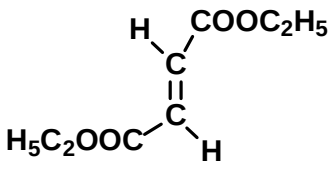
BAREM DE CORECTARE

Subiectul I (2 x 10 = 20 puncte)

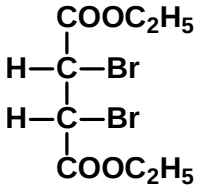
1	2	3	4	5	6	7	8	9	10
B	C	A	A	D	C	A	E	C	D

Subiectul II (25 de puncte)

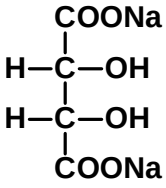
A1. 6 substante x 1pct = 6 pct.



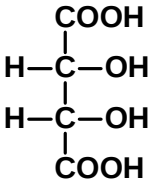
A



B

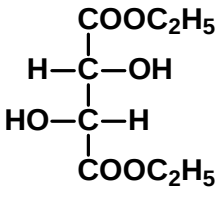


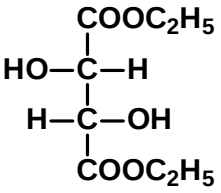
F



G

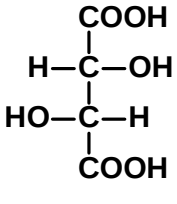
forme *mezo*

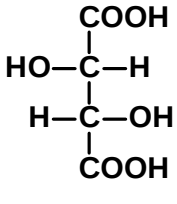




C

amestec racemic





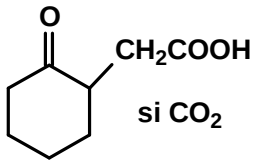
E

amestec racemic

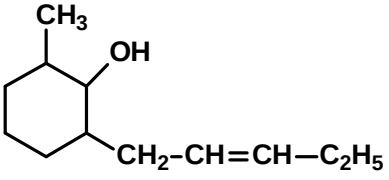
A2. reactia 2 - aditie *trans* (AE) → forma mezo 3 pct.
reactia 3 - aditie *cis* (AE) → amestec racemic 2 pct.

A3. G si E sunt diastereoizomeri *mezo; d,l* (mezo, o pereche de enantiomeri) 1 pct

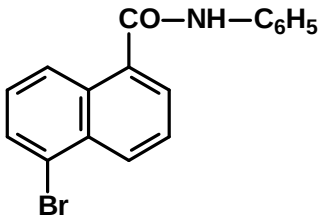
B. Produsii de reactie sunt:



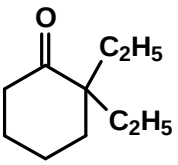
1



2



3



4

se acorda 1 pct pentru produsii fiecarei reactii (total 4 pct)

Mecanisme: reactia 2 transpozitie Claisen

reactia 3 transpozitie Beckmann
reactia 4 transpozitie pinacolica
se acorda 3 pct pentru fiecare mecanism (total 9 pct)

Subiectul III (20 pct)

A (12 puncte)
a. A = xiloza 1 pct
B = acid xilozaharic 1 pct
C = treoza 1 pct
D = guloza 0,5 pct
E = idoza 0,5 pct
Formule de perspective 4 x 1 pct = 4 pct

b. degradarea catenei (ecuatiile reactiilor chimice) dupa una dintre metode (Ruff, Weerman, Wohl) 1,5 pct
lungirea catenei (ecuatiile reactiilor chimice) 1 pct

c. reactiile cu HIO_4 (3x0,5 pct = 1,5 pct)

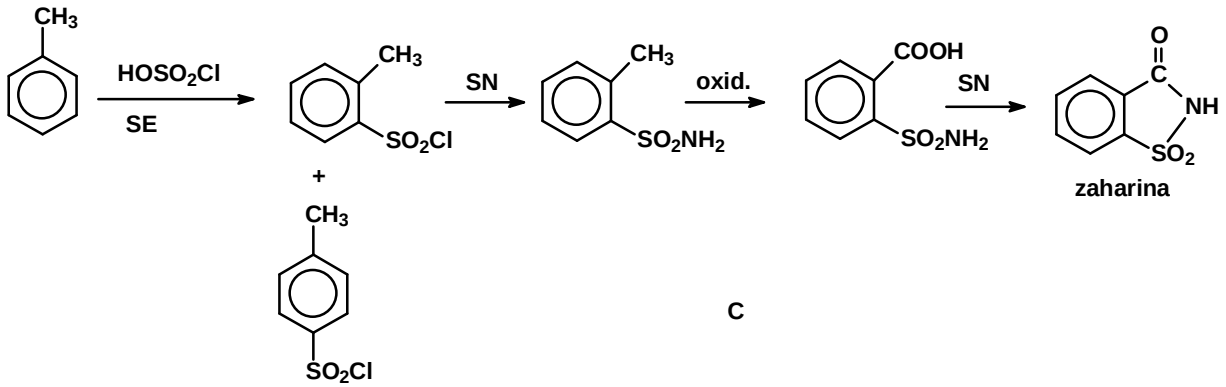
B. (8 puncte)

a. M =159 → valina acilata 1pct
M =174 → glicil-valina 1pct
M =204 → valil-serina 1pct
P = Acil-Val-Gli-Val-Ser (structura) 2pct

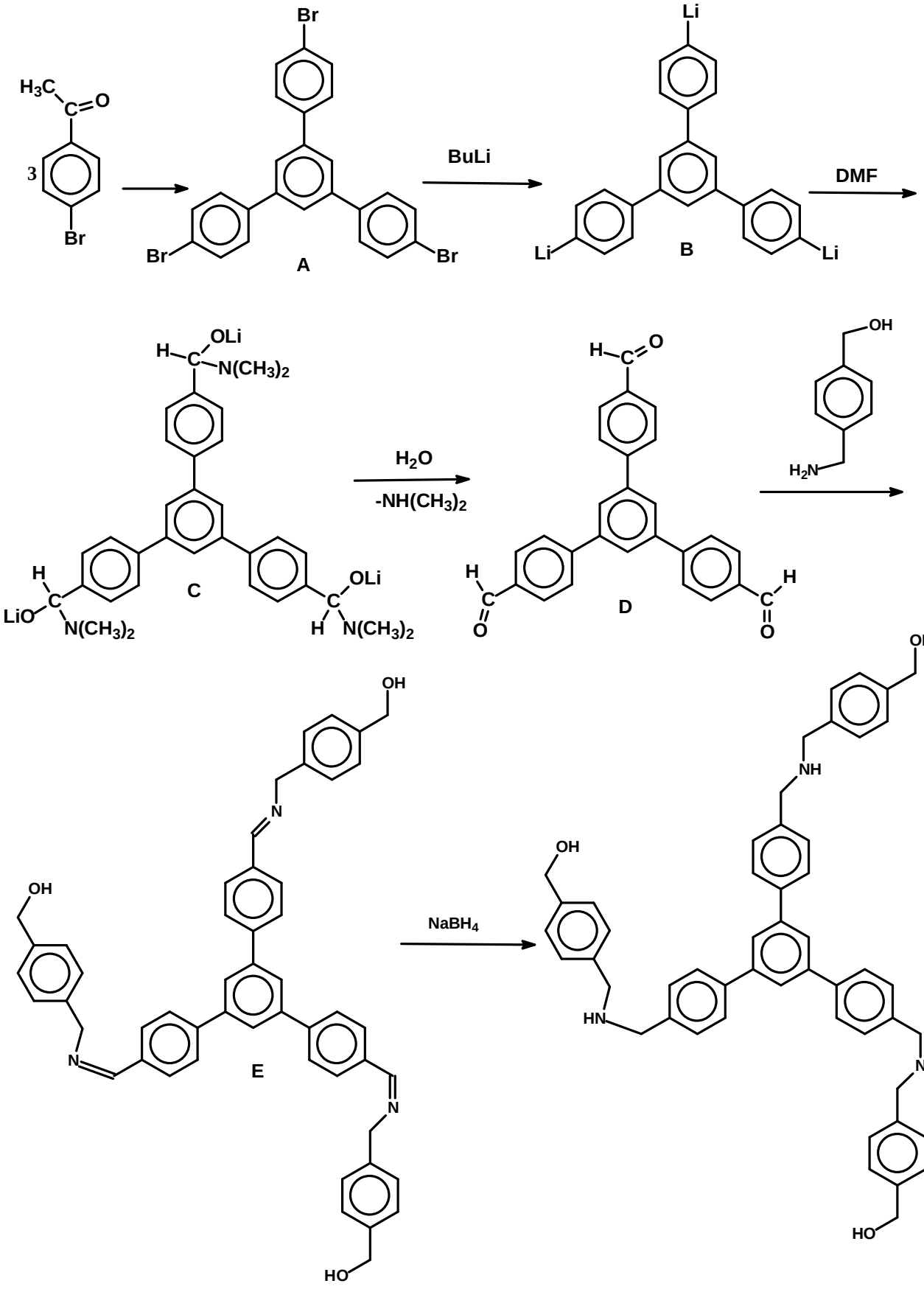
b. obtinerea peptidei in 4 etape :
- blocare NH_2 0,5 pct
- activare COOH 0,5 pct
- condensare si reluarea cicluclui anterior 1 pct
- deblocare amino 0,5 pct

c. 8 stereoizomeri (3 carboni asimetrici) 0,5 pct

Subiectul IV (25 pct)
A. 1,25 puncte pentru fiecare substanta total 5 puncte

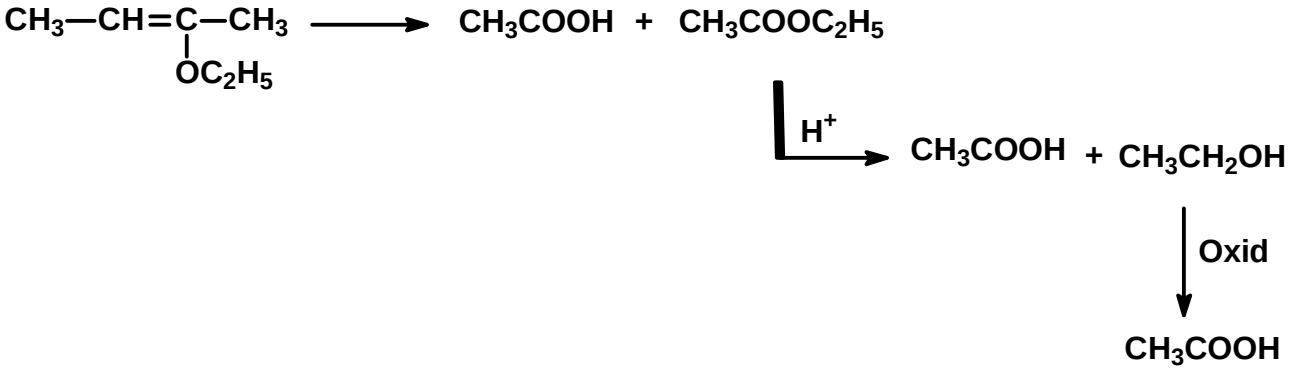


C. 3 puncte pentru fiecare structura (total 15 puncte)



B.

2 puncte pentru structura lui A si 3 puncte pentru reactii



Oficiu: 10 puncte