

Topic :- Amines

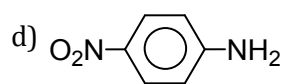
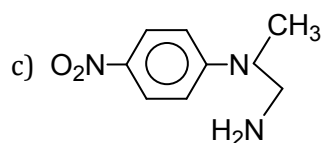
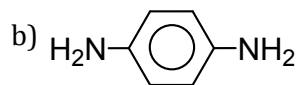
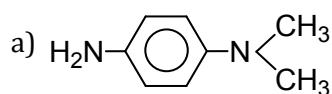
- Dye test can be used to distinguish
 - Ethyl amine and acetamide
 - Ethyl amine and aniline
 - Urea and acetamide
 - Methyl amine and ethyl amine
- In the reaction of (S) 2-phenylpropamide with NaBr/H₂O to give 1-phenylethylamine
 - There is retention of configuration
 - There is inversion of configuration
 - A mixture of two products is obtained
 - There is no reaction
- RNH₂ reacts with C₆H₅SO₂Cl in aqueous KOH to give a clear solution. On acidification a precipitate is obtained which is due to the formation of
 - $$R-\overset{\text{H}}{\underset{\text{H}}{\text{N}^+}}-\text{SO}_2\text{C}_6\text{H}_5\text{OH}^-$$
 - $$R-\text{N}^-\text{SO}_2\text{C}_6\text{H}_5\text{K}^+$$
 - C₆H₅SO₂NH₂
 - $$R-\text{NH}-\text{SO}_2-\text{C}_6\text{H}_5$$
- The reaction,

$$\text{CH}_3\text{CN} + 4\text{HNa}/\text{C}_2\text{H}_5\text{OH} \longrightarrow \text{CH}_3\text{CH}_2\text{NH}_2$$
 is called:
 - Hofmann's bromamide reaction
 - Mendius reaction
 - Sabatier reaction
 - None of the above
- $$\text{F}-\text{C}_6\text{H}_4-\text{NO}_2$$

$$\xrightarrow[\text{DMF}]{(\text{CH}_3)_2\text{NH}}$$

$$A \xrightarrow[\text{(ii) H}_2\text{Pt}]{\text{(i) NaNO}_2/\text{HCl, } 0-5^\circ\text{C}} B$$

In the above sequence B is



6. A compound *A* when reacted with PCl_5 and then with ammonia gave *B*. *B* when treated with bromine and caustic potash produced *C*. *C* on treatment with NaNO_2 and HCl at 0°C and then boiling produced orthocresol. Compound *A* is:

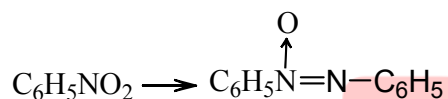
- a) *o*-toluic acid b) *o*-chlorotoluene c) *o*-bromotoluene d) *m*-toluic acid

7. $\text{C}_2\text{H}_5\text{NH}_2 \xrightarrow{\text{HNO}_2} \text{A} \xrightarrow{\text{PCl}_3} \text{B} \xrightarrow{\text{NH}_3} \text{C}$.

Recognize the compound *C* from the following

- a) Propanenitrile b) Methylamine c) Ethylamine d) Acetamide

8. The conversion



Can be brought about by reduction with

- a) $\text{Na}_3\text{AsO}_3/\text{NaOH}$ b) Glucose/ HCl c) Zn/NaOH d) $\text{LiAlH}_4/\text{ether}$

9. Benzoyl chloride does not react with:

- a) Primary or secondary amines
b) Aliphatic compounds
c) Aromatic compounds
d) Carboxylic acids

10. Which compound will liberate CO_2 from NaHCO_3 solution?

- a) CH_3CONH_2 b) CH_3NH_2 c) $(\text{CH}_3)_4\text{N}^+\text{OH}^-$ d) $\text{CH}_3\text{N}^+\text{H}_3\text{Cl}^-$

11. $\text{C}_6\text{H}_5\text{NH}_2 \xrightarrow{\text{HCl}} \text{X} \xrightarrow{\text{Cu}_2(\text{CN})_2} \text{Y} \xrightarrow{\text{H}_2\text{O}/\text{H}^+} \text{Z}$

Z is identified as

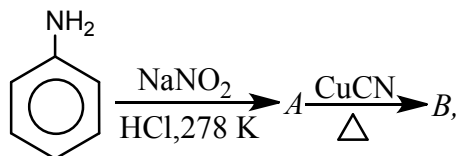
- a) $\text{C}_6\text{H}_5-\text{NH}-\text{CH}_3$ b) $\text{C}_6\text{H}_5-\text{COOH}$ c) $\text{C}_6\text{H}_5-\text{CH}_2-\text{NH}_2$ d) $\text{C}_6\text{H}_5-\text{CH}_2\text{COOH}$

12. Ketones and 1° amines react to form:

- a) Amides b) Oximes c) Urea d) Anils

13.

In the chemical reactions,



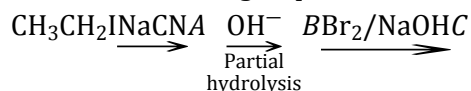
Compounds A and B respectively are

- a) Fluorobenzene and phenol
 b) Benzene diazonium chloride and benzonitrile
 c) Nitrobenzene and chlorobenzene
 d) Phenol and bromobenzene

14. Dehydration of an amide gives:

- a) Cyanide
 b) Amine
 c) Isocyanide
 d) Fatty acid

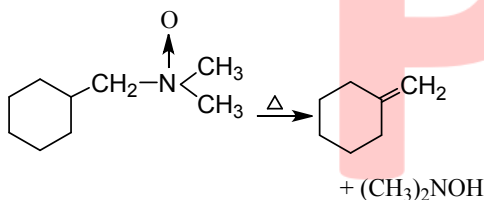
15. Given the following sequence of reactions,



The major product 'C' is

- a) $\text{CH}_3\text{CH}_2\text{NH}_2$
 b) $\text{CH}_3\text{CH}_2\text{C}(\text{O})\text{NHBBr}$
 c) $\text{CH}_3\text{CH}_2\text{COONH}_4$
 d) $\text{CH}_3\text{CH}_2\text{C}(\text{O})\text{NBr}_2$

16.



This reaction is called

- a) Cope reaction
 b) Ritter reaction
 c) Schmidt reaction
 d) Gabriel reaction

17. Which one of the following compounds forms a quaternary salt on reacting with excess methyl iodide?

- a) $\text{C}_2\text{H}_5\text{OCH}_3$
 b) $(\text{CH}_3)_2\text{CHOC}_2\text{H}_5$
 c) $\text{C}_6\text{H}_5\text{NH}_2$
 d) $\text{C}_6\text{H}_5\text{NO}_2$

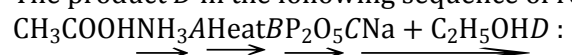
18. Which of the following reactions can produce aniline as main product?

- a) $\text{C}_6\text{H}_5\text{NO}_2 + \text{Zn/KOH}$
 b) $\text{C}_6\text{H}_5\text{NO}_2 + \text{Zn/NH}_4\text{Cl}$
 c) $\text{C}_6\text{H}_5\text{NO}_2 + \text{LiAlH}_4$
 d) $\text{C}_6\text{H}_5\text{NO}_2 + \text{Zn/HCl}$

19. Reaction of aniline with benzaldehyde is

- a) Substitution
 b) Addition
 c) Condensation
 d) Polymerisation

20. The product *D* in the following sequence of reactions is,



a) Ester

b) Amine

c) Acid

d) Alcohol

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