4) a) D and B
b) E and A
c) C
d) Cmpd A 3 methyl penta-2-one
Cmpd B pentanal
Cmpd C hexose
Cmpd D Benzaldehyde
Cmpd E Cyclohexanol

e) A and E should be reduced to a Secondary alcohol bec aldehyde are red to primary alchol

Qtn 2
a) Cpd C

b) Cmpd D

c) Cmpd E

d) Cmpd A 2 methyl propanoic acid

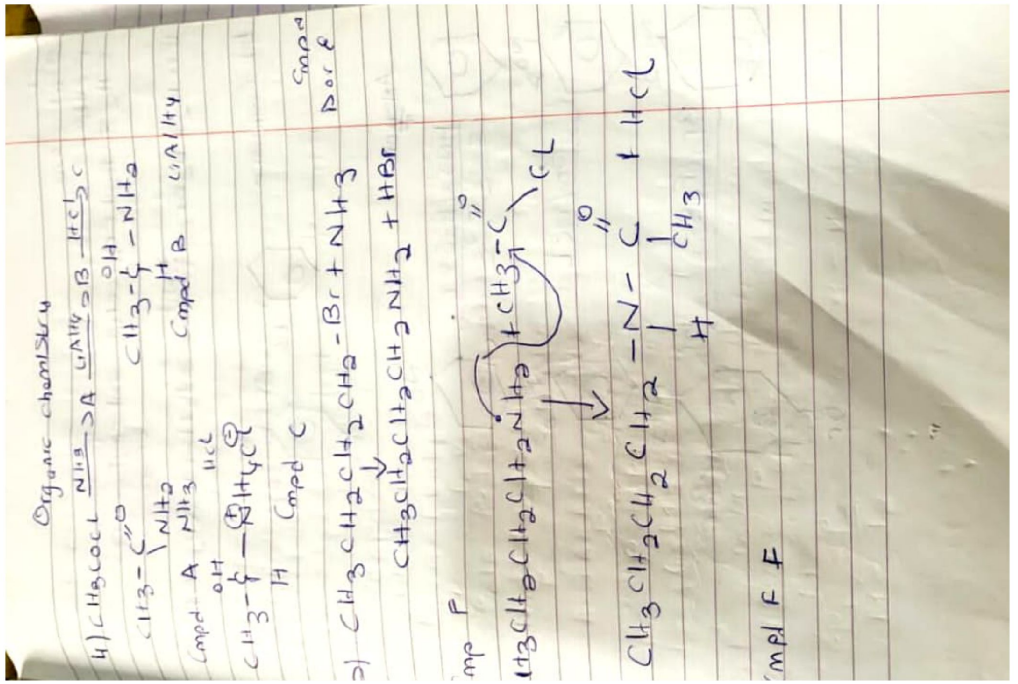
Cmpd B 2 methyl benzoic acid

Cmpd C methyl propanoate

Cmpd D ~~Butanoic acid~~ Bu

Cmpd E ~~Acetic anhydride propan~~

Propanoic anhydride



c) Answer

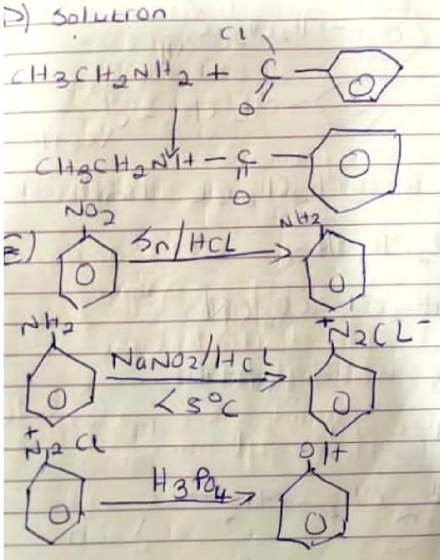
$CH_2=CH_2$ to $CH_3CH_2CH_2NH_2$

$CH_2=CH_2 + HBr \longrightarrow CH_3CH_2Cl$

$CH_3CH_2Cl + KCN \xrightarrow{\text{(alcohol)}} CH_3CH_2CN$

$CH_3CH_2C\equiv N \xrightarrow[\text{dry ether}]{LiAlH_4} CH_3CH_2CH_2NH_2$

d) Solution



Solution 4)

Soal a) $CH_3CH_2CH_2CH_3$

b) $C_6H_5-C(CH_3)=NOH$ atau $C_6H_5-C(CH_3)(OH)-CN$ + CH_2CH_3

c) $CH_3CH_2 + CH_2CH_3$

4) React to give $\longrightarrow C_6H_5COOH$

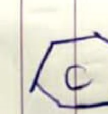
Benzaldehyde oxidized to benzoic

Question 2

1

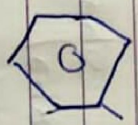
Cmpd A Benzene, Cmpd B

Cmpd A



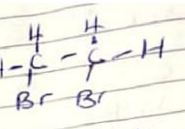
Cmpd B phenol

Cmpd C Chlorobenzene

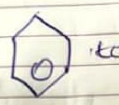
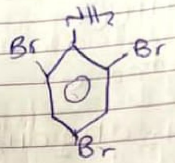


a) (a) Ans

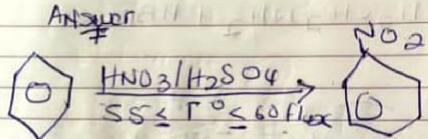
2 steps

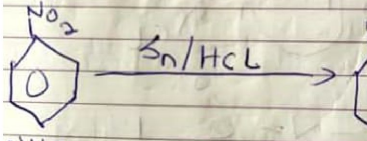
$CH_2=CH_2 + Br_2/CCl_4 \rightarrow$ 

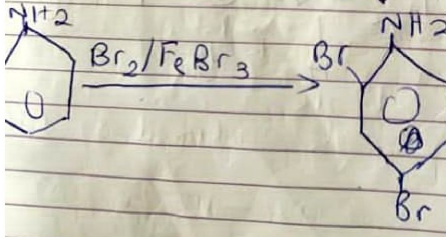
$BrCH_2CH_2Br \xrightarrow{2NH_3} H_2N-CH_2CH_2-NH_2$

b) Conversion  to 

Answer







3) Do it

Q1)

1. a) B (primary amine)

b) Cmpd C → (Secondary amine)

c) Cmpd E

d) Cmpd F (tertiary amine) (3 carbon

e) Cmpd A 2 cyno propane

Cmpd B propyl Amine

Cmpd C 1,3 dinitro benzene

Cmpd D (N-ethyl) methyl amine

Cmpd E Amide (all the propanamide

Cmpd F N-isopropyl amine

Q2)

a) Cpd C

Q2)

a) $LiAlH_4$ in dry heater I Ans

Cmpd B = Aldehyde

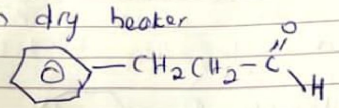
Cmpd D RCH_2CH_2COOH (Carboxylic acid)

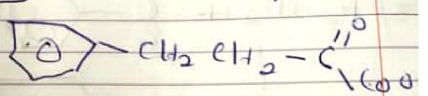
if R is taken to be a methyl group then the cmpd formed is butanoic acid

$R = CH_3$ $R = CH_3CH_2CH_2COOH$

IV PCl_5 V (Benzene ring not Acyl ha

VI $LiAlH_3$ in dry heater

Cmpd B formula 

Cmpd D formula 

Cmpd C $RCH_2CH_2CH_2Cl$ Formula

II $R'CH_2CH_2CH_2OH$

Cmpd E $RCH_2CH_2CH_2CN$

VII $LiAlH_3$ in dry heater

III Ammonia

Cmpd A