AMINES

Worksheet -2

1. Give the reasons for the following:
2. Aniline does not undergo Friedel-Crafts reaction
3. (CH3)2NH is more basic than (CH3)3N in an aqueous solution
4. Primary amines have higher boiling point than tertiary amines
5. Ethylamine is soluble in water, whereas aniline is not
6. pKb of methylamine is less than that of aniline
7. Aromatic diazonium salts are more stable than aliphatic diazonium salts
8. Acetylation of aniline reduces its activation effect
9. CH3NH2 is more basic than C6H5NH2
10. Although ─NH2 is o/p directing group, yet aniline on nitration gives a significant amount of m-nitroaniline
11. Aromatic primary amines cannot be prepared by Gabriel’s phthalimide synthesis
12. Aliphatic amines are stronger bases than ammonia
13. Ammonolysis of alkyl halides is not a good method to prepare pure primary amines
14. Aniline is a weaker base than cyclohexyl amine
15. Electrophilic substitution takes place more readily in aromatic amines than benzene
16. Even though propanamine and N, N-dimethylmethanamine contain the same amount of carbon atoms, propanamine has higher boiling point than N, N dimethylmethanamine.
17. Arrange the following compounds
18. (C2H5)2NH, (C2H5)3N, C2H5NH2 (increasing order of boiling point)
19. C6H5NH2, (C2H5)2NH, C2H5NH2 (increasing order of solubility in water)
20. CH3NH2, (CH3)3N, (CH3)2NH (increasing order of basic strength in aqueous solution)
21. (C2H5)3N, C2H5NH2, (C2H5)2NH (increasing order of basic strength in gas phase)
22. C6H5NH2, C6H5NHCH3, C6H5N(CH3)2 (increasing order of basic strength)
23. NH3, CH3NH2, (CH3)2NH, (CH3)3N (increasing order of basic strength in aqueous solution)
24. C2H5NH2, C6H5NHCH3, (C2H5)2NH and C6H5NH2(decreasing order of pKb values)