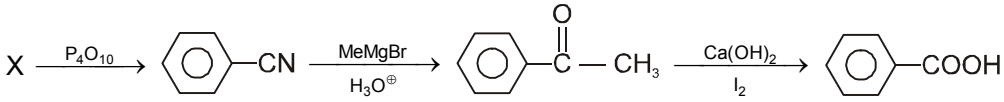
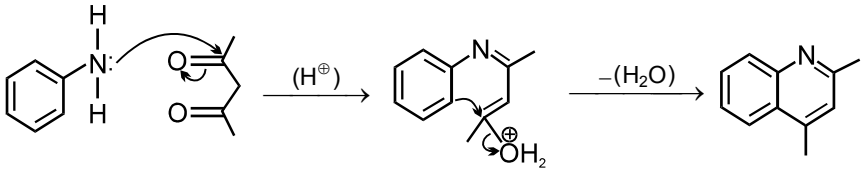
Solution of DPP # 6

TARGET : JEE (ADVANCED) 2015

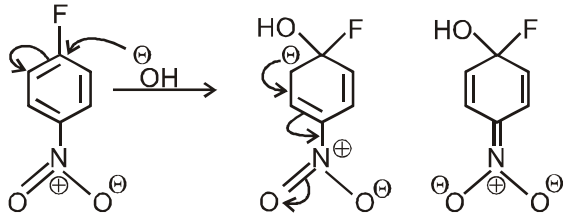
Course : VIJETA & VIJAY (ADP & ADR)

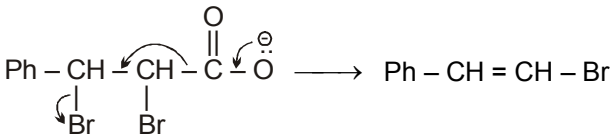
CHEMISTRY

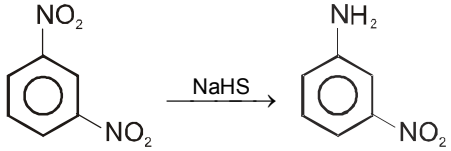
1. 

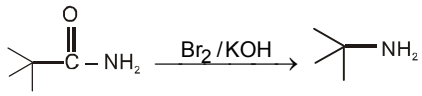
7. 

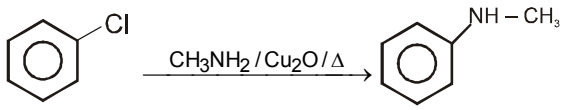
Nucleophilic addition-elimination reaction of amines with carbonyl compounds. The primary aromatic amine generates a quinoline derivative with β-diketones.

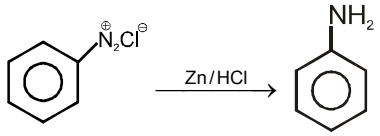
9. 

12. 

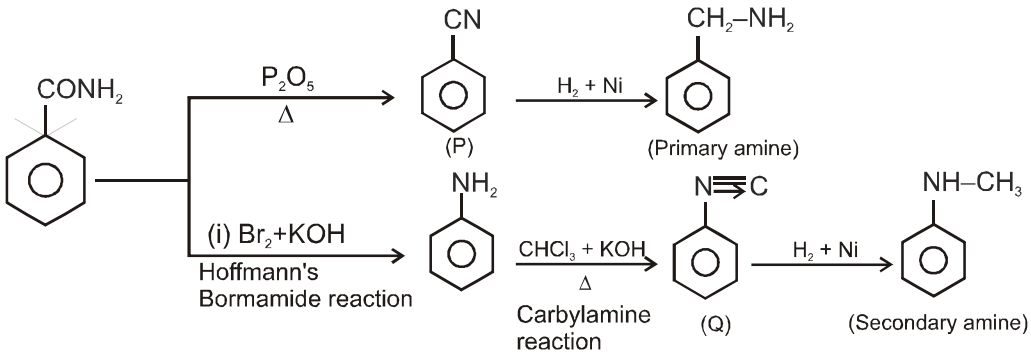
19. 







20.

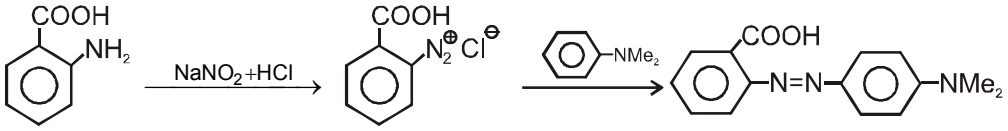


21. $NaHSO_3$ on addition of carbonyl compound forms a salt.

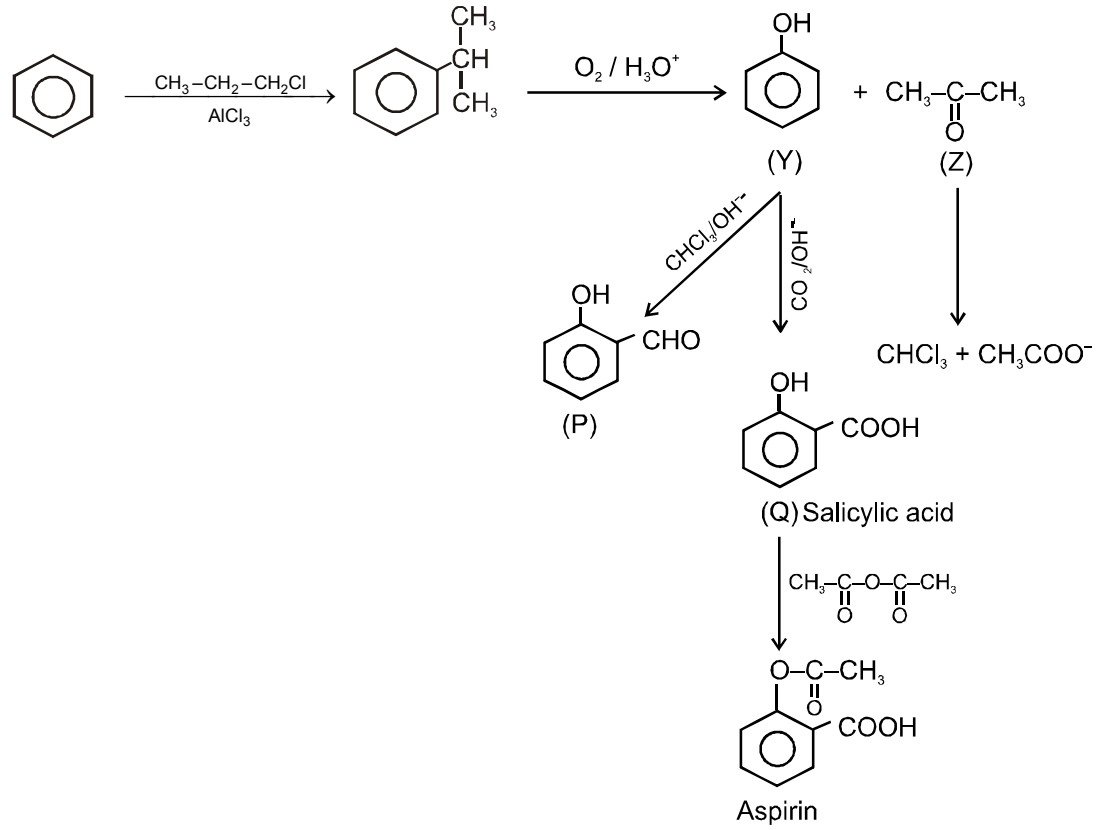
22. Self explanatory.

23. G.R. can not prepared in aqueous solution due to acid base reaction.

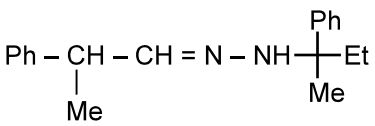
24.



29.

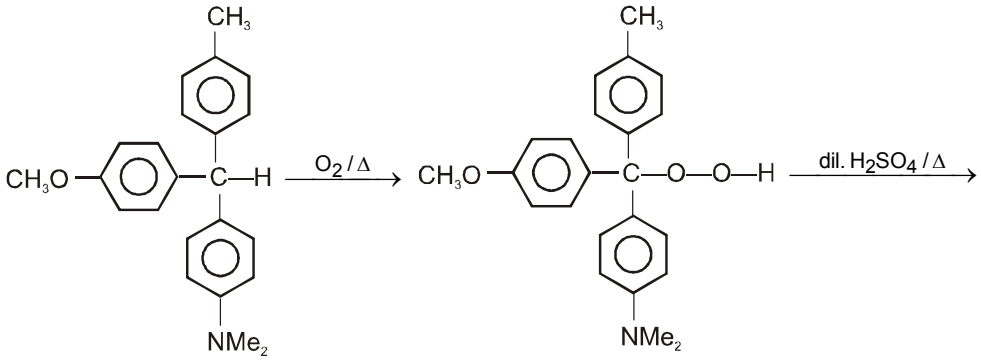


34. The product is :



I = (+, +) (E) II = (+, +) (Z) III = (–, +) (E) IV = (–, +) (Z)

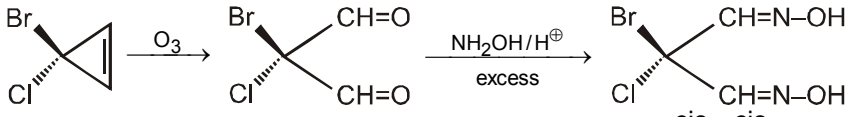
36.



major

[Total product 6]

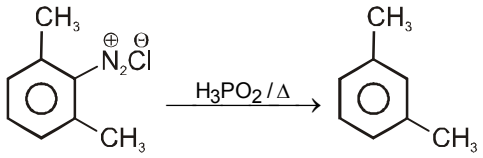
37.



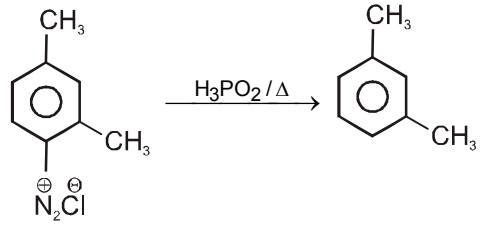
cis - cis
trans - trans
cis R trans
trans S cis

Total isomeric product = 4

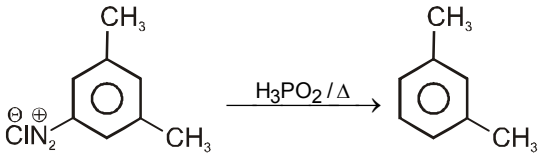
38. (i)



(ii)

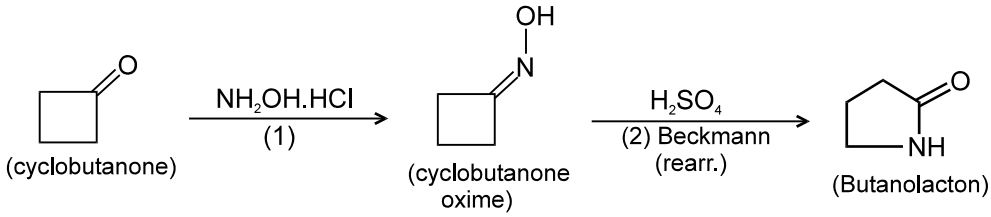


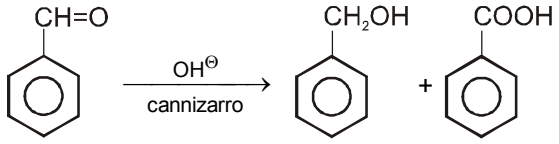
(iii)

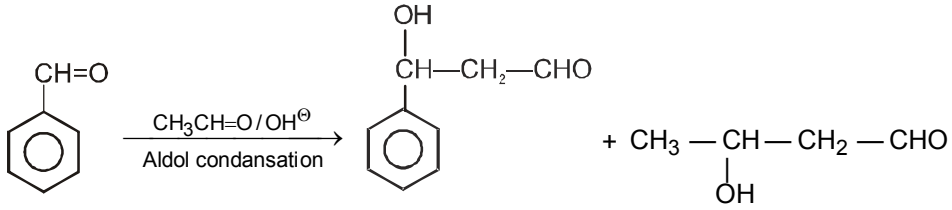


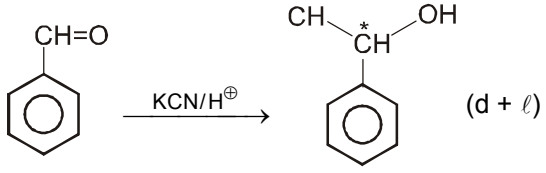
39. (C=O), (–OH), (C≡CH), (COOEt), (COOH)
Total = 5

41.

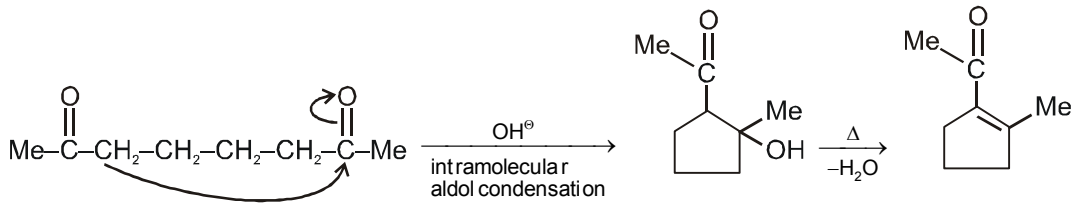


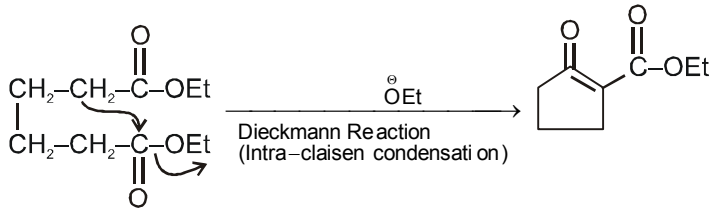
42. (A) 

(B) 

(D) 

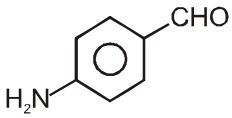
(d + ℓ)

43. (A) 

(B) 

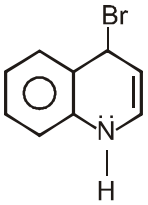
(C) Perkin's condensation reaction.

(D) Benzil-Benzilic acid rearrangement.

45. (A) 

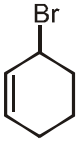
Nu-addition on C=O group,

Electrophilic substitution on ring

(B) 

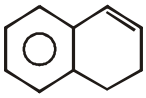
Aliphatic Nu-substitution on C–Br, Elimination of R–X,

Electrophilic substitution on ring.

(C) 

Aliphatic Nu-substitution on C–Br, Elimination of R–X

Electrophilic addition on C=C

(D) 

Electrophilic addition on C=C

Electrophilic substitution on ring.