

NEET : CHAPTER WISE TEST-10

SUBJECT :- CHEMISTRY

CLASS :- 12th

CHAPTER :- AMINE

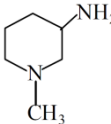
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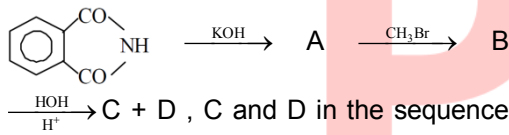
SECTION.....

(SECTION-A)

1. Compound contains -



(A) 1° and 3° amine
(B) Only primary amine
(C) 2° and 3° amine
(D) Only secondary amine
2. Mendius reaction involves the reduction of -
(A) Cyanoalkanes
(B) Alkyl isocyanides
(C) Oximes
(D) Nitroalkanes
3. A reaction used in descending a homologous series would be -
(A) $RCONH_2 + Br_2 + KOH$
(B) $RCH_2Cl + KCN$
(C) $RNH_2 + CHCl_3 + KOH$
(D) None of the above
4.



C and D in the sequence are-

(A) Benzoic acid + aniline
(B) Phthalic acid + methylamine
(C) Phthalic acid + aniline
(D) Benzoic acid + ethylamine
5. Reaction for the preparation of 1° amine is-
(A) Hoffmann carbylamine reaction
(B) Hoffmann mustard oil reaction
(C) Hoffmann bromamide reaction
(D) Liebermann nitroso reaction
6. On reduction of Schiff's base we get-
(A) Primary amine
(B) Secondary amine
(C) Anils
(D) Anilide
7. In Hoffmann degradation of amide the correct order of reagent is-
(A) Br_2, KOH, H_2O
(B) KOH, Br_2, H_2O
(C) H_2O, KOH, Br_2
(D) None of the these
8. Alkyl halide reacts with AgCN to form mainly :
(A) Alcohol (B) Cyanide
(C) Isocyanide (D) Both B & C
9. Amide on heating with P_2O_5 gives -
(A) Alkane nitrile (B) Alkyl halide
(C) Amine (D) None
10. Grignard reagent reacts with cyanogen chloride to form -
(A) Alkane nitrile (B) Alkyl halide
(C) Amine (D) None
11. Ethyl iodide on reaction with potassium nitrite gives -
(A) Ethyl nitrite (B) Nitroethane
(C) Amine (D) Acid
12. Which of the following is optically active amine ?
(A) CH_3NH_2
(B) CH_3NHCH_3
(C) $CH_3CH_2CH_2N(CH_3)C_2H_5$
(D) Secondary butylamine
13. Which of the following would undergo Hoffmann bromamide reaction to form primary amine ?
(A) $RCONHCH_3$ (B) $RCOONH_4$
(C) $RCONH_2$ (D) $RCONHOH$
14. Which of the following will give primary amine on hydrolysis ?
(A) Nitroparaffins
(B) Alkyl cyanide
(C) Oxime
(D) Alkyl isocyanide
15. Which of the following is obtained by reducing methyl cyanide with $Na + C_2H_5OH$?
(A) Methyl alcohol (B) Acetic acid
(C) Ethylamine (D) Methane
16. Ethylamine can be prepared by the all except
(A) Curtius reaction
(B) Hoffmann reaction
(C) Mendius reaction
(D) Reduction of formaldoxime

17. Amines are basic in nature because-
 (A) They produce OH^- ions when treated with water
 (B) They have replaceable H atoms on N atoms
 (C) They have lone pair of electron on N atom
 (D) None of these
18. Which statement is not correct ?
 (A) Methylamine is more basic than NH_3
 (B) Amines form hydrogen bonds
 (C) Ethylamine has higher boiling points than propane
 (D) Dimethylamine is less basic than methylamine
19. Which of the following diazonium salt is relatively stable at $0-5^\circ\text{C}$?
 (A) $[\text{CH}_3-\text{N}=\text{N}]^+ \text{Cl}^-$
 (B) $[\text{CH}_3-\text{C}(\text{CH}_3)-\text{N}=\text{N}]^+ \text{Cl}^-$
 (C) $[\text{C}_6\text{H}_5-\text{N}=\text{N}]^+ \text{Cl}^-$
 (D) $[(\text{CH}_3)_3\text{C}-\text{N}=\text{N}]^+ \text{Cl}^-$
20. Which of the following compound gives the smell of mustard oil ?
 (A) Alkyl isocyanate
 (B) Allyl isothiocyanate
 (C) Alkyl isocyanide
 (D) Alkyl isonitrile
21. Suitable explanation for the order of basic character $(\text{CH}_3)_3\text{N} < (\text{CH}_3)_2\text{NH}$ is-
 (A) Steric hindrance by bulky methyl group
 (B) Higher volatility of 3° amine
 (C) Decreased capacity for H-bond formation with H_2O
 (D) Decreased electron density at N atom
22. Butylamine reacts with sodium nitrite and aqueous solution of a strong acid to form -
 (A) Two position isomers of C_4H_8 having unbranched carbon chain
 (B) 1-Butanol
 (C) 2-Butanol
 (D) All compounds given in A, B and C
23. Propylamine reacts with nitrous acid to form a relatively stable cation viz. -
 (A) Propyl diazonium ion
 (B) Isopropyl carbocation
 (C) Isopropyl diazonium ion
 (D) Propyl carbonium ion
24. Which of the following can be detected by carbylamine reaction ?
 (A) Urea
 (B) CH_3CONH_2
 (C) $\text{C}_2\text{H}_5\text{NH}_2$
 (D) All the above
25. Which of the following does not form a sulphur compound with primary amine ?
 (A) Hinsberg's reagent
 (B) Sulphuric acid
 (C) Schotten-Baumann reaction
 (D) Mustard oil reaction
26. Hydrolysis of alkyl isocyanide yields -
 (A) Primary amine
 (B) Tertiary amine
 (C) Alcohol
 (D) Aldehyde
27. Imino group is present in -
 (A) CH_3NH_2
 (B) $\text{CH}_3\text{NHCOCH}_3$
 (C) $(\text{CH}_3)_2\text{NH}$
 (D) $(\text{CH}_3)_3\text{N}$
28. A mixture of 1° , 2° and 3° amine is formed in the reaction-
 (A) 1° Amide + caustic potash + bromine
 (B) Methyl halide and ammonia
 (C) Cyclic imide + H_3O^+
 (D) Alkyl isocyanide + H_2
29. The presence of primary amines can be confirmed by-
 (A) Reaction with HNO_2
 (B) Reaction with CHCl_3 and alc. KOH
 (C) Reaction with Grignard reagent
 (D) Reaction with acetyl chloride
30. The compound obtained by the reaction between primary amine and aldehyde is-
 (A) An amide
 (B) Imine
 (C) Nitrite
 (D) Nitro
31. A primary nitroalkane is treated with nitrous acid, which of the following will be the main product :
 (A) Pseudonitrol
 (B) Nitrolic acid
 (C) A primary amine
 (D) A primary alcohol
32. Which of the following method is generally not employed for the separation of primary, secondary and tertiary amines ?
 (A) Fractional distillation
 (B) Hinsberg's method
 (C) Hoffmann's method
 (D) Filtration
33. $\text{CH}_3\text{NH}_2 + \text{CHCl}_3 + 3\text{KOH} \rightarrow \text{X} + \text{Y} + 3\text{H}_2\text{O}$; compounds X and Y are :
 (A) $\text{CH}_3\text{CN} + 3\text{KCl}$
 (B) $\text{CH}_3\text{NC} + 3\text{KCl}$
 (C) $\text{CH}_3\text{CONH}_2 + 3\text{KCl}$
 (D) $\text{CH}_3\text{NC} + \text{K}_2\text{CO}_3$

34. Which of the following amine does not react with Hinsberg reagent ?
 (A) Neopentyl amine
 (B) Isopropyl amine
 (C) Triethylamine
 (D) Ethyl methylamine
35. Which one of following reaction is Schotten–Baumann reaction ?
 (A) Acetylation of RNH_2
 (B) Acylation of RNH_2
 (C) Alkylation of RNH_2
 (D) Benzoylation RNH_2

(SECTION-B)

36. Ethylamine on oxidation with KMnO_4 gives
 (A) Acetaldehyde
 (B) Ethylamine oxide
 (C) Ethanol
 (D) Acetamide
37. Methylamine on treatment with chloroform and ethanolic caustic alkali gives foul smelling compound, the compound is
 (A) CH_3NCO (B) CH_3CNO
 (C) CH_3CN (D) CH_3NC
38. Weakest amine is
 (A) Aniline (B) Methylamine
 (C) Dimethylamine (D) Ethylamine
39. If primary amines are treated with ketones the product is
 (A) Urea (B) Guanidine
 (C) Amide (D) Schiff's base
40. Lowest boiling point will be of the compound
 (A) Ethylamine
 (B) Ethyl methylamine
 (C) 1-Propanamine
 (D) N, N-Dimethylmethanamine
41. Which of the following reagent gives nitrogen gas when treated with primary amine ?
 (A) Nitrous acid (B) Nitric acid
 (C) Nitrosyl chloride (D) A and C
42. Chloroplatinic acid is a :-
 (A) Dibasic acid
 (B) Monobasic acid
 (C) Tribasic acid
 (D) None of these

43. False statement regarding amines is :-
 (A) They give mustard oil reaction
 (B) They give carbylamine reaction
 (C) They form salt with acids
 (D) They give alcohol on hydrolysis
44. Primary amines on heating with CS_2 followed by excess of mercuric chloride yields isothiocyanate.
 The reaction is called :-
 (A) Hoffmann mustard oil reaction
 (B) Perkin reaction
 (C) Fries reaction
 (D) Diels–alder reaction
45. Match List I with List II and select the correct answer using the codes given below :-
List I
 [Reagent]
 A. Ammonical AgNO_3
 B. HIO_4
 C. Alkaline KMnO_4
 D. Chloroform + NaOH
List II
 [Used as test reagent for]
 a. Primary amine
 b. Aldehyde
 c. Vicinal–OH groups
 d. Double bond
 Codes :

	A	B	C	D
(A)	b	c	a	d
(B)	d	b	a	c
(C)	b	c	d	a
(D)	d	c	b	a
46. Reaction of nitrobenzene with sodium arsenite gives the product :-
 (A) Azoxybenzene
 (B) Azobenzene
 (C) Hydrazobenzene
 (D) Nitrosobenzene
47. Which product cannot be isolated if the nitrobenzene is subjected to reduction in alkaline medium ?
 (A) Azoxybenzene
 (B) Hydrazobenzene
 (C) Azobenzene
 (D) Nitrosobenzene
48. Reduction of nitrobenzene with zinc and methanolic alkali gives mainly :-
 (A) Aniline
 (B) p–Aminophenol
 (C) Azoxybenzene
 (D) Azobenzene

49. **Assertion** : Amines are basic in nature.
Reason : Presence of lone pair of electron on nitrogen atom.
(A) If both assertion and reason are true and the reason is the correct explanation of the assertion.
(B) If both assertion and reason are true but reason is not the correct explanation of the assertion.
(C) If assertion is true but reason is false.
(D) If assertion is false but reason is true.

50. **Assertion** : Nitrobenzene does not undergo Friedel Craft alkylation.
Reason : Nitrobenzene is used as solvent in laboratory and industry.
(A) If both assertion and reason are true and the reason is the correct explanation of the assertion.
(B) If both assertion and reason are true but reason is not the correct explanation of the assertion.
(C) If assertion is true but reason is false.
(D) If assertion is false but reason is true.

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