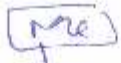
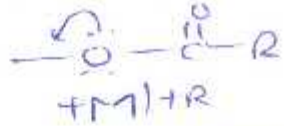
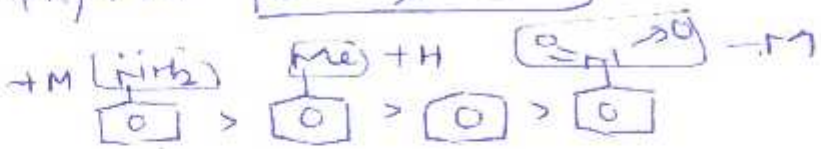
HOME ASSIGNMENT - 1

PART - A (OBJECTIVE)

① (c)  +I, +H
e⊖ rich benzene ring

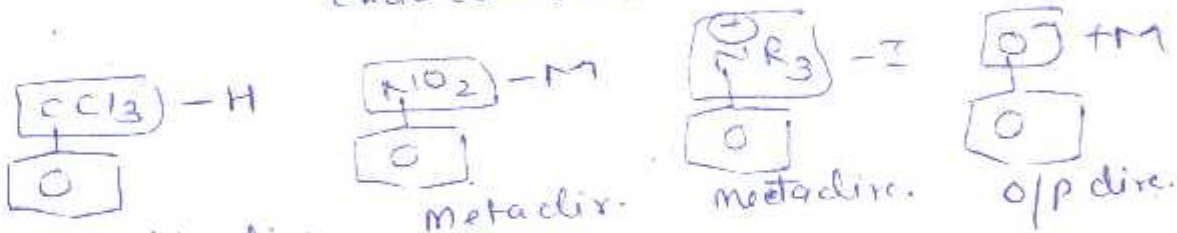
② (d) 
+M, +R

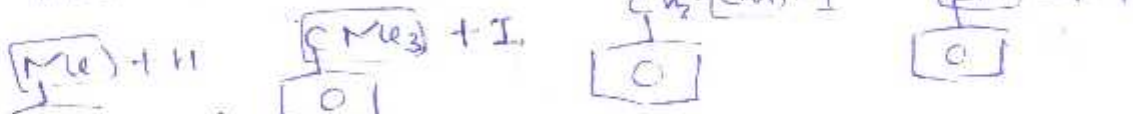
③ (c) +R/+M $O^- > S^-$

④ (d) 
+M (NH2) > +H (Me) > −M (C=O) > −M (NO2)

⑤ (b)

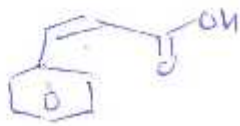
⑥ (a) 
Highly Endo (ΔH = (+)ve)

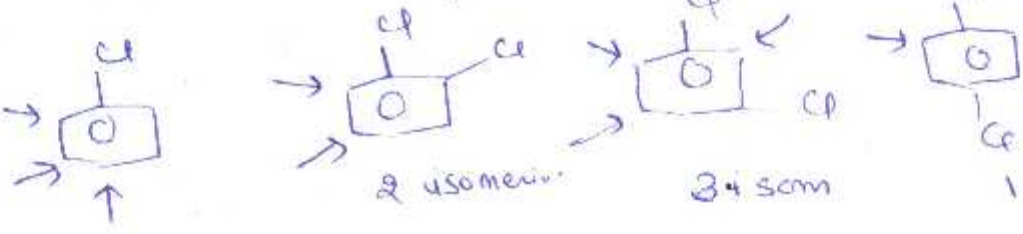
⑦ (b) 
−H, −M, −I, +M
meta directive, Metadir., Meetadirc., o/p dirc.

⑧ (a) 
+H, +I., −I, −M

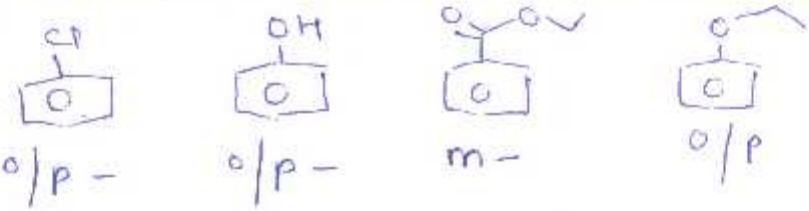
⑨ (a) 
−M

⑩ (d) Rate of ESR ∝ activating gp. (+M, +H, +I

⑪ (d) 
is a deactivating but o/p -directive

⑫ (d) 
3 isomers, 2 isomers, 3 isom, 1 isom.

(13) (c)

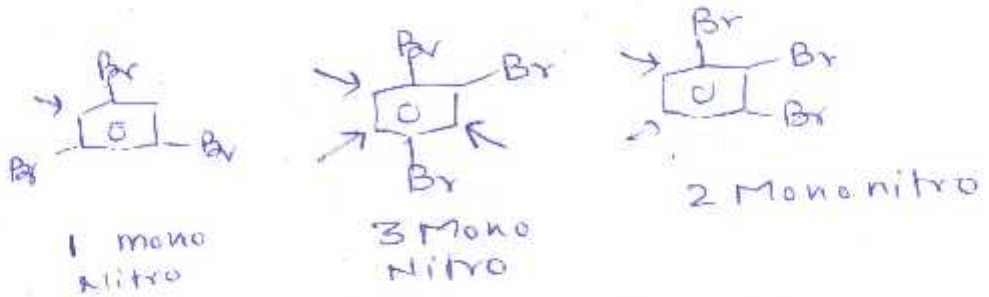


o/p – o/p – m – o/p

(14) (b) $-NH_2 > -OH > -CH_3 > -X$

(15) (b)

(16) (a)



1 mono Nitro

3 Mono Nitro

2 Mononitro

(17) (a) $3\alpha H > 2\alpha H > 1\alpha H > 0\alpha H$

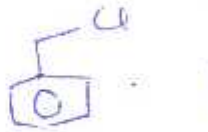
(18) (b) $6\pi e^-$ (Huckel Rule)

(19) (c)

$10\pi e^-$

(20) (c)

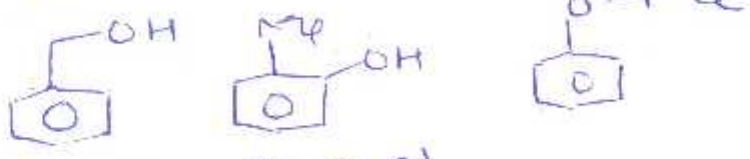
(21) (b)



(o, m, p)

(22) (b)

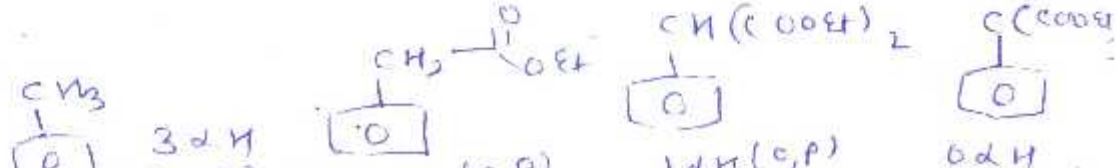
(23) (d)



(o, m, p)

(24) (b) $e^{\ominus}$ rich benzene ring

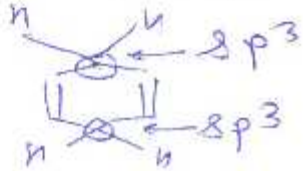
(25) (a)



$3\alpha H$ (o, p) $2\alpha H$ (o, p) $1\alpha H$ (o, p) $0\alpha H$ (meta)

(26) (d)

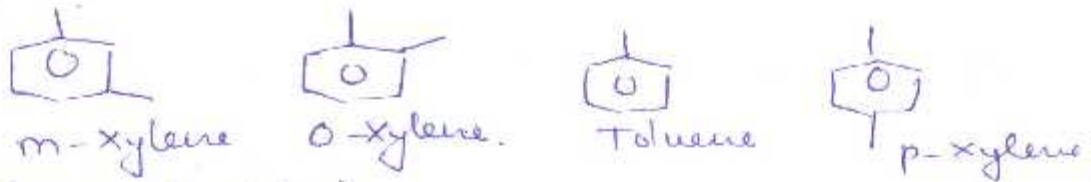
(27) (B)



Non planar (Non aro.)

(28) (D)

(29) (A)



m-xylene (More Nucleophilic) O-xylene. Toluene p-xylene

(30) (B)

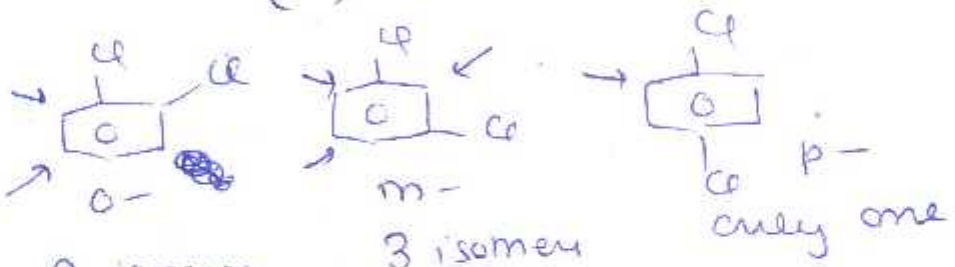
3° carbocation + (Resonance stabilized)

(31) (C)

corrected question

$$C_6H_4Cl_2 + Cl_2 \xrightarrow{Fe} C_6H_3Cl_3$$

(x) (y)

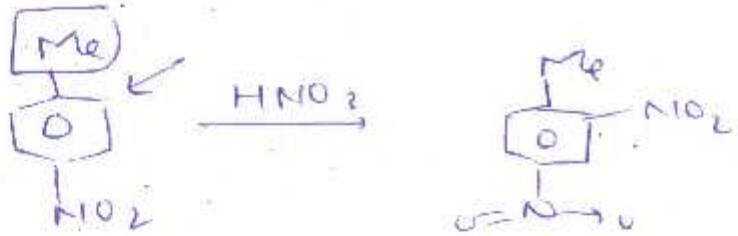


o- m- p-

2 isomer 3 isomer only one

HOME ASSIGNMENT-2

(1) (a)

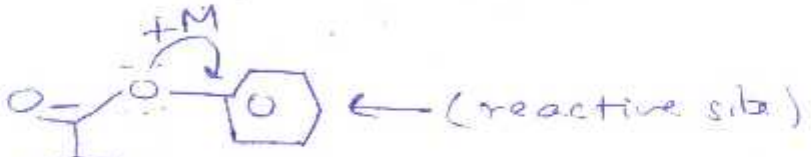


(2) (a)

(3) (c) 9 & 10 positions are more reactive

(4) (b)

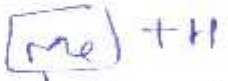
(5) (b)



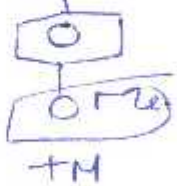
(6) (d) Phenyl benzoate

(7) (a)

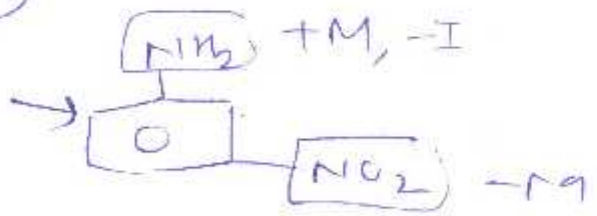
(8) (c)



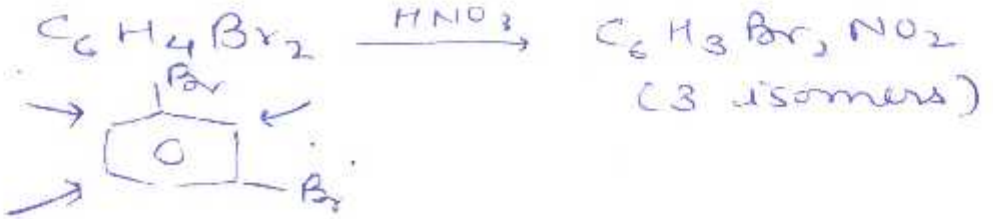
(9) (b)



(10) (b)



(11) (b)



(12) (d)

(13) (c) Same rate

(14) (d)

(15) (c)

(16) (b) Corrected answer

(17) (a) corrected answer

(18) (b) " "

(19) (b) because HI is a strong reducing agent

(20) (b)

(21) (b)

(22) (b)

(23) (b)

(24) (a) corrected answer

(25) (d) " "

HOME ASSIGNMENT – 3

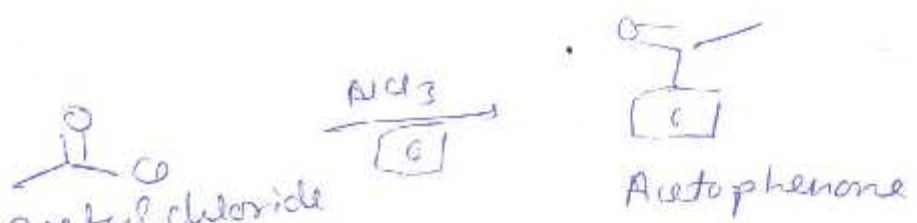
(1) (c)

(2) (c) 
highly deactivated ring

(3) (c)

(4) (c) 

(5) (B)

(6) (A) 

(7) (c)

(8) (b)

(9) (c) at room temp. no rearrangement

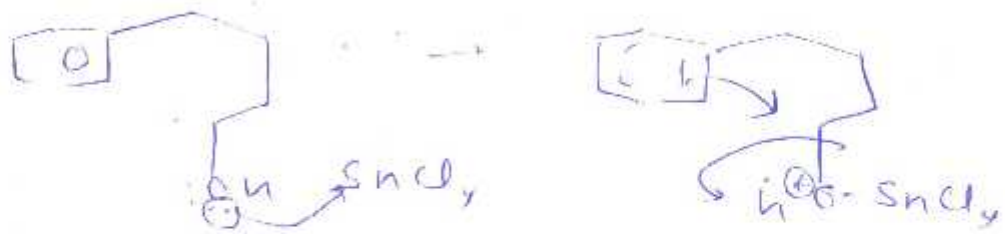
(10) (a)

(11) (c)

(12) (d)

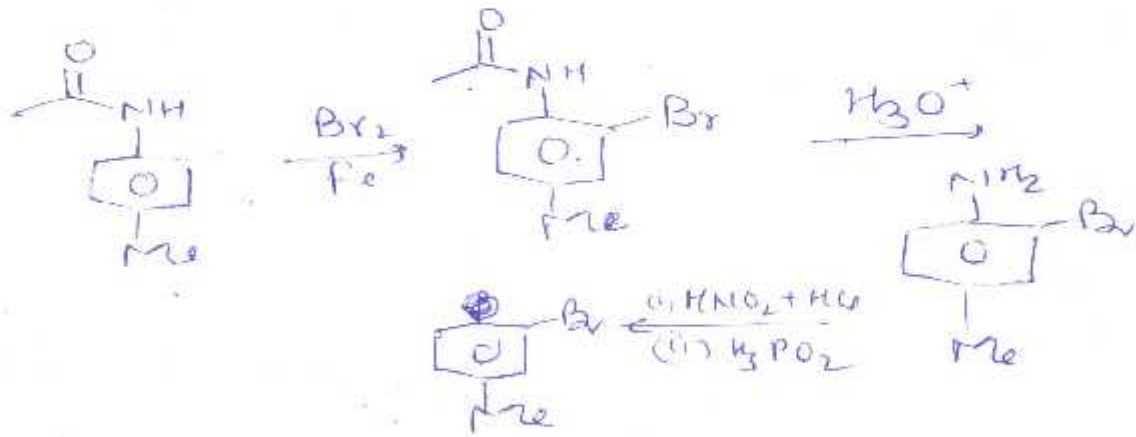
(13) (d)

(14) (a)



(15) (a)

(16) (d)

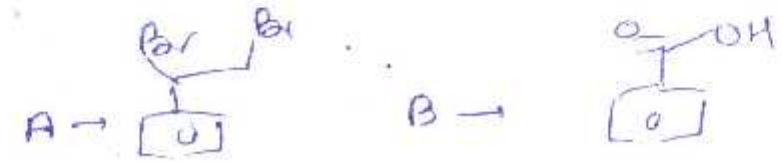


(17) (B)

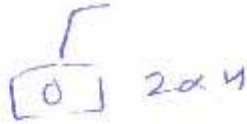
(18) (B)

(19) (c)

(20) (D)

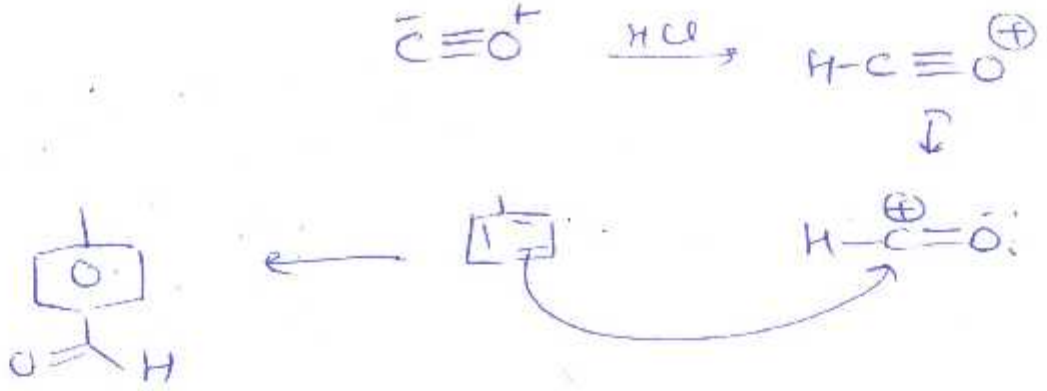


(21) (c)



(22) (D)

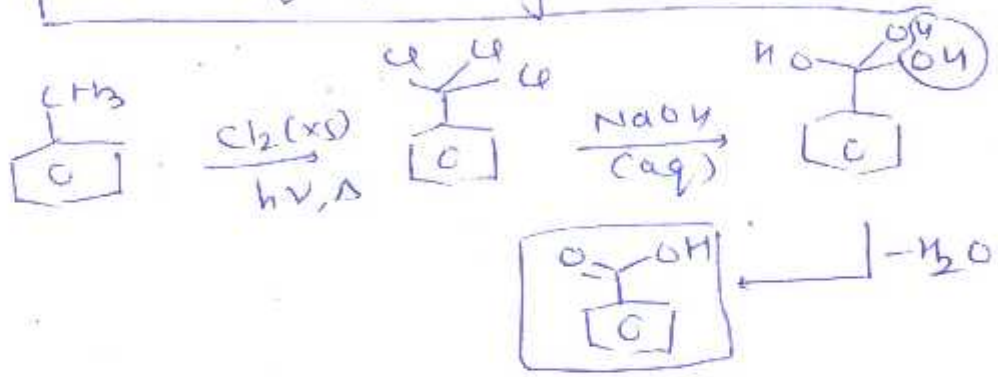
(23) (b)



(24) (d)

Get Equipped for IIT-JEE

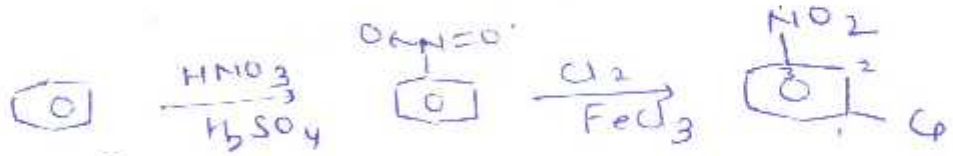
(1) (d)



(2) (c)

(3) (c)

(4) (b)



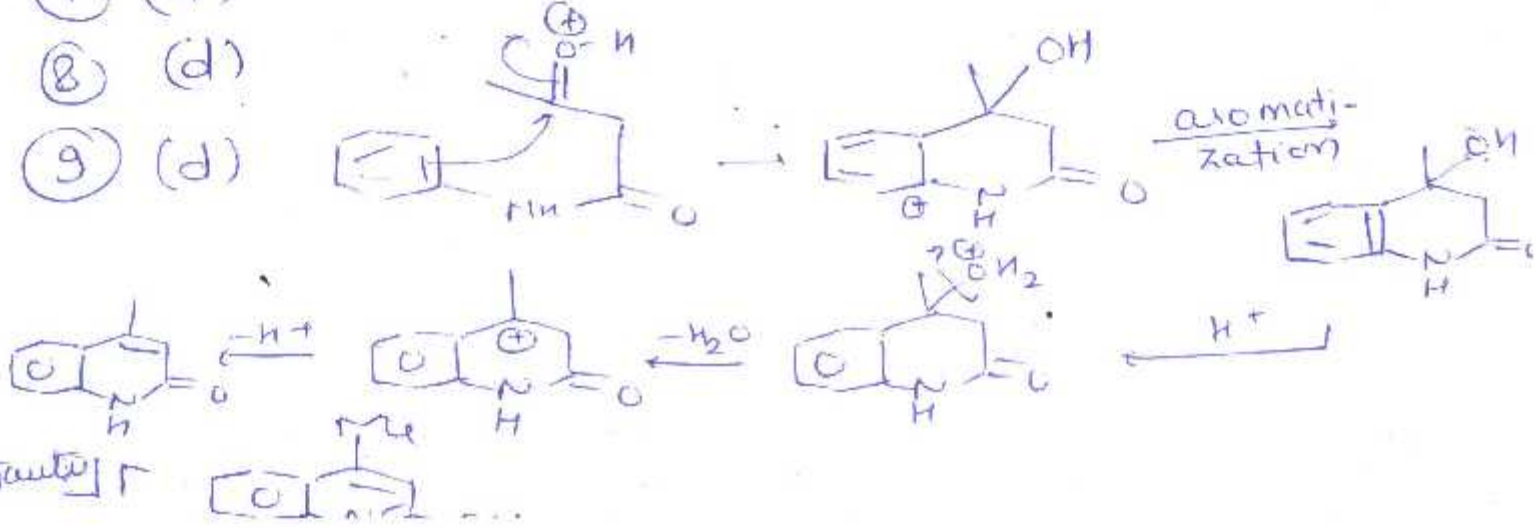
(5) (a)

(6) (c)

(7) (d)

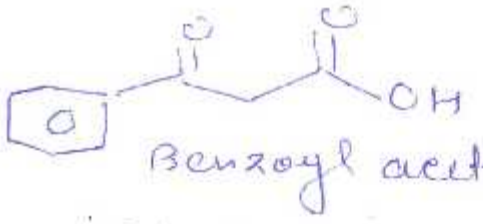
(8) (d)

(9) (d)



(10) (c)

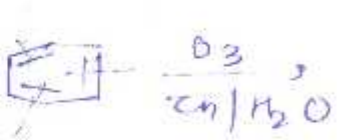
(11) (A)

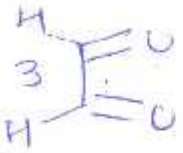


Benzoyl acetic acid

$\xrightarrow[NaOH + CaO]{\Delta}$

(12) (B)





(13) (d)

(14) (c)

(15) (c)

(16) (d)

(17) (c)

(18) (d)

(19) (d)

(20) (a)

(21) (a)

(22) (d)

(23) (c)

(24) (c)

One or more may be correct (follow huckel rule)

(1) A, B, D

(2) A, B, C, D

(3) A, B, C, D

(4) A, B, D

(5) A, B.

(6) A, B

(7) A

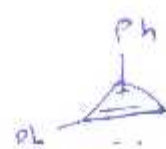
(8) C, D

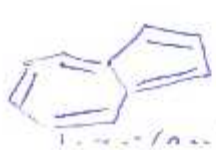
(9) A, B, D

(10) C

(11) A, C

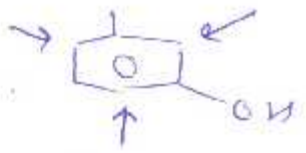
(12) ABC

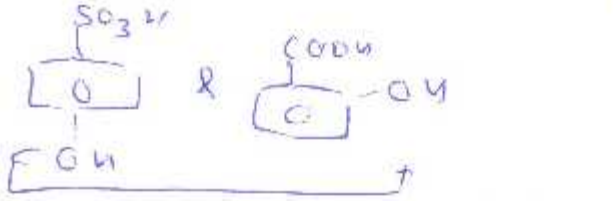




10π e⁻ (Monocyclic)

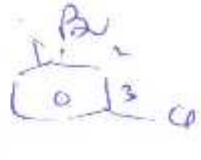
(13) B, C, D





Ipso substitution

(14) B, C, D



→ Identical

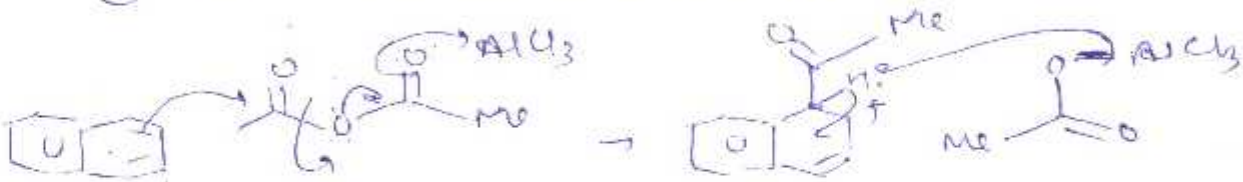
(15) C, D

Paragraph

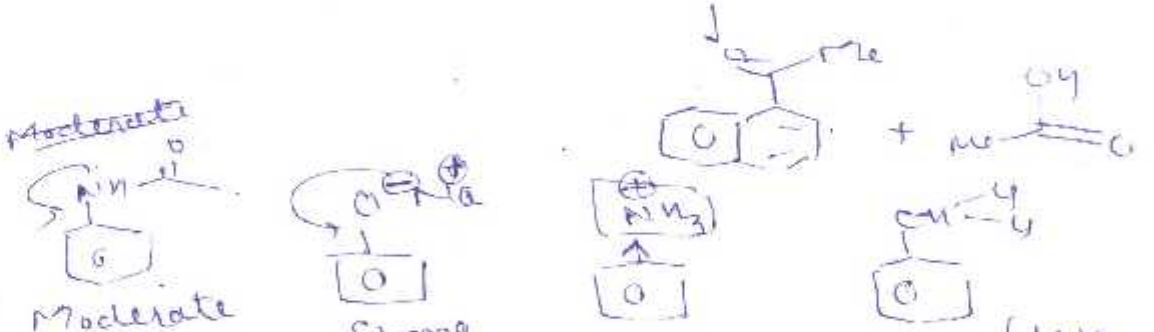
(1) (a)

(2) (b) clemmensen reduction

(3) (b)



(4) (b)



Moderate activating

Strong Activating

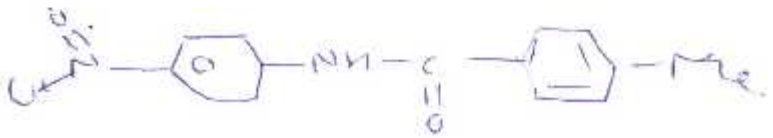
Strong deactivating

(2 H) weak

(5) (d)

Mod-erate activating

weak activating



(6) (C)

6 Position is more nucleophilic

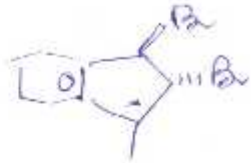
(7) (C)

$C_{10}H_{10}$

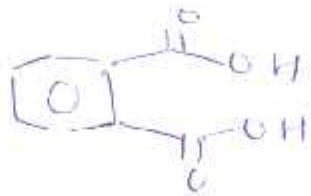
DU = 6

Chiral

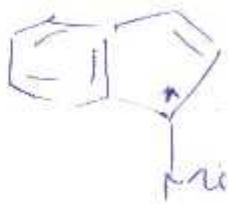
Br_2 / CCl_4 → (+)ve test



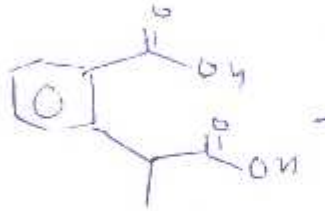
$KMnO_4$



phthalic acid

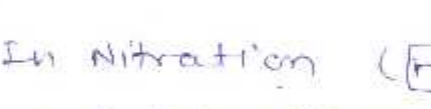


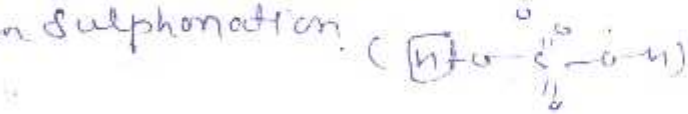
$KMnO_4$



[O] Hot $KMnO_4$

(8) (C)

In Nitration 

In Sulphonation 

(9) (C)

(10) (D)

(11) (A) Both are true & Reason is correct explanation

(12) (D)

Anilinium

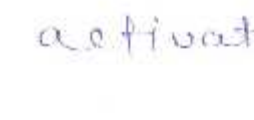
deactivating

(13) (D)

acyl gp. deactivate the ring

(14) (A) Exist in zwitter ion form

(15) (C) Assertion is True
Reason is false

(6) (A) Moderate activating 

(7) (D) Acidic Strength $BBr_3 > BCl_3 > BF_3$

(8) (B)