

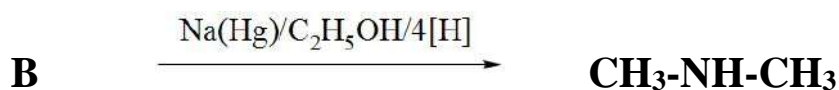
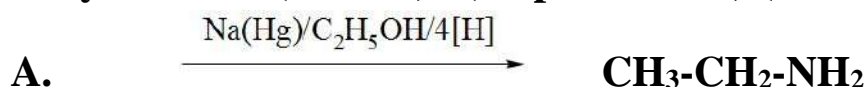
13.ORGANIC NITROGEN COMPOUNDS

MORE IMPORTANT QUESTIONS :-

1.i) How is chloropicrin prepared (mar 20) (in.p.no : 203)

ii) sand meyer reaction

2. Identify A and B (mar 20). (in.p.no : 208.) (Mendius reaction)



3. Aniline does not undergo friedel crafts reaction give reason (sep 20)(B/B:8i)

4. write short note on Gabriel phthalimide synthesis(sep20)(May22)(B/B:(6)3)

5. name the reducing agent used in the reduction of nitrobenzene to the following compounds(inst 20) (B /B : 4)

A).Aniline -vii

B).phenyl hydroxylamine vi

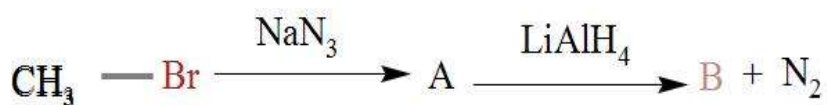
C).Nitroso benzene-203

D).mustard oil reaction (B /B : 6 vi)

6. Write a electrolytic reduction of nitrobenzene-204

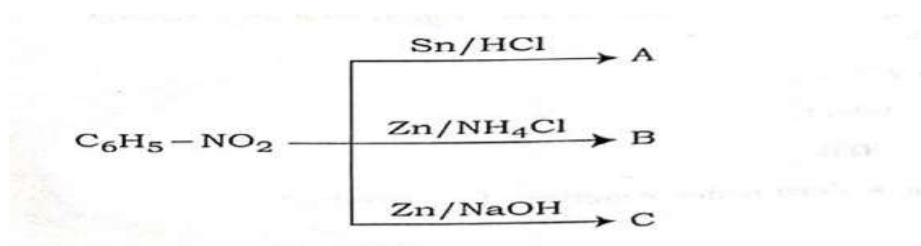
7. Identify A and B in the following sequence of reactions (May22)

(in.p.no : 210) (compulsory 2 mark)



8. Identify compounds A,B and C for the following (jul 22) (in.p.no : 203)

(compulsory 3 mark)



9 Write a note on (jul 22) (b/b-6)

i) Bromination of aniline ii) Mustard oil reaction.

10. what is gomberg reaction explain (mar 20) (B/B : 9 IX)

11. How is aryl halide prepared by using $\text{Cu}_2\text{Cl}_2/\text{HCl}$ (or) $\text{Cu}_2\text{Br}_2/\text{HBr}$. ?

(inst 20)(in.p.no : 220) (compulsory 2 mark)

12.Explain diazotiation with a suitable. Example-(in.p.no : 215)

13. What is carbylamine reaction (b/b –6v) (May22)

14.How will you distinguish between primary, secondary and tertiary aliphatic amines. (b/b -7)

15.Nitrous acid react with primary and secondary amine and tertiary amine -215

16. What is Libermann's nitroso test?(In.p.no :215)

17.How will you aniline react with $\text{Br}_2/\text{H}_2\text{O}$ -217

18. Write a note on reduction nitrobenzene-203

19.write the Hofmann degradation reaction (In.p.no : 209)

20. Write short notes on the following(b/b-6)

i) Hoffman's bromide reaction

ii) Hoffmann's ammonolysis

iii) Schotten -Baumann reaction

21 How will you convert from benzenediazonium chloride to (in.p.no :221,220)

i)phenol ii) iodo benzene iii)biphenyl iv) chloro benzene

22.Write the reaction of electrolytic reduction of nitro benzene

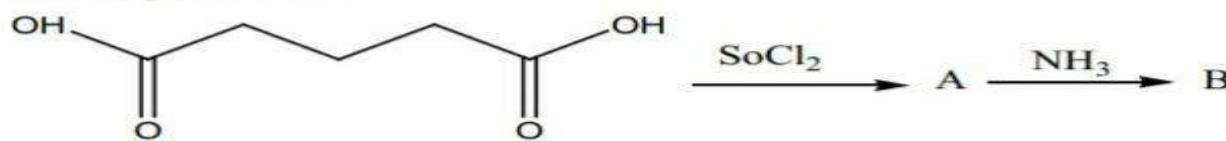
23.Why pK_b of aniline is more than ethylamine (b/b-8)

24.Write a note on nitrile condensation? (in.p.no : 225)

25.Explain the structure of amine (in.p.no : 208)

ANOTHER IMPORTANT QUESTIONS :-

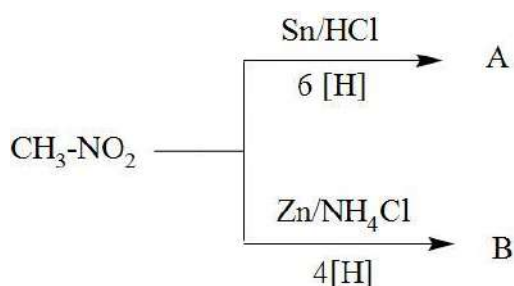
1. Identify A, B and C



1.(sep 20) (b/ b –13)

2. Write the reduction of nitroalkane ? (OR)

**From the following reaction identify A and B (Aug21) (in.p.no.202)
(compulsory 2 mark)**



Answer :-

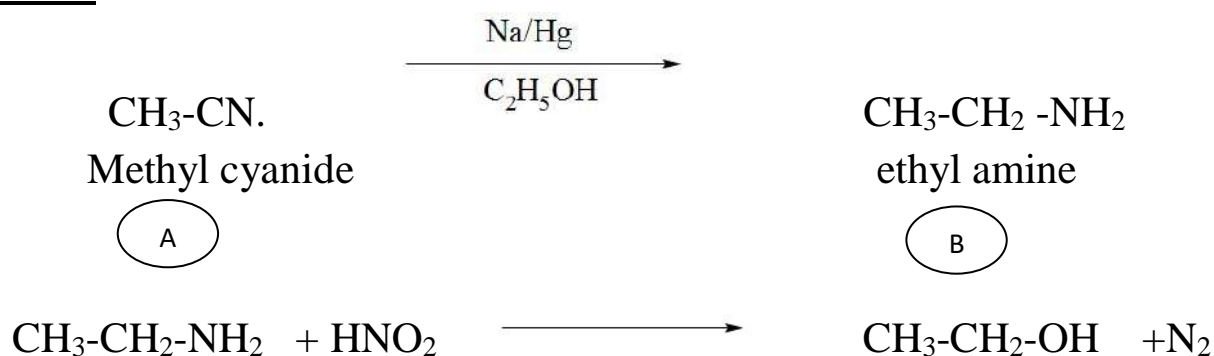
A = $\text{CH}_3\text{-NH}_2$ (Methyl amine), B = $\text{CH}_3\text{-NH}_2\text{OH}$ (N-methyl hydroxylamine)

3. Write a note sabatier-mailhe on method-(In.p.no : 210)

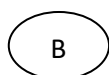
4.A compound 'A' of molecular formula $\text{C}_2\text{H}_3\text{N}$ on reduction with $\text{Na(Hg)}/\text{C}_2\text{H}_5\text{OH}$ gives 'B' of molecular formula $\text{C}_2\text{H}_7\text{N}$ which undergoes carbylamine test.Compound 'B' on reduction with nitrous acid gives compound 'C' of molecular formula $\text{C}_2\text{H}_6\text{O}$ by liberating nitrogen.

Identify A,B and C and write the reaction involved. (Aug21)

Answer :-



Ethyl amine



ethanol



S.NO	COMPOUND	NAME	FORMULA
1	A	Methyl cyanide	$\text{CH}_3\text{-CN}$
2	B	Ethyl amine	$\text{CH}_3\text{-CH}_2\text{-NH}_2$
3	C	Ethanol	$\text{CH}_3\text{-CH}_2\text{-OH}$

5. Write the NEF carbonyl synthesis -203

6. Explain the structure of amine-208

7. Write a short note on solvation effect-213

8 . Arrange the following (b/b- 9) v,vi

I) in decreasing order of the pK_b values

$\text{C}_2\text{H}_5\text{NH}_2$, $\text{C}_6\text{H}_5\text{NHCH}_3$, $(\text{C}_2\text{H}_5)_2\text{NH}$, and CH_3NH_2

II) Increasing order of basic strength

$\text{C}_6\text{H}_5\text{NH}_2$, $\text{C}_6\text{H}_5\text{N}(\text{CH}_3)_2$, $(\text{C}_2\text{H}_5)_2\text{NH}$, and CH_3NH_2

9. There are two isomers with the formula CH_3NO_2 . How will you distinguish between them? (b/b - 2)

10. How will convert nitrobenzene into (b/b-4)

i) azoxy benzene, ii) m-nitroaniline .

11. How will convert nitrobenzene into (b/b-4)

i) N-phenyl hydroxylamine ii) hydrozo benzene.

12. Account the following (b/b-8)

i). Why does aniline not undergo friedel craft reaction?

ii) Amines are more basic than amide.

iii) ethylamine is soluble in water where aniline is not

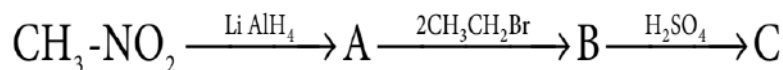
iv) pK_a of aniline is more than that of methylamine

13. Write down the possible isomers of the $\text{C}_4\text{H}_9\text{NO}_2$ give their structure ? (b/b-1)

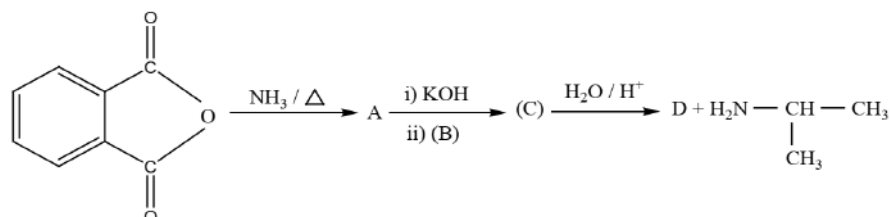
14. Write about Tautomerism? and difference between nitro form and aciform-199

15. How is methyl isocyanide prepared from N-alkyl formamide? (in.p.no : 226)

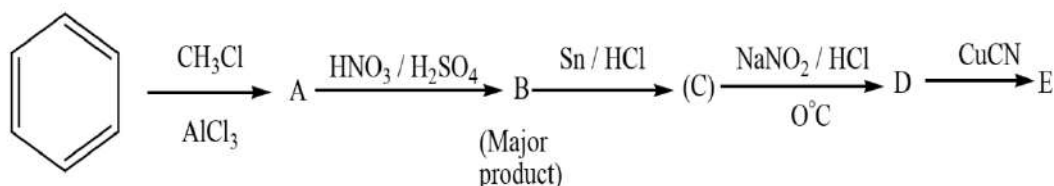
16. Identify A, B and C (b/b-11)



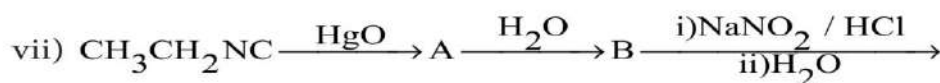
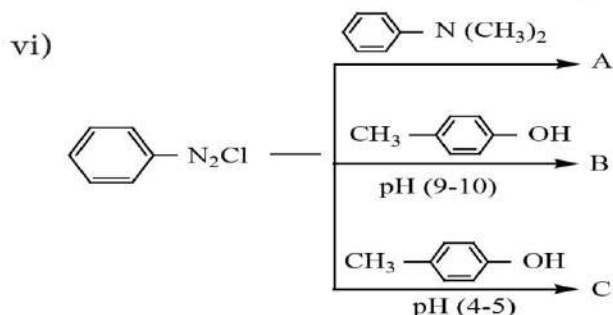
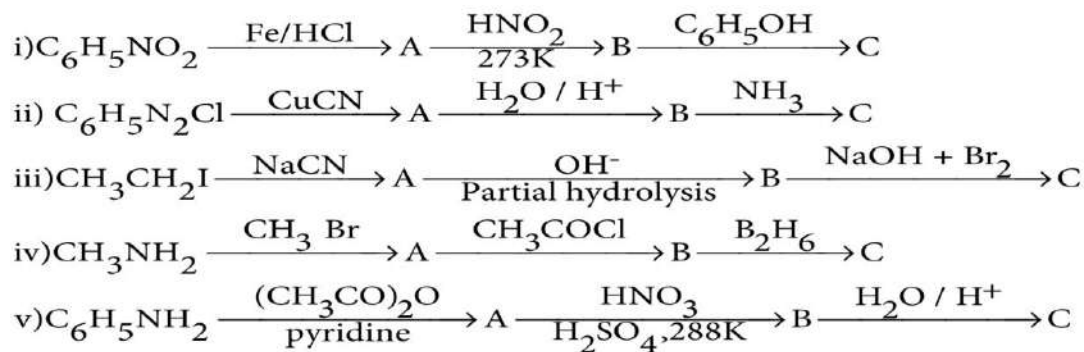
17. Predict A, B, C and D for the following reaction (b/b-16)



18. Identify A to E in the following frequency of reaction (b/b-18)



19. Identify compounds A, B and C in the following sequence of reactions (b/b-5)



20. Write the uses of nitrobenzene? (in.p.no 228)