

Class: 12
Subject: chemistry
Topic: Amines
No. of Questions: 25

1. Which of the following compounds does not give a positive test in the Lassaigne's test for nitrogen?

- a. Glycine
- b. Phenyl hydrazine
- c. Urea
- d. Diazonium salt

2. Directions: The following question has four choices out of which ONLY ONE is correct.

Among the following compounds which will react with acetone to give a product containing $C = N$ - ?

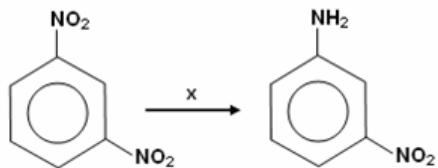
- a. $C_6H_5NH_2$
- b. $(CH_3)_3N$
- c. $C_6H_5NH C_6H_5$
- d. $C_6H_5NHNH_2$

3. Directions: The following question has four choices out of which ONLY ONE is correct.

Which of the following is obtained in a carbylamine reaction?

- a. $C_6H_5NH_2$
- b. $COCl_2$
- c. $C_6H_5CONH_2$
- d. C_6H_5NC

4. In the following reaction, X is



- a. SiC
- b. H₂SO₄
- c. KMnO₄
- d. Fe/HCl

5. The number of isomeric forms that are represented by C₇H₉N is

- a. 4
- b. 5
- c. 6
- d. 7

6. Directions: The following question has four choices out of which ONLY ONE is correct.

Which of the following compounds is obtained, when chlorobenzene reacts with ammonia at 475 k under high pressure and in the presence of a catalyst?

- a. Phthalic acid
- b. Aniline
- c. Benzyl amine
- d. Acetanilide

7. Directions: The following question has four choices out of which ONLY ONE is correct.

Which one of the following is correct about amines?

- a. Amines behave as lewis acid(s)
- b. Amines behave as lewis base(s)
- c. $\text{CH}_3\text{CH}_2\text{CH}_2\text{NH}_2$ is solid in nature
- d. An aliphatic amine is a weaker base than ammonia

8. Which of the following would not react with benzene sulphonyl chloride in an aqueous NaOH?

- a. N – ethyl aniline
- b. p – toluidine
- c. N, N – dimethyl aniline
- d. Aniline

9. Directions: The following question has four choices out of which ONLY ONE is correct.

Stephan's reaction is the reduction of

- a. acyl halide in the presence of Pb/BaSO₄
- b. alkyl isocyanide with Na and alcohol
- c. alkyl cyanide with SnCl₂ and HCl
- d. alkyl cyanide with LiAlH₄

10. Directions: The following question has four choices out of which ONLY ONE is correct.

Friedel Craft's reaction using $\text{CH}_3\text{COCl}/\text{AlCl}_3$ is not successful in case of

- a. $\text{C}_6\text{H}_5\text{CH}_3$
- b. $\text{C}_6\text{H}_5\text{NO}_2$
- c. $\text{C}_6\text{H}_5\text{OH}$

d. C_6H_6

11. Directions: The following question has four choices out of which ONLY ONE is correct.

Aniline on treatment with sodium nitrite and dilute hydrochloric acid at $0^{\circ}C$ yields

- a. phenol
- b. benzene diazonium chloride
- c. nitro aniline
- d. chloroaniline

12. Methyl ethyl propylamine forms non-superimposable mirror images but it does not show optical activity because

- a. of rapid flipping
- b. amines are basic in nature
- c. nitrogen has a lone pair of electrons
- d. none of these

13. Directions: The following question has four choices out of which ONLY ONE is correct.

The basic character of amines can be explained

- a. in terms of Lewis as well as Arrhenius Concept
- b. only in terms of Lowry-Bronsted Concept
- c. in terms of Lewis as well as Lowry-Bronsted Concept
- d. only in terms of Lowry Concept

14. Laboratory preparation of aniline involves

- a. heating chlorobenzene with ammonia
- b. reduction of nitrobenzene with LiAlH_4
- c. reduction of nitrobenzene with Sn/HCl
- d. none of these

15. Directions: The following question has four choices out of which ONLY ONE is correct.

Oxidation of aniline with acidified potassium dichromate under controlled condition gives

- a. benzoic acid
- b. p-benzoquinone
- c. quinol
- d. none of these

16. Aniline reacts with acetyl chloride to form

- a. acetanilide
- b. benzanilide
- c. methyl amine
- d. chlorobenzene

17. Directions: The following question has four choices out of which ONLY ONE is correct.

The compound most reactive towards electrophilic nitration is

- a. methyl benzene
- b. benzene
- c. benzoic acid

d. nitro benzene

18. Nitro-acinitro tautomerism is exhibited by

- a. nitrobenzene
- b. nitromethane
- c. chloropictin
- d. o-toluidine

19. Directions: The following question has four choices out of which ONLY ONE is correct.

Conversion of benzene diazonium chloride to chlorobenzene is called

- a. Sandmeyer's reaction
- b. Stephen's reaction
- c. Gomberg's reaction
- d. Schotten-Baumann's reaction

20. Which of the following is not the characteristic of amines?

- a. They smell like ammonia.
- b. They are inflammable in air.
- c. They show the property of hydrogen bonding.
- d. They are amphoteric in nature.

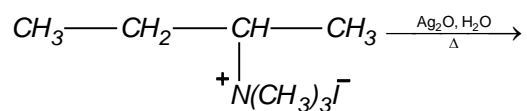
21. How will you distinguish between aniline and ethyl amine?

22. Convert:

(i) Aniline to Benzoic acid

(ii) *p*-chloro aniline to *p*-chloro benzylamine

23. How is it that an ester reacts with Grignard's reagent to form a tertiary alcohol but in the reaction of nitrile with Grignard's reagent, a ketone is formed?
24. There is a solution of p – hydroxy benzoic acid and p – aminobenzoic acid. Discuss one method by which we can separate them.
25. Write the major product in the following reaction:



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