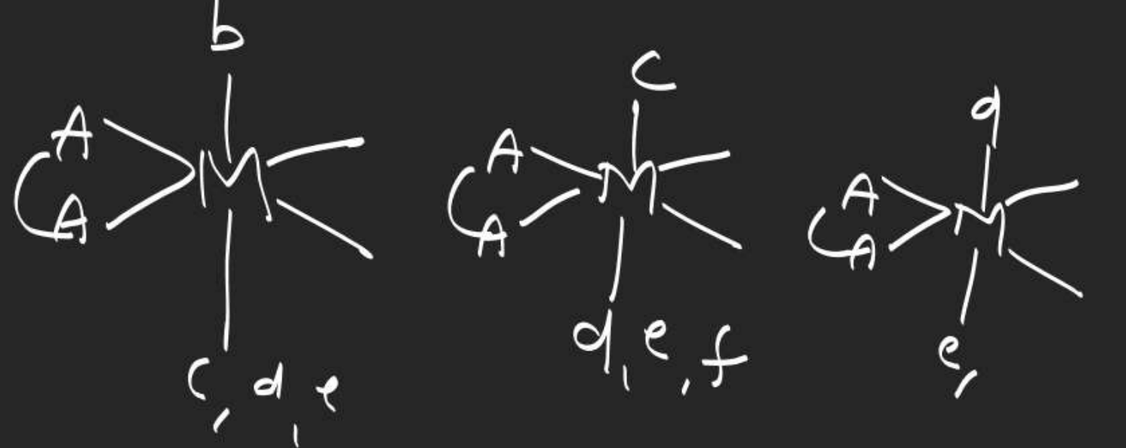
$[M(AA)bcde]$



3 2 1 = 6

G.I = 6

Optical = 120 A

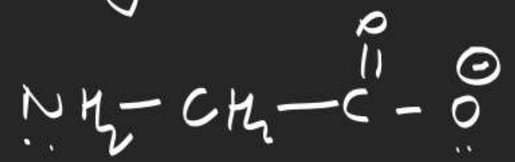
Steric = 12

Nishant Jindal

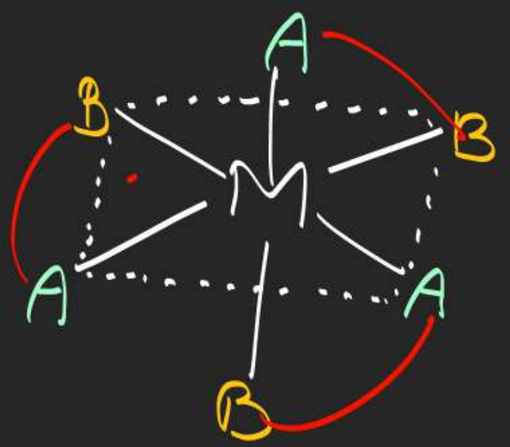
$[M(AB)_3]$

AB = unsymm bidentate ligand

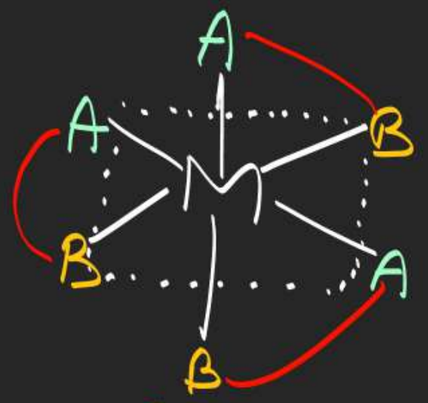
AB = gly



Nishant Jindal



Cis



Trans

O.A

O.A

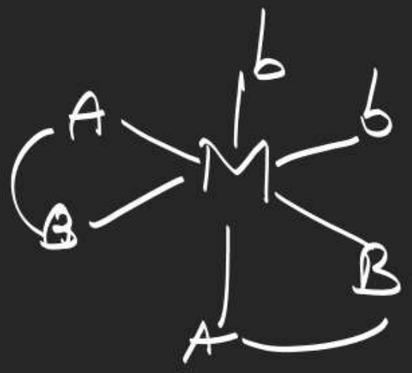
$G.I = 2 - I^{cis}_{Trans}$

optical = 4 O.A

Stereo = 4

Nishant Jindal

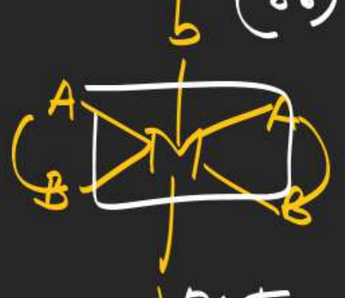
$[M(AB)_2b_2]$



Cis

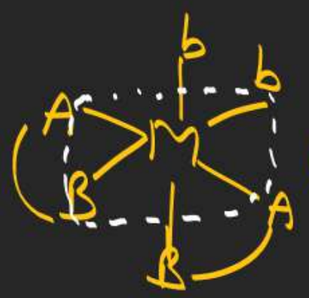
O.A

Trans w.r.t (bb)



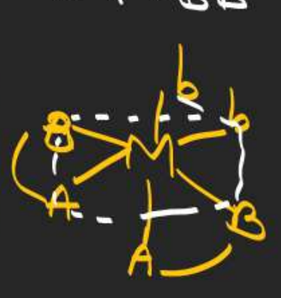
O.I

w.r.t AA



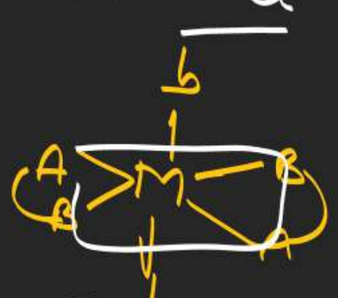
O.A

w.r.t BB



O.A

w.r.t all



O.I

4 Trans

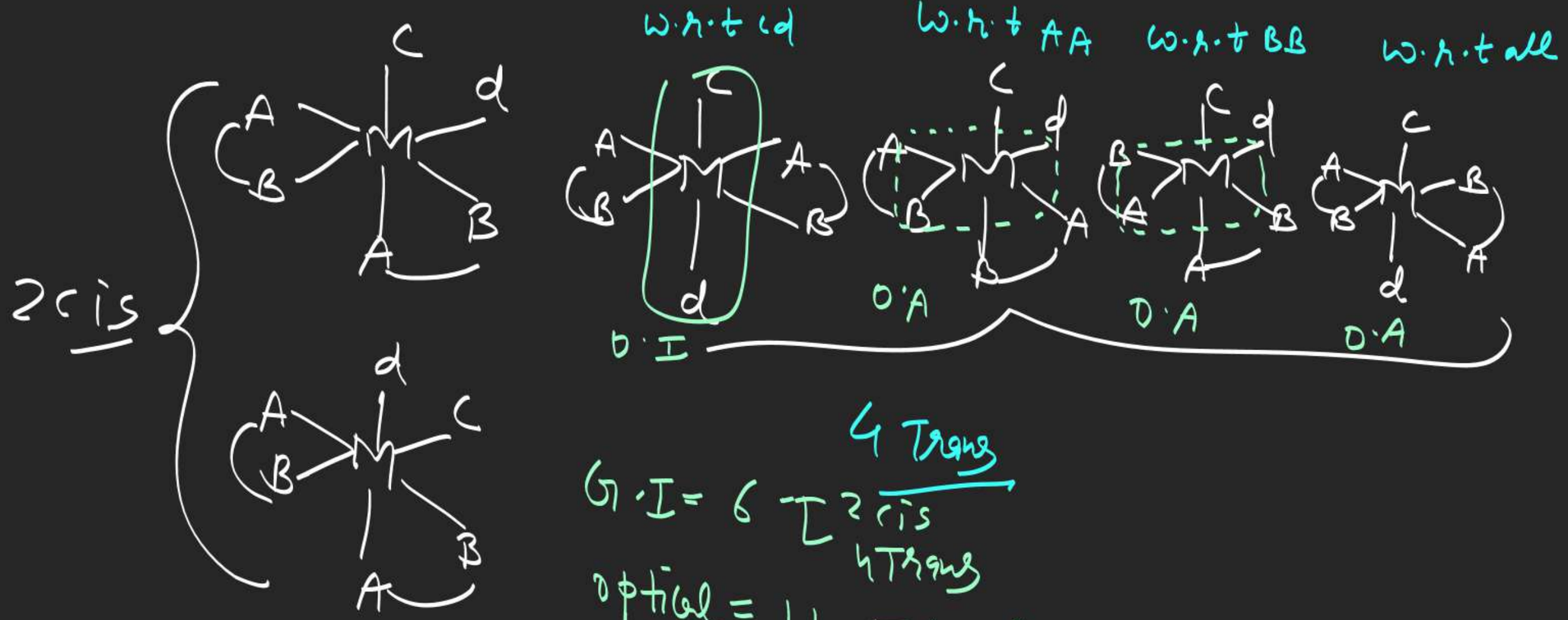
G.I → 5 — 1 cis, 4 Trans

optical = 8 — 6 O.A, 2 O.I

Stereo = 8

Nishant Jindal

$[M(AB)_2Cd]$



4 Trans

G.I = 6 − 2 cis

4 Trans

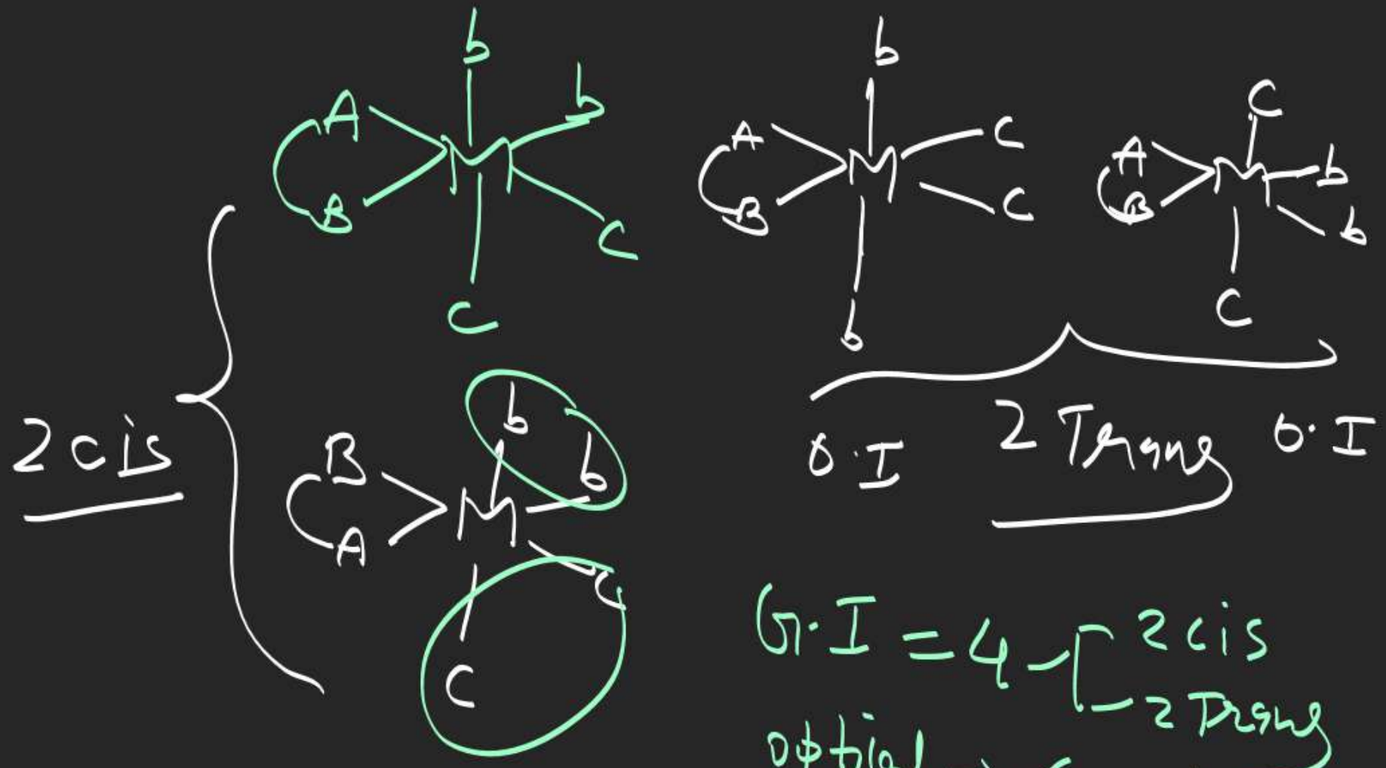
Optical = 11 − 10 D.A

10 D.I

Stereo = 4

Nishant Jindal

$[M(AB)b_2c_2]$



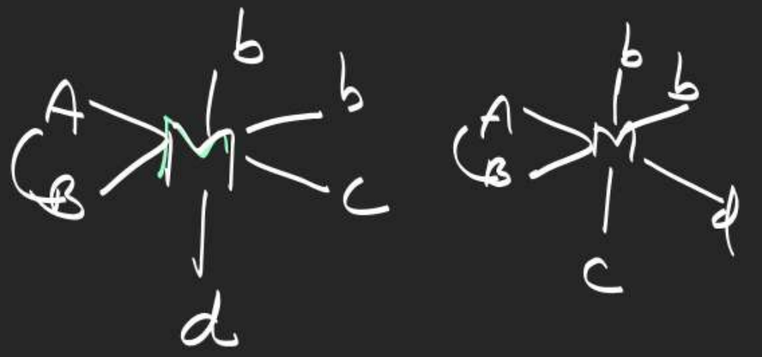
G.I = 4 − [2 cis / 2 Trans]

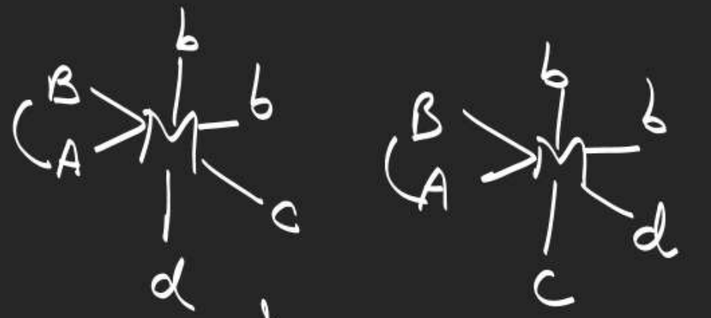
Optical ⇒ 6 − [4 0.A / 2 0.I]

Stereo = 6

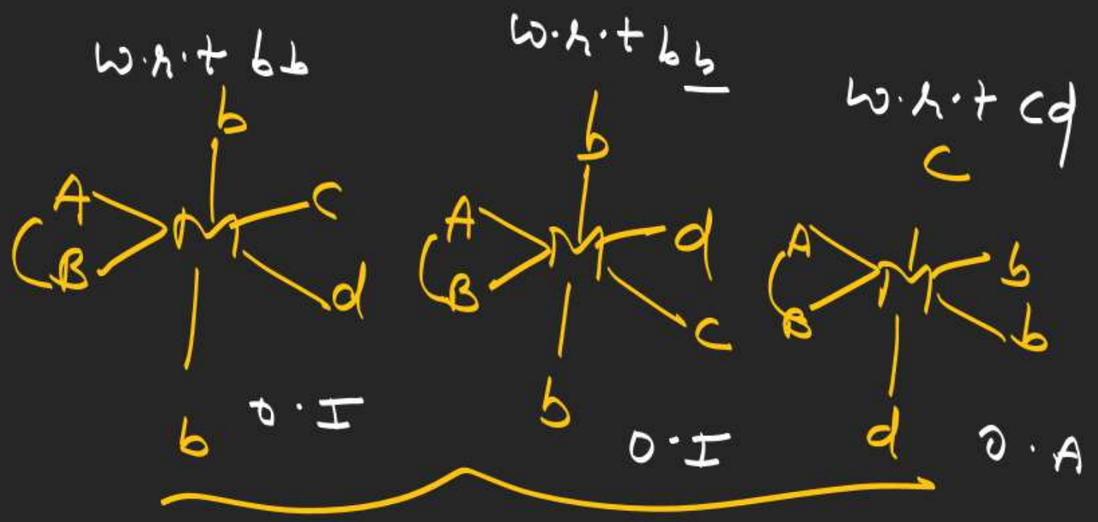
Nishant Jindal

$M(AB)b_2cd$





4 Cis



3 Trans

G.I = 7 − [4 cis, 3 Trans]

Optical = 12 − [100 · A, 20 · I]

Stereo = 12

[M(AB) b c d e]

G.I = 12

Optical = 240.A

Stereo = 24