CHEMISTRY

BOOKS - NIKITA CHEMISTRY (HINGLISH)

COMPOUNDS CONTAINING NITROGEN

Mcq

1. Nitrocompounds are

A. derivatives of alkane

B. derivatives of benzene

C. nitroderivative of ammonia

D. both a and b

Answer: D

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2. Which of the following is 2,3-dimethyl -1-nitropentane

A. 

B. 

C. 

D. 

Answer: D

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3. Which of the following is ambidentate group ?

A. NH_2

B. OH

C. NO_2

D. OR

Answer: C

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4. IUPAC name of the following compound is

$$CH_2 = CH - \underset{\underset{CH_3}{|}}{CH} - NO_2$$

A. 3-methyl -3-nitroprop-1-ene

B. 1-methyl -1-nitroprop-2-ene

C. 3-nitrobu t-1-ene

D. 2-nitrobut-3-ene

Answer: C

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5. Which of the following is 3° nitroalkane

A. 

B. 

C. 

D. 

Answer: C

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6. $CH_3 - NO_2$ and $CH_3 - O - N = O$ are

A. position isomers

B. metamers

C. linkage isomers

D. geometrical isomers

Answer: C

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7. Which of the following method is not meant for the synthesis of nitroalkane ?

A. nitration of alkane

B. oxidation of oxime

C. oxidation of 3° alkyl amine

D. reduction of oxime

Answer: D

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8. Which of the following does not undergoes nitration?

A. $CH_3 - CH_3$

B. CH_3NH_2

C. CH_4

D. $CH_3 - CH_2 - CH_3$

Answer: B

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9. Which of the following is nitrating agent?

A. HNO_2

B. $AgNO_3$

C. HNO_3

D. KNO_3

Answer: C

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10. Vapour phase nitration of propane porduces how many products.

A. 1

B. 2

C. 3

D. 4

Answer: D

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11. Vapour phase nitration of alkane gives

A. nitroalkane

B. dinitroalkane

C. trinitroalkane

D. tetraintrioalkne

Answer: A

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12. Liquid phase nitration of alkane gives

A. mononitroalkane

B. polynitroalane

C. alkane nitrite

D. dialkyl nitrite

Answer: B

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13. Liquid phase nitration of propane mamly gives

A. $CH_3 - \overset{NH_3}{\underset{|}{C}}H = CH_3$

B. $CH_3 - \overset{NH_3}{\underset{|}{C}}H = CH_2 - NO_2$

C. $CH_3 - CH_2 - CH_2 - NO_2$

D. $\overset{NO_2}{\underset{|}{C}}H_2 - \overset{NO_2}{\underset{|}{C}}H - \overset{NO_2}{\underset{|}{C}}H_2$

Answer: D

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14. Which of the following gives acetone and 1-nitropropane on acid hydrolysis ?

A. 2-methyl -1-nitroprop-1-ene

B. 1-nitroprop-1-ene

C. 3-methyl- 2-nitrobut-2-ene

D. 2-methyl -3-nitropent-2-ene

Answer: D

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15. Product of the following reaction is

$$CH_3 - \overset{X}{\overset{|}{C}}H - CH_3 + AgNO_2 \rightarrow$$

A. $CH_3 - \overset{\overset{NO_2}{|}}{CH} - CH_3$

B. $CH_3 - CH_2 - CH_2 - NO_2$

C. $CH_3 - \overset{\overset{O-N=O}{|}}{CH} - CH_3$

D. $CH_3 - CH_2 - CH_2 - ON = O$

Answer: A

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16. Alkyl halide and silver nitrite produces.

A. silver oxide

B. nitroparaffins

C. dinitroparaffins

D. alkylnitrite

Answer: B

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17. Which of the following is obtained when 1-halobutane is heated with $AgNO_2$

A. 

B. 

C. 

D. 

Answer: A

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18. Product 'B' in the following reaction is

$$CH_3 - CH_3 + Br_2 \xrightarrow{AlBr_3} A \xrightarrow{AgNO_2} B$$

A. $CH_3 - CH_2 - ONO$

B. $CH_3 - CH_2 - NO_2$

C. $\begin{matrix} CH_2 & - & CH_2 \\ | & & | \\ NO_2 & & NO_2 \end{matrix}$

D. $\begin{matrix} CH_2 & - & CH_2 \\ | & & | \\ ONO & & ONO \end{matrix}$

Answer: B

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19. Product of the following reaction is

$$R - X + KNO_2 \xrightarrow{\text{dimethyl sulpoxide}} ?$$

A. $R - NO_2$

B. $R - ONO$

C. $R - OH$

D. $R - NH_2$

Answer: A

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20. Product of the following reaction .

$$CH_3CHClCH_3 + NaNO_2 \xrightarrow[\text{formamide}]{\text{N,N-dimethyl}}$$

A. $CH_3 - \overset{\overset{O-N=O}{|}}{CH} - CH_3$

B. $CH_3 - \overset{\overset{NO_2}{|}}{CH} - CH_3$

C. $CH_3 - CH_2 - CH_2 - ON = O$

D. $CH_3 - CH_2 - CH_2 - NO_2$

Answer: B

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21. Compound 'A' on halogenation gives B. Which is reacted with $NaNO_2$ in dimethyl sulphoxide gives 2-nitrobutane. The compound 'A' is

A. $CH_3CHOHCH_2CH_3$

B. $CH_3CHCICH_2CH_3$

C. $CH_3CH_2H_2CH_3$

D. $CH_3CH_2CH_2CH_2Cl$

Answer: C

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22. Compound 'A' is reacted with HX produces 'B' which is heated with silver nitrate gives 2-nitropropane. The compound 'A' is

A. $CH_3CH_2CH_3$

B. $CH_3CHOHCH_3$

C. $CH_3CH = CH_2$

D. both b and c

Answer: D

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23. Sodium salt of α-halo carboxylic acid is heated with sodium nitrite and followed by hydrolysis gives

A. amides

B. nitroparaffins

C. amines

D. alchols

Answer: B

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24. Product 'B' in the following reaction is

$$CH_3 - CH_2 - \underset{\underset{X}{|}}{CH} - COONa + NaNO_2 \xrightarrow{\Delta} A \xrightarrow{H_2O} B$$

A. 2-nitropropane

B. 1-nitropropane

C. propanamine

D. propanal

Answer: B

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25. Find out product D in the following sequence of reaction .

$$CH_3 - CH_2 - COOH + Na \rightarrow A \xrightarrow{Br_r / Red.P.} B \xrightarrow{NANO_2} C \xrightarrow{H_2O} D$$

A. $CH_3 - CH_2 - NO_2$

B. $CH_3 - CH_2 - CH_2 - NO_2$

C. $CH_3 - \overset{NO_2}{\overset{|}{C}}H - CH_3$

D. $CH_3 - CH_2 - CH_2 - NO_2$

Answer: A

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26. Tertiary alkyl amines on oxidation by $KMnO_4$ gives

A. 1° - nitroalkane

B. 2° - nitroalkane

C. 3° - nitroalkane

D. 3° - alcohols

Answer: C

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27. State the product available by the following reaction

$$CH-\underset{\underset{CH_3}{|}}{\overset{\overset{CH_3}{|}}{C}}-NH_2 \xrightarrow[[O]]{KMnO_4}$$

A. 

B. 

C. 

D. 

Answer: C

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28. Nitroparaffins are obtained by oxidation of

A. 3° amines

B. a-halocarboxylic acid

C. acid amide

D. 3° alkyl amines

Answer: D

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29. α -nitroalkene is converted into nitroalkane by

A. oxidation

B. treating it with KNO_2 and followed by hydrolysis

C. acid hydrolysis

D. alkaline hydrolysis

Answer: C

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30. Acid hydrolysis of following compound gives

$$CH_3 - \overset{CH_3}{\underset{|}{C}} = CH - NO_2 \xrightarrow{H_3O^+} ?$$

A. $CH_3, CH = CH_2$ and $CH_3 - NO_2$

B. $CH_2 = CH_2$ and $C_2H_5 - NO_2$

C. $CH_3CO - CH_3$ and $CH_3 - NO_2$

D. $CH_3 - CHOH - CH_3$ and $CH_3 - N0_2$

Answer: C

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31. In which of the following reaction product obtained has less number of carbon atom than reactants?

1. acid hydrolysis of α-nitroalkene

2.oxidation of aldehydes

3.oxidation of ketones

4. oxidation of 3° alkyl amine

A. 2,3

B. 1,4

C. 2,4

D. 1,3

Answer: D

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32. Reaction involved during conversion of 3° alkyl amine to 3° nitro alkane

A. hydrolysis

B. reduction

C. oxidation

D. pyrolysis

Answer: C

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33. Find out A in the following reaction

$$CH_3 - CH = CH_2 - NO_2 \xrightarrow{A} CH_3 - CHO + CH_3 - CH_2 - NO_2$$

A. $KMnO_4$

B. H_2O^+

C. $LiAIH_2$

D. PCC^4

Answer: B

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34. Oxidation of oxime produces

A. 1° amines

B. nitro alkanes

C. aldehydes

D. ketones

Answer: C

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35. Aldoxime on oxidation by trifluoroperoxy acetic acid gives

A. 1° - amines

B. 2° - amines

C. 1° - nitroparaffins

D. 2° - nitroparaffins

Answer: C

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36. Ketoxime on oxidation by trifluoroperoxy acetic acid gives

A. 1° - nitroparaffins

B. 2° - nttroparaffins

C. 3° - nitroparaffins

D. 1° - amines

Answer: B

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37. Product of the following reaction is

$$CH_3 - \overset{\overset{CH_3}{|}}{CH} - CH = NOH \xrightarrow[\text{acetic acid}]{\text{trifluorop eroxy}}$$

A. 

B. 

C. 

D. 

Answer: D

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38. Propionaldoxime is reacted with trifluoroperoxy acetic acid gives

A. propan-1-amine

B. propan-2-amine

C. 1-nitropropane

D. 2-nitropropane

Answer: C

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39. Acetoxime on reaction with trifluoroperoxy acetic acid gives

A. 1-nitropropane

B. 2-nitropropane

C. propionic acid

D. isobutyric acid

Answer: B

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40. The reagent used to convert alkyl halide to nitroalkane are

1. $AgNO_2$

2. $KMnO_4$ in dimethylsulphoxide

3. acidic $KMnO_4$

4. HNO_3

A. 1,4

B. 2,3

C. 1,3

D. 1

Answer: D

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41. Ketoximes are oxidised into 2°-nitroalkane by using

A. $kMnO_4$

B. $K_2Cr_2O_7 + dil.\ H_2SO_4$

C. trifluoroperoxy acetic acid

D. pyridinium chlorochromate

Answer: C

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42. During conversion of oxime to nitroparaffins, which reaction is involved?

A. reduction

B. oxidation

C. acid hydrolysis

D. alkaline hydrolysis

Answer: B

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43. Find out final product of the following reaction Butan-2-one $+NH_2-OH \rightarrow A \xrightarrow{[O]} B$

A. 

B. 

C. 

D. 

Answer: B

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44. The unknown organic compound reacts with hydroxyl amine and followed by oxidation using trifluoroperoxy acetic acid gives 3-nitro pentane. The unknown organic compound is

A. 

B. 

C. 

D. 

Answer: D

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45. Product A in the following reaction is

$$H_2C = NOH \xrightarrow{\text{trifluorop eroxy acetic acid}} A$$

A. formic acid

B. nitromethane

C. methyl nitrite

D. methanal

Answer: D

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46. 1-nitro prop-1-ene on acid hydrolysis gwes

A. nitroethane and formaldehyde

B. nitroethane and formic acid

C. nitromethane and acetic acid

D. nitromethane and acetaldehyde

Answer: D

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47. $1^\circ, 2^\circ \text{ and } 3^\circ$ nitroalkanes can be distinguished by

1. acid hydrolysis

2. halogenation

3. reaction with nitrous acid

A. 1,3

B. 1,2

C. only 3

D. 1,2,3

Answer: D

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48. Reduction of nitroalkane produces

(1) 1° -amines

(2) N-alkyl hydroxyl amine

(3) oxime

A. 1,3

B. 1,2

C. only 3

D. 1,2,3

Answer: D

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49. Nitroalkanes are reduced by $Zn + NH_4Cl$ gives

A. 1° - amines

B. N-alkyl hydroxyl amine

C. oxime

D. amide

Answer: B

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50. During conversion of nitroalkane to N-alkyl hydroxyl amine, which of the following reducing agent is used?

A. $Sn + co \neq . HCl$

B. H_2 / Ni

C. $Zn + NH_4Cl$

D. $SnCl_2 + HCl$

Answer: C

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51. Nitroalkane is reduced by stannous chloride and HCl gives

A. 2° - amine

B. only oxime

C. only N-alkyl hydroxyl amine

D. mixture of oxime and N-alkyl hydroxyl amine

Answer: D

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52. $SnCl_2 + HCl$ convert

A. $-CHO$ to $-CH_2,\ -OH$

B. $>C=O$ to $>CH-OH$

C. $-NO_2$ to $-NH_2$

D. $-NO_2$ to =NOH

Answer: D

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53. Product of the following reaction is $CH_3-CH_4-CH_2-NO_2 \xrightarrow{Zn+NH_4Cl}$?

A. 

B. 

C. 

D. 

Answer: B

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54. Reduction of the following compound would yield mixture of N-ethyl hydroxyl amine and acetaldoxime

A. $C_2H_5 - NH_2$

B. $C_2H_5 - CONH_2$

C. $CH_3 - NO_2$

D. $CH_3 - CONH_2$

Answer: A

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55. Find out 'A' in the following reaction :

$$CH_3 - \overset{\overset{NH_2}{|}}{CH} - CH_3 \xrightarrow{Zn + NH_4Cl} ?$$

A. 

B. 

C. 

D. 

Answer: C

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56. The compound obtained by catalytic hydrogenation of nibrobenation of nitrobenzene is

A. aniline

B. benzaldoxine

C. benzyl nitrite

D. phenyl nitrite

Answer: A

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57. N-isopropyl hydroxyl amine is obtained by reduction of

A. $CH_3 - \overset{NO_2}{\overset{|}{C}}H - CH_3$ and $Zn + NH_4Cl$

B. $CH_3 - \overset{NO_2}{\overset{|}{C}}H - CH_3$ and $SnCl_2 + HCl$

C. $CH_3 - \overset{NO_2}{\overset{|}{C}}H - CH_3$ and $Fe + conc.\ HCl$

D. $CH_3 - \overset{NO_2}{\overset{|}{C}}H - CH_3$ and H_2 / Ni

Answer: A

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58. Acid hydrolysis of 3^0 - nitroalkane give

A. ketones

B. carboxylic acids

C. aldehydes

D. no product

Answer: D

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59. 2^0- nitroparaffins on acid hydrolysis will give

A. aldheydes

B. carboxylic acids

C. ketones

D. amide

Answer: C

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60. What of the following does't undergoes acid hydrolysis ?

A. $CH_3 - NHO_2$

B. $CH_3 - \underset{\substack{| \\ NO_2 \\ CH_3}}{CH} - CH_3$

C. $CH_3 - \underset{\substack{| \\ CH_3}}{\overset{\overset{|}{}}{C}} - NO_2$

D. $C_2H_5 - NO_2$

Answer: C

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61. The acid hydrolysis which of the following will gives acetic acid

(1) $CH_3 - CN$

(2) $CH_3 - CH_2 - NO_2$

(3) $CH_3 - \underset{\underset{CH_3}{|}}{CH} - NO_2$

(4) $C_2H_5 - NO_2$

A. only 1,3

B. 1 and 2

C. only 3

D. 1,2,3

Answer:

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62. Propionic acid is obtained by acid hydrolysis of

A. $CH_3 - CH_2 - CH_2 - NO_2$

B. $CH_3 - \underset{\underset{CH_3}{|}}{\overset{\overset{NO_2}{|}}{CH}} - CH_3$

C. $CH_3 - CH_2 - CH_2 \_ CN$

D. $CH_3 - \underset{\underset{CH_3}{|}}{\overset{\overset{CH_3}{|}}{C}} - NO_2$

Answer: A

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63. The Proudct formed in following reaction is $CH_3 - \overset{\overset{NO_2}{|}}{CH} - CH_3 \xrightarrow{H_3O^+} ?$

A. $CH_3 - CH_2 - CHO$

B. $CH_3 - \overset{\overset{CH_3}{|}}{CH} - COOH$

C. $CH_3 - \overset{CH_3}{\overset{|}{C}} = O$

D. $CH_3 - \overset{CH_3}{\overset{|}{C}}H - OH$

Answer: C

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64. Which of the following compoud will not gives ketones on acid hydrolysis.

A. $CH_3 - \overset{NO_2}{\overset{|}{C}}H - CH_3$

B. $CH_3 - \overset{NO_2}{\overset{|}{C}}H - CH_2 - CH_3$

C. $CH_3 - CH_2 - \overset{NO_2}{\overset{|}{C}}H - CH_2 - CH_3$

D. $CH_3 - \overset{OH}{\overset{|}{C}}H - CH_2 - CH_3$

Answer: D

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65. 2- Nitrbutance is heated with dil H_2SO_4 gives

A. $CH_3 - \overset{OH}{\overset{|}{C}}H - CH_2 - CH$

B. $CH_3 - \overset{O}{\overset{||}{C}} - CH_2 - CH_2 - CH_3$

C. $CH_3 - \overset{O}{\overset{||}{C}} - CH_2 - CH_3$

D. $CH_3 - \overset{OSO_3H}{\overset{|}{C}}H - CH_2 - CH_3$

Answer: C

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66. Which of the following reaction will gives acetone ?

(1) $CH_3 - CN + CH_3MgX \xrightarrow[H_3O^+]{\text{dry ether}}$

(2) $CH_3 - \overset{OH}{\overset{|}{C}}H - CH_3 \xrightarrow{[O]}$

$CH_3 - \overset{OH}{\overset{|}{C}}H - CH_3 \xrightarrow{\text{dil . HCl}}$

A. 1,2

B. 1,3

C. 2,3

D. 1,2,3

Answer: D

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67. Chlorination of nitr methane gives

A. $CH_3 - Cl$

B. $Cl_3C - NO_2$

C. Cl_2CH_2

D. CCl_4

Answer: B

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68. In halogention of nitroalkane

A. all halogon are replaced by halogenes

B. all α -H are replaced by halogens

C. all β - H are replaced by halogens

D. only one α -H replaced by halogaen

Answer: B

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69. Halogenation of nitroparaffins is the characteristic reaction of

A. α - H atoms

B. βH atoms

C. $\gamma - H$ atoms

D. $\delta - H$ atoms

Answer: A

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70. Which of the following is nitroso nitroalkane of primary nitro alkane ?

A. $R-\underset{\underset{R}{|}}{\overset{\overset{NO_2}{|}}{C}}-N=O$

B. $R-\underset{\underset{R}{|}}{\overset{\overset{O-NO_2}{|}}{C}}-N=O$

C. $R-\underset{\underset{H}{|}}{\overset{\overset{NO_2}{|}}{C}}-N=O$

D. $R-\underset{\underset{H}{|}}{\overset{\overset{O-NO}{|}}{C}}-N=O$

Answer: C

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71. Product of following reaction will be $CH_3-CH_2-NO_2+Cl\xrightarrow{NaOH}?$

A. $CH_3-CHCl-NO_2$

B. $ClCH_2-CH_2-NO_2$

C. $CH_3-CCl_2-NO_2$

D. $Cl_3C - CH_2 - NO_2$

Answer: C

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72. Product in the following sequence of reaction $R_3C - NH_2 \xrightarrow{KMnO_4} A \xrightarrow{Cl_2 / NaOH} B$

A. $CCl_3 - NO_2$

B. $R - \underset{\underset{R}{|}}{CH} - NO_2$

C. $R_2CCl - NO_2$

D. no product

Answer: D

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73. In the reaction $CH_3 - CH_2 - Br + NaNO_2 \xrightarrow[\text{sulphoxide}]{\text{dimethyl}} A \xrightarrow{Cl_2 / NaOH} B$ The product B is

A. $CH_3 - CH_2 - NO_2$

B. $CH_3 - CCl_2 - NO_2$

C. $Cl_2CH_2 - CH_2 - NO_2$

D. $Cl_2CH - CH_2 - NO_2$

Answer: B

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74. Which of the following compound does not react with alkaline brome

A. $CH_3 - \overset{NO_2}{\overset{|}{C}}H - CH_3$

B. $CH_3 - \overset{NO_2}{\underset{|}{CH}} - CH_2 - CH_3$

C. $CH_3 - \overset{CH_3}{\underset{CH_3}{\overset{|}{\underset{|}{C}}}} - NO_2$

D. $CH_3 - CH_2 - NO_2$

Answer: C

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75. 1^0 -nitroalkane react with HNO_2 gives

A. dinitroalkane

B. nitroso nitroalkane

C. N-alkyl hydroxyl amine

D. nitrosoamine

Answer: B

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76. Nitrosonitroalkane is obtained by 2^0 - nitroalkane with

A. HNO_3

B. HNO_2

C. $AgNO_2$

D. KNO_2

Answer: B

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77. Which of the follwing will not undergoes tautomerisation ?

A. $(CH_3)_3C - NO_2$

B. $CH_3 - CH_2 - NO_2$

C. $CH_3 - NO_2$

D. $CH_3 - CH_2 - CH_2 - NO_2$

Answer: A

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78. Which of the following does not under goes acid hydrolysis ?

A. $CH_3 - \overset{\overset{CH_3}{|}}{\underset{\underset{CH_3}{|}}{C}} - NO_2$

B. $CH_3 - \overset{\overset{NO_2}{|}}{CH} - CH_3$

C. $CH_3 - CH_2 - NO_2$

D. $CH_3 - NO_2$

Answer: A

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79. Blue coloured pseudonitrol is formed from nitrous acid and what

A. $CH_3 - NO_2$

B. $CH_3 - \underset{\underset{NO_2}{|}}{CH} - CH_3$

C. $C_2H_5 - NO_2$

D. $(CH_3)_2 - NO_2$

Answer: B

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80. Which of the following does not react with nitrous acid ?

1.$CH_3 - NH_2$ 2. $(CH_3)_3N$

3.$C_2H_5 - NH_2$ 4. $(CH_3)_2NH$

5.$(CH_3)_3C - NO_2$ 6. $C_2H_5 - NO_2$

A. 2,3

B. 4,5

C. 5,6

D. 2,5

Answer: D

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81. The following compound is $CH_3 - \overset{\overset{CH_3}{|}}{\underset{\underset{NO_2}{|}}{C}} - N = O$

A. pseudonitrol

B. pseudonitrol of 1° nitroalkane

C. nitronic group

D. nitroso isopropyl nitrite

Answer: A

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82. Compound formed when nitroethane reacts with nitrous acid.

A. ethanamine

B. nitroso nitroethane

C. dimethyl nitroso amine

D. ethanol

Answer: B

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83. Pseudonitrol is formed from nitrous acid and what ?

A. $CH_3 - CH_2 - CH_2 - NO_2$

B. $CH_3 - CH_2 - NO_2$

C. $CH - \underset{\underset{CH_3}{|}}{\overset{\overset{CH_3}{|}}{C}} - NO_2$

D. $CH_3 - \underset{\underset{NO_2}{|}}{CH} - CH_3$

Answer: D

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84. Read colour sodium salt is obtained by acid form react with .

A. Na_2SO_4

B. $NaOH$

C. $NaHSO_3$

D. CH_3COONa

Answer: B

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85. Acid form of 1^0 nitroalkane is

A. red colour

B. blue colour

C. yellow colour

D. white colour

Answer: B

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86. Nitroalkane condensed with aldehyde and ketone to from nitroalchol. The main condition of nitroalkane is

A. absence of α -H atoms

B. absence of β - H atoms

C. presence of α - H atoms

D. it must be tetrary

Answer: C

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87. 3-ntrio 2-methyl butane -2-ol is the condensation products of

A. ethnal and nitromethane

B. acetone and nitromethane

C. acetone and nitroethane

D. methanal and 1-nitropane

Answer: C

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88. Prouduct of the following reaction will be

$CH_3 - CH_2 - CHO + CH_3 - NO_2 \xrightarrow{alc.KOH}$

A. 

B. 

C. 

D. 

Answer: C

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89. When carbonyl compound react with nitrolkane . The reaciton proceding through

A. carbocation

B. carbon free radical

C. carbene

D. carbanion

Answer: D

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90. α - H atoms of nitroalkane is

A. acidic

B. basic

C. neutral

D. can't be predicted

Answer: A

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91. Nef - carbonyl synthesis is used to produce

A. carboxylic acids or esters

B. aldehydes or ketones

C. alcohols or ethers

D. oxime or amide

Answer: B

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92. The compound obtained by reaction following compound with 50% H_2SO_4

$$CH_3 - CH_2 - \overset{CH_3}{\underset{|}{C}} = \overset{O^-}{\underset{|}{C}}\\ \qquad\qquad\qquad\qquad\quad \underset{ONa}{|}$$

A. $CH_3 - CH_2 - CO - CH_2 - CH_3$

B. $CH_3 - CH_2 - CH_2COOH$

C. $CH_3 - CO - CH_2 - CH_3$

D. $CH_3 - CH_2 - CH_2 - CH_2 - OH$

Answer: C

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93. Which of the following is Nef-Carbonyl synthesis

A. $H - CHO + CH_3 - NO_2 \xrightarrow{alc.KOH}$

B. $R - COCl \xrightarrow[\text{quinoline}]{Pd - BaSO_4}$

C. $R - \overset{\overset{O}{||}}{C} - OH \xrightarrow{LiAlH_4}$

D. 

Answer: D

View Text Solution

94. Which of the following does not condense with aldehydes or ketones.

A. $CH_3 - NO_2$

B. $C_2H_5 - NO_2$

C. $(CH_3)_2CH - NO_2$

D. $(CH_3)_3 - NO_2$

Answer: D

View Text Solution

95. Prouduct of the following reaction is

A. 

B. 

C. 

D. 

Answer: C

View Text Solution

96. Regent 'A' in the following reaction is

$$H-CHO+CH_3-NO_2 \xrightarrow{A} H-\underset{H}{\overset{OH}{\underset{|}{\overset{|}{C}}}}-CH_2-NO_2$$

A. 20%KOH

B. 50%KOH

C. alc.KOH

D. $SnCl_2 + HCl$

Answer: C

View Text Solution

97. Which of the following compound does not react with $NaNO_2$ and HCl

A. $C_6H_5 - NH_2$

B. $CH_3 - CH_2 - NO_2$

C. $C_2 - CH_2 - NH_2$

D. $(CH_3)_3C - NO_2$

Answer: D

View Text Solution

98. Hydrolysis of $CH_3 - CH_2 - NO_2$ with 85% H_2SO_4 gives

A. $CH_3 - CH_2 - CH_2 - OH$

B. $CH_3 - CH_2 - COOH$

C. $CH_3 - CH_2 - CH_3$

D. $CH_3 - CH_2 - CH = NOH$

Answer: B

View Text Solution

99. Depending upon the reducing agent , the reduction of nitro paraffins may gives.

1. 1^0 amine

2. 2^0 - amine

3. 3^0 amine

4 .N - alkyl hydroxgyl amine

A. only 1

B. 1,2,3

C. only 2

D. 1,4

Answer: D

View Text Solution

100. Primary nitrocompounds react with nitrous acid to from nitrolic acid which dissolve inNaOH to give.

A. yellow solution

B. red solution

C. blue solution

D. colourless solution

Answer: B

View Text Solution

101. The different behavior 1^0, 2^0, 3^0 nitrolkanes on the basis of

A. Victor Mayer's test

B. Lucas test

C. Hinsberg test

D. Tollen's test

Answer: A

View Text Solution

102. Which of the following in not nitro compounds

A. $C_6H_5 - NO_2$

B. $(CH_3)_2CH - NO_2$

C. $CH_3 - O - N = O$

D. $(CH_3)_3C - NO_2$

Answer: C

View Text Solution

103. In Nef - Carbonyl synthesis of 1^0 - nitro alkane treatment with NaOH followed by acidification with 50% H_2SO_4 gives.

A. aldehydes

B. esters

C. ketones

D. carboxylic acids

Answer: A

View Text Solution

104. Which of the following isomerism is exhibited in nitrogen ?

A. geometrical

B. optical

C. tautomerism

D. chainisom

Answer: C

View Text Solution

105. Nitroalkane are acidic only towards

A. $NaCO_2$

B. $C_2H_5 - OH$

C. NaOH

D. NH_3

Answer: C

View Text Solution

106. Reducution on nitroalkane in neutral medium $(Zn + NH_4Cl)$ froms mainly

A. $R - NH_2$

B. $R - NH - OH$

C. $R - N = N - Cl$

D. $CH_3 - CH = N - OH$

Answer: B

View Text Solution

107. A nitrogenous compound is treated with nitrous acid and the prodruct so fromed in further treated with NaOH soluiton which produces blue colouration . The nitrogenous compoud is

A. $CH_3 - CH_2 - CH_2 - NH_2$

B. $CH_3 - CH_2 - NO_2$

C. $CH_3 - CH_2 - O - N = O$

D. $CH_3 - \underset{\underset{NO_2}{|}}{CH} - CH_3$

Answer: D

View Text Solution

108. In Nef- Carbonyl synthesis of 2- nitropropane on treatment with strong alkali and followed by acification with 50% H_2SO_4 gives a product , which will gives.

A. Tollen's test

B. Haloform test

C. Hinsberg test

D. Carbyl amine reaction

Answer: B

View Text Solution

109. $CH_3H_7, NO_2 + NaOH \rightarrow A \xrightarrow{50\% H_2SO_4} B$ Hence compound 'B' will give

A. $CH_3 - CH_2 - CH_2 - O - N = O$

B. $CH_3 - \underset{\underset{NO_2}{|}}{CH} - CH_3$

C. $CH_3 - CH_2 - CH_2 - NO_2$

D. $CH_3 - \underset{\underset{ONO}{|}}{CH} - CH_3$

Answer: C

View Text Solution

110. Sodium salt of acid form of ethyl methyl nitromic acids is treated with 50% H_2SO_4 gives

A. $CH_3 - CH_2 - CH_2 - COOH$

B. $CH_3 - CO - CH_2 - CH_3$

C. $CH_3 - CO - CH_3$

D. $CH_3 - CH_2 - CHO$

Answer: B

View Text Solution

111. A nitroalkane reaction with HNO_2 to yield a product which is insoluble in $NaOH$ and give blue colour on treatment with alkali. The nitroalkane could be

A. $CH_3 - CH_2 - NO_2$

B. $(CH_3)_3C - NO_2$

C. $CH_3 - \underset{\underset{|}{NO_2}}{CH} - C_2H_5$

D. $(CH_3)_2CH - CH_2 - NO_2$

Answer: C

View Text Solution

112. An aliphatic nitro compound turn red with the addition of conc. NaOH , followed by addition of excess HNO_2 . The colour disapper with the addition of excess acid but reapear if the solution is made alkaline. The aliphatic nitro compound is .

A. $CH_3 - CH_2 - NO_2$

B. $CH_3 - \underset{\underset{NO_2}{|}}{CH} - CH_3$

C. $CH_3 - \underset{\underset{CH_3}{|}}{\overset{\overset{CH_3}{|}}{C}} - NO_2$

D. $CH_3 - \underset{\underset{NO_2}{|}}{CH} - C_2H_5$

Answer: A

View Text Solution

113. The product obtained in the following reaction $CH_3 - NO_2 + Cl_2 + NaOH \rightarrow$

A. $Cl - CH_2 - NO_2$

B. $Cl_2CH - NO_2$

C. $Cl_3C - NO_2$

D. all of these

Answer: D

View Text Solution

114. While is the product when nitrobenzene is treated with zinic dust and ammoniun chloride

A. benzene

B. anilne

C. phenyl hyroxyl amine

D. azobenzen

Answer: C

View Text Solution

115. The conversion of nitroaklane to primary amine is carried out by

A. reduction

B. oxidation

C. hydrolysis

D. dehydration

Answer: A

View Text Solution

116. Compound which does not tautomerise and does not show acidic property is

A. $CH_3 - NO_2$

B. $C_2H_5 - NO_2$

C. $(CH_3)_2CH - NO_2$

D. $(CH_3)_3C - NO$

Answer: D

View Text Solution

117. $R - CH_2 - NO_2 \xrightarrow{Dil.\ H_2SO_4} A + B$ A, B are respectively

A. R-COONH, NH_2OH

B. $R - COOH$, NH_4OH

C. $RCONHOH$, NH_3

D. $RCONH_2$, $ROOH$

Answer: A

View Text Solution

118. Chloropicrin is used as

A. antiseptic

B. antibiotic

C. insectide

D. anaesthetic

Answer: C

View Text Solution

119. Amines are

A. mono alkyl derivative of ammonia

B. dialkyl derivative of ammonia

C. trialky dervation of ammoina

D. all of these

Answer: D

View Text Solution

120. A secondary amine is

A. a compound with two caron atoms and an $-NH_2$ group

B. a compound containing two $-NH_2$ group

C. a compound in which hydrogens of NH_3 have been replaced by two alkyl groups

D. a compounds with an $-NH_2$ group on carbon atom in number two position .

Answer: C

View Text Solution

121. Which of the following is secondary amine ?

A. Sec.butyl amine

B. Iso propyl amine

C. Diethyl amine

D. All of these

Answer: C

View Text Solution

122. Which of the following is not tertiary amine ?

A. $(CH_3)_3N$

B. $(C_2H_5)_3N$

C. $(C_2H_5)_2NCH_3$ is

D. $(CH_3)_3CNH_2$

Answer: D

View Text Solution

123. $(CH_3)_2CHNH_2$ is

A. 1^0 amines

B. 2^0 amines

C. 3^0 amine

D. all of these

Answer: A

View Text Solution

124. Nitrogen atom is amines is

A. sp^2 - hydridised

B. sp- hydridised

C. sp^3 - hybridised

D. sp^2 - hydbridised

Answer: C

View Text Solution

125. 3^0 amines contain

A. nitrile group

B. imino group

C. nitro group

D. amino group

Answer: A

View Text Solution

126. Tertiry amine contains

A. $-NH_2$ group

B. $>NH$ group

C. N group

D. none of these

Answer: C

View Text Solution

127. Imino group is present in

A. 1^0 amins

B. 2^0 amine

C. 3^0 amine

D. quaternary ammonium salt

Answer: B

View Text Solution

128. Secondary amines are represented by

A. $-NH_2$ group

B. $> NH$

C. $> N$

D. $-NO_2$

Answer: B

View Text Solution

129. All amines have general formula

A. $C_nH_{2n}NH_2$

B. $C_nH_{2n}N$

C. $C_nH_{2n+3}N$

D. $C_nH_{2n+2}N$

Answer: C

View Text Solution

130. The IUPAC name for,$(CH_3)_2NC(CH_3)_3$

A. N,N-dimethyl -2 -methylpropen -1-amine

B. N,N-dimethyl -2-methylpropan - 2 - amine

C. dimethylt-butyl amine

D. N,N-dimethyl 2-butanamine

Answer: B

View Text Solution

131. The structural formula of N-methyl methanamine is

A. $(CH_3)_2CHNH_2$

B. $(CH_3)_2NH$

C. $(CH_3)_3N$

D. CH_3NH_2

Answer: B

View Text Solution

132. IUPAC name of $CH_3N_3(C_2H_5)_2$ is

A. diethyl methyl amine

B. diethyl methanamine

C. N-ethyl methanamin

D. ethyl methyl amine

Answer: C

View Text Solution

133. IUPAC name of 1^0 amine is

A. alkyl amine

B. dialkanamine

C. alkanamine

D. trialkanamine

Answer: C

View Text Solution

134. IUPAC name ethyl menthyl amine is

A. ethyl methanamine

B. N-methyl ethanamine

C. diethyanamine

D. dimethanamine

Answer: B

View Text Solution

135. what is IUPAC name of compound when imino group is attached to ethyl and n-propyl group ?

A. N-Ethylisopropyl amine

B. N-Ethylpropan -2- amine

C. N-Ethylpropan -1- amine

D. N-Ethylbutan-1- amine

Answer: C

View Text Solution

136. IUPAC name of following compound is $(CH_3)_2N - C_2H_5$

A. ethyl methylmethanamine

B. N,N-dimethylethanamine

C. ethyl dimethanamine

D. methyl ethanamine

Answer: B

View Text Solution

137. IUPAC name of isobutyl amine is

A. 2-methylpropan - 2- amine

B. 2- methylprop -2-amine

C. 2-methylbutan -2- amine

D. propan - 2 - amine

Answer: C

View Text Solution

138. IUPAC name of t-butyl amine is

A. 2-methylpropana -2- mine

B. trimethanmine

C. N,N-dimethylmethanamine

D. N-methyl diethanamine

Answer: A

View Text Solution

139. How many metamers are possible for 2^0 amines of formula $C_5H_{13}N$?

A. 5

B. 6

C. 7

D. 8

Answer: B

View Text Solution

140. Which of the following is sulphanilic acid .

A. 

B. 

C. 

D. 

Answer: B

View Text Solution

141. Hybridised state of N-atoms in trimethyl amine is

A. sp^3

B. sp^2

C. sp

D. $sp^3 - d$

Answer: A

View Text Solution

142. Which of the following is incorrect IUPAC name ?

A. N-(propyl) propan -2-amine

B. N-(2-propyl) porpan -1- amine

C. dimethylethanamine

D. N-ethylcyclohexnamine .

Answer: A

View Text Solution

143. Which of the following is benzyl amine ?

A. 

B. 

C. 

D. 

Answer: A

View Text Solution

144. Tertiary alkyl amine is

A. 1^0 - amine

B. 2^0 - amine

C. 3^0 - amine

D. quaternary salt

Answer: A

View Text Solution

145. How many metamers are possible for molecular formula C_4, H_{11}, N.

A. 0

B. 2

C. 3

D. 4

Answer: C

View Text Solution

146. Molecular formula C_3H_9N can shown.

(1) chain isomerism

(2) position isomerism

(3) functional isomerism

(4) metamerism .

A. 1,3

B. 3,4

C. 1,2

D. 2,3

Answer: D

View Text Solution

147. In which of the following imino group is present.

A. 

B. 

C. 

D. 

Answer: B

View Text Solution

148. IUPAC name of the following compound is 

A. 4-carboxylphenylenediamine

B. 1-carboxylphenylenediamine

C. 2,4-diaminobenzoic acid

D. 4-carobxyl -3- amino aniline

Answer: C

View Text Solution

149. $(CH_3)_2C-NH_2$ and $(CH_3)_3$ N are

pair of optical isomers 2 identical

3) chain isomers (4) function isomers

(5) not idential .

A. 1,4

B. only 4

C. only 5

D. all of these

Answer: C

View Text Solution

150. Which of the following statement is not true about $(CH_3)_3N$?

A. It's IUPAC name is trimethanamine

B. N-atom is sp^3 - hydridised state

C. it has pyramidal structure

D. It contain imino group

Answer: D

View Text Solution

151. Total number of isomeric 1^0, 2^0, 3^0 amines can be calculated by formula .

A. $I + 2^n$

B. $I = 2^{n-2}$

C. $I = 2^{n-3}$

D. $I = 2^{n-1}$

Answer: D

View Text Solution

152. Ethyl amine and dimethyl amine are

A. metamers

B. position isomer

C. chain isomers

D. function isomers

Answer: D

View Text Solution

153. Which isomerism is not present in amines ?

A. Functional

B. position

C. chain

D. Cis and trans

Answer: D

View Text Solution

154. How many 2^0 amines are possible for molecule formula $C_4, H_{11}N$?

A. 2

B. 3

C. 4

D. 5

Answer: B

View Text Solution

155. How many 3^0 amines are possible for molecule for molecular fomula $C_4H_{11}N$?

A. 1

B. 2

C. 3

D. 4

Answer: A

View Text Solution

156. Molecualar formula $C_4H_{11}N$

A. chain isomerism

B. position isomerism

C. funcitonal isomerism

D. all of these

Answer: D

View Text Solution

157. $C_4H_{11}N$ represents

A. 1^0 amines

B. 2^0 amines

C. 3^0 amines

D. all of these

Answer: D

View Text Solution

158. In general formula of amines. If n = 3 the amine may be .

A. 1^0 and 2^0

B. 1^0 and 3^0

C. 2^0 and 3^0

D. all of these

Answer: D

View Text Solution

159. Isomerism shown by amines is / are

A. chain

B. position

C. functional

D. all of these

Answer: D

View Text Solution

160. Which of the following is not isomer of C_3H_9N?

A. $(CH_3)_3N$

B. $(CH_3)_2CHNH_2$

C. $C_2H_5NHCH_3$s

D. $(CH_3)_3CNH_2$

Answer: D

View Text Solution

161. Molecular formual C_2H_7Nshown which type of isomerism ?

A. 1

B. 2

C. 3

D. 4

Answer: B

View Text Solution

162. C_3H_9N represent

A. 1^0 amine

B. 2^0 amine

C. 3^0 amine

D. all of these

Answer: B

View Text Solution

163. Molecular formula C_2H_7N represents

A. 2^0 and 3^0 amines

B. 1^0 and 2^0 amine

C. only 1^0 amines

D. only 2^0 amine

Answer: B

View Text Solution

164. Molecular formula C_2H_7N shows which types of isomerism ?

A. Position

B. Functional

C. Chain

D. Optical

Answer: B

View Text Solution

165. n-butyl amine and isobutyl amine are

A. chain isomers

B. position isomers

C. optical isomers

D. functional isomers

Answer: A

View Text Solution

166. The reduction alkyl cyandie with sodium and alcohol is called .

A. Mendius reduction

B. Clemmensoms reduction

C. Catalytic reduction

D. none of these

Answer: A

View Text Solution

167. Aldoxime on reduction with $Na + C_2H_5OH$ form

A. 1^0amines

B. 2^0 amines

C. 3^0 amines

D. alcohols

Answer: A

View Text Solution

168. Acetoxime on reduction and followed by acetylation gives

A. ethyl amine

B. isopropyl amine

C. monoacetyl isopropyl amine

D. diacetyl isopropyl amine

Answer: D

View Text Solution

169. The reduction of which of the following gives 1-propanamine ?

A. C_3H_7CN

B. $C_2H_5CH = NOH$

C. CH_3NO_2

D. $CH_3 - NH - CH_3$

Answer: B

View Text Solution

170. The reduction of acetaldoxime gives

A. $CH_3 - CH_2 - NH_2$

B. $CH_3 - NH_2$

C. $(CH_3)_3C - NH_2$

D. $CH_3 - NH - CH_3$

Answer: A

View Text Solution

171. Which of the following reagent is used to convert $-CN$ group to $-CH_2NH_2$ group ?

A. CrO_3

B. $Na + C_2H_5OH$

C. H_3PO_4

D. Al_2O_3

Answer: B

View Text Solution

172. Which of the following compound give methanamine on reduction ?

A. HCN

B. HCHO

C. CH_3CH

D. HCOOH

Answer: A

View Text Solution

173. On reduciton with Sn+conc. Hcl of $C_2H_5NO_2$ yields

A. esters

B. secondary alchohal

C. primary amine

D. secodary amine

Answer: C

View Text Solution

174. The reaction of CH_3CN to $CH_3CH_2NH_2$ is called

A. Mendius reduction

B. Rosenmund reduction

C. Hoffman reuction

D. Clemmenson reduction

Answer: A

View Text Solution

175. $-NO_2$ group is converted into -NH_2 group by the reaction

A. dehydration

B. alkaline hydrolysis

C. reduction

D. decarboxylation

Answer: C

View Text Solution

176. Which of the following reactions does not yield an amine ?

A. $RX + NH_3 \rightarrow$

B. $RCH = N - OH + H_2 \xrightarrow{Ni}$

C. $RCN + H_2O \xrightarrow{H^+}$

D. $R - NO_2 + 4H \xrightarrow{Sn + conc.HCl}$

Answer: C

View Text Solution

177. Ethylamine can be obtained by the aciton of

A. $NH_3 + C_2H_5l$

B. $C_2H_5CN + 4H$

C. both a and b

D. $HCHO + NH_3$

Answer: A

View Text Solution

178. Which of the following compounds gives a primary amine on readuction ?

A. Nitroalkane

B. Oximes

C. Alkyl cyanides

D. All of these

Answer: D

View Text Solution

179. Excess of bromo ethane reacts with alcholic ammonia to give,

A. ethyl amine

B. diethyl amine

C. triethyl amine

D. all of these

Answer: D

View Text Solution

180. Ketoxime on reduction gives

A. 1^0 amines

B. 2^0 amines

C. 3^0 amines

D. all of these

Answer: A

View Text Solution

181. Acetonitrile is treated with sodium and ethanol gives

A. methyl amine

B. acetic acid

C. ethyl amine

D. methanal

Answer: C

View Text Solution

182. Acetonitrile is treated with sodium and ethanol gives

A. dimethyl amine

B. acetic acid

C. ethyl amine

D. ethyl amine

Answer: B

View Text Solution

183. $R - NO_2 \xrightarrow{Sn + conc.\,Hcl} X$. In this reaction X is

A. $R - Cl$

B. $R - NH_2$

C. $R - SnCl_2$

D. $R - NH_3^+ Cl^-$

Answer: B

View Text Solution

184. CH_3NH_2 is obtained from NH_3 by

A. Hoffmans reaction

B. Cannizzaros reaction

C. Wurtz reaction

D. none of these

Answer: A

View Text Solution

185. Which of the following does not gives primary amine on reduction ?

A. RNO_2

B. RCHO

C. $R_2C = NOH$

D. RCN

Answer: B

View Text Solution

186. 2-nitro 2 -methyl propane on reduction gives

A. $(CH_3)_3N$

B. $(CH_3)_2NH$

C. $(CH_3)_3CNH_2$

D. $(CH_3)_2CHCH_2NH_2$

Answer: C

View Text Solution

187. nipropyl cyanide on reduction gives

A. n-butyl amine

B. n-propyl amine

C. isobutyl amine

D. t-butyl amine

Answer: A

View Text Solution

188. Which of the following in Mendius reduction ?

A. $RNO_2 + 6H \rightarrow$

B. $RCN + 4H \rightarrow$

C. $RCH = NOH + 4H \rightarrow$

D. $RNC + 2H_2 \rightarrow$

Answer: B

View Text Solution

189. Benzyl halide on ammonolysis produces

A. 

B. 

C. 

D. 

Answer: A

View Text Solution

190. The production (C) in following sequence of reaction

A. 

B. 

C. 

D. 

Answer: D

View Text Solution

191. Methyl amine is formed by reduction of

A. nitroethane

B. methyl cyanide

C. formamide

D. Acetaldoxime

Answer: C

View Text Solution

192. Ethyl amine is obtained by the action of sodium hypobromite of the following amide .

A. formamide

B. propanamide

C. acetamide

D. butanamide

Answer: B

View Text Solution

193. For alkylation of ammonia which of the following is not used

A. $CH_3 - X$

B. $CH_3 - CH_2 - X$

C. $(CH_3)_2CH - X$

D. $(CH_3)_3C - X$

Answer: D

View Text Solution

194. Hormann's hypobromite reaction is affords a method of

A. perparation of 1° alcohol

B. perparation of mixture of amines

C. stepping down the series

D. stepping up a series

Answer: C

View Text Solution

195. A primary amine is formed form amide , bromine and alkalie . The 1^0 amine has

A. one carbon less than amide

B. one carbon more than amide

C. one hydrogen less than amide

D. one hydrogen more than amide

Answer: A

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196. The major product in the follwing reaction .

A. 

B. 

C. 

D. 

Answer: D

View Text Solution

197. Which of the following will undergoes Hofman's reaction to give a 1^0 amine ?

A. 

B. 

C. 

D. 

Answer: B

View Text Solution

198. Potassium phthalimide react with A which on hydrolysis given 2-methyl propan -1- amine . What is 'A' ?

A. 

B. 

C. 

D. 

Answer: D

View Text Solution

199. Reduction of nitroparaffine gives

A. 1^0 amine

B. 2^0 - amine

C. 3^0 - amine

D. amide

Answer: A

View Text Solution

200. Tertiary amine can be obtained by

A. Gabriel pthalimide synthesis

B. hydrolysis

C. Thermal decomposition of quaternary ammonium salt

D. Reducution of nitroalkane by $Zn + NH_4Cl$

Answer: C

View Text Solution

201. Which of the following may be prepared by Gabriel Phthalimide synthesis

A. Aliphatic 1^0 - amine

B. Aromatic 1^0 -amine

C. Aliphatic 2^0 - amine

D. Aromatic 2^0 - amine

Answer: A

View Text Solution

202. $A \xrightarrow{\text{Reduction}} 1^0$ -amine

The compound A may be

(1) R-NC

(2) $R - CN$

(3) $R - CONH_2$

(4) $R - NO_2$

A. 1,2

B. 3,4

C. 2

D. 2,3,4

Answer: C

View Text Solution

203. Anilne is obtained by

A. Reduction of benzaldoxime

B. treading benzamide with NaOBr

C. treating acetphenone with hydroxyl amine

D. treating phthalimide with R - X

Answer: B

View Text Solution

204. From Gabriel phtalimide sythesis aromatic primary amine cannot be prepared .

A. Ar - X do nit undergoes nucleophilic substituion reaction

B. Ar-X is stable due to resonating structures

C. Ar-X is highly reactive due to C - X bond is very weak

D. Ar-X is not stable

Answer: A

View Text Solution

205. Potassium phthalimide is reacted with ethyl halide and followed by acid hydrolysis gives

A. ethanol

B. nitroethane

C. ethanamine

D. diethyl amine

Answer: C

View Text Solution

206. In Hofmann's hypobromide reaction

A. The alkyl group in amide migrate to oxygen atom

B. The alkyl group in amide migrate to oxygen atom

C. There is a no migration of alkyl group of amide

D. Hydrogen atom is migrated to carbonyl oxgyen atom of amide

Answer: A

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207. Product of the following reaction is

A. 

B. 

C. 

D. 

Answer: B

View Text Solution

208. Find out (B) in the following reaction

A. 

B. 

C. 

D. 

Answer: C

View Text Solution

209. Compound 'A' is oxidised by trifluoroperoxy acetic gives 'B' followed by reduction with Fe+ conc. HCl gives butan - 2 amine . The compound 'A' is .

A. 

B. 

C. 

D. 

Answer: C

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210. Product of the following reaction is

A. 

B. 

C. 

D. 

Answer: B

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211. Compound A is the following reaction is $A \xrightarrow{NH_3/\Delta} B \xrightarrow{Br_2+KOH}$

Butan -1- amine

A. 

B. 

C. 

D. 

Answer: C

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212. Amine are basic is nature according to

A. Arrhenious theory

B. Lewis theory

C. Lowary - Bronsted theroy

D. all of these

Answer: D

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213. In chemical reaction of amines, which act as

A. electrophiles

B. nucleophiles

C. neutral

D. acid

Answer: B

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214. Aniline have higher B.P than correspending alkane or ethers due to

A. Resonace stabilization of benzene ring

B. resonance stabilization of anilium ion

C. more hydrophobic nature of C_6H_5 group than C_2H_5group

D. more hydrophobic nature C_6H_5 group than C_2H_5 group

Answer: C

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215. Amine have higher B.P than corresponding alkane or ethers due to .

A. intermolecular hydrogen bonding

B. intramolecular hydrogen bonding

C. higher polar nature of C-N bond

D. Lone pair of electron on nitrogen atom

Answer: A

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216. In isomeric amine correct order has lowest B. P

A. $1 > 2^{\circ} > 3^{\circ}$

B. $3^{\circ} > 2^{\circ} > 1^{\circ}$

C. $2^\circ > ^\circ > 1^\circ$

D. $1^\circ > 3^\circ > 2^\circ$

Answer: A

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217. Which of the following has lowest B.P

A. $CH_3 - CH_2 - CH_2 - NH_2$

B. $CH_3 - \underset{\underset{NH_2}{|}}{CH} - CH_3$

C. $C_2H_5 - NH - CH_3$

D. $(CH_3)_3N$

Answer: D

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218. All amines are soluble in

A. water

B. HCl

C. CS_2

D. CCl_4

Answer: B

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219. Amines have lower B.P than

A. ethers

B. alkanes

C. alcholes

D. alkyl halide

Answer: C

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220. Which of the following is more solube in water .

A. 

B. 

C. 

D. 

Answer: A

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221. Basicity of amines in gaseous state is

(1) $(CH_3)_3N$ (2) $CH_3 - NH_2$

(3) $(CH_3)_2NH$ (4) NH_3

A. $1 > 2 > 3 > 4$

B. $1 > 3 > 2 > 4$

C. $3 > 1 > 2 > 4$

D. $2 > 3 > 1 > 4$

Answer: B

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222. Basicity of the following amines in aqueous medium is

(1) $CH_3 - NH_2$

(2) $(CH_3)_2NH$

(3) $(CH_3)_2N$

(4) NH_3

A. $1 > 2 > 3 > 4$

B. $3 > 2 > 1 > 4$

C. $2 > 1 > 3 > 4$

D. $2 > 3 > 1 > 4$

Answer: C

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223. In gaesous state the basicity of amine is

A. $1^\circ > 2^\circ > 3^\circ > NH_2$

B. $3^\circ > 2^\circ > 1^\circ$

C. $NH_3 > 3^\circ > 1^\circ > 2^\circ$

D. $2^\circ > 1^\circ > NH_3 > 3^\circ$

Answer: B

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224. Which of the following is correct statement about basicity of amine ?

A. 

B. 

C. 

D. 

Answer: B

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225. Which of the following is correct statement about basicity of a mines ?

(1) smaller the value of pKb weaker the base

(2) Electron donating group increases the basicity of amines

(3)d Electron withdrawing group decrease the basicity of amines

(3) Electron withdrawing group decrease the basicity of amines

(4) Aromatic amines are more basic than in aqueous amines ?

A. 1,4

B. 2,3

C. 2,4

D. 1,3

Answer: B

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226. Which of the follwing is less baisc in aqueous medium is

A. 

B. 

C. 

D. 

Answer: B

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227. Which of the following is more basic in aqueous medium is

A. 

B. 

C. 

D. 

Answer: D

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228. In which of the following 1^{st} is more basic is 2^{nd}

A. 

B. 

C. 

D. 

Answer: C

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229. Which of the following has more pKb value ?

A. $CH_3 - NH_2$

B. $C_2H_5 - NH_2$

C. $Cl - CH_2 - NH_2$

D. $HO - CH_2 - NH_2$

Answer: C

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230. Which of the following has more kb value ?

A. 

B. 

C. 

D. 

Answer: A

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231. Aryl amines are less basic than alkyl amine and ammonia which is due to

A. In aryl amine lone pair of electron on nitrogen is conjugation with benzens ring and thus making less avaible for protonation

B. less stability of anilim ion than alkyl ammonium ion

C. Aniline forms hydrogen bond with water

D. In anilient intermolecular hydrogen bonding is pressent

Answer: A

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232. Correct order of B.P of amine ios

A. $CH_3 - NH_2 > (CH_3)_2NH > (CH_3)_3N$

B. $(CH_3)_2NH > CH_3 - NH_2 > (CH_3)_3N$

C. $(CH_3)_3N > (CH_3)_2NH > CH_3 - NH_2$

D. $(CH_3)_2NH > (CH_3)_3N > CH_3 - NH_2$

Answer: B

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233. Mark the correct statement

A. methyl amine is slightly acidic

B. methyl amine is less basic than ammonia

C. methyl amine is more basic than ammonia

D. methyl amine form salt with alkalies

Answer: C

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234. The conjugate base of $(CH_3)_2NH_2^+$ is

A. $(CH_3)_2$

B. $(CH_3)_2N^+$

C. $(CH_3)_3N^+$

D. $(CH_3)_2N^-$

Answer: A

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235. Which of the following is conjugate base of $(CH_3)_3NH^+$

A. $(CH_3)_3N^+$

B. $(CH_3)_3N$

C. $(CH_3)_2NH$

D. $(CH_3)_2N^+H$

Answer: B

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236. Which of the following shares lone pair of electron less easily ?

A. methyl amine

B. benzyl amine

C. aniline

D. deithyl amine

Answer: C

View Text Solution

237. Which of the following is more baic in aqueous medium ?

A. 

B. 

C. 

D. 

Answer: D

View Text Solution

238. Among the following most baisc compound in aqueous medium is

A. 

B. 

C. 

D. 

Answer: A

View Text Solution

239. The correct order of basicity of following compound in aqueous medium is

(1) $(C_2H_5)_2NH$

(2) $C_2H_5 - NH_2$

(3) $(CH_3)_2NH$

(4) CH_3NH_2

A. $1 > 2 > 3 > 4$

B. $3 > 1 > 2 > 4$

C. $2 > 1 > 3 > 4$

D. $1 > 3 > 2 > 4$

Answer: D

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240. Product of the following reaction is -

$$\left[CH_3 - \underset{\underset{CH_3}{|}}{\overset{\overset{CH_3}{|}}{N}} - \underset{\underset{CH_3}{|}}{CH} - CH_2 - CH_3\right]^{+} OH^{-} \xrightarrow{\Delta}$$

A. $(CH_3)_2NH + CH_3 - OH + CH_3 - CH - CH_3$

B. $(CH_3)_3N + CH_3) - CH = CH_2 - CH_3$

C. $(CH_3)_3N + CH_2 = CH_2 - CH_2 + H_2O$

D. $(CH_3)_2NH + CH_3 - OH + CH_2 + CH - CH_2 - CH_3$

Answer: C

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241. Which of the following has highest pkb value in aqueous medium ?

A. $CCl_3 - CH_2 - NH_2$

B. $CCl_3 - CH_2 - CH_2 - NHr$

C. $CF_3 - CH_2 - NH_2$

D. $CF_3 - CH_2CH_2 - NH_2$

Answer: C

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242. Which of the following is insolube is dil HCl ?

A. Aniline

B. ethyl amine

C. triphenyl amine

D. dimethyl amine

Answer: C

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243. Which of the following is least basic in aqueous medium ?

A. 

B. 

C. 

D. 

Answer: B

View Text Solution

244. The least basic amine in aqueous medium is .

A. $(C_2H_5)_2NH$

B. $(C_2H_5)_3N$

C. $(CH_3)_2NH$

D. $(CH_3)_3N$

Answer: D

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245. Which of the following factor infulence the basicity aliphatic amines in aqueous medium ?

(1) Inductive effect of alkyl group

(2) Solvation effect

(3) Steric effect

A. 1,3

B. 1,2

C. 2,3

D. 1,2,3

Answer: D

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246. Which of the following is more baisc in aqueous medium ?

A. $CH_3 - NH_2$

B. $Ph - CH_2NH_2$

C. $(CH_3)_2NH$

D. 

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247. Identify the incorrect statement about the basic nature of amines

A. Aralkyl amines are less basic than ammonia

B. Aniline is more basic than ammonia

C. p-nitroaniline is more basic tha para amino benzoic acid

D. p-amino phenol is less than para methyl aniline

Answer: B

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248. In which of the following first is more basic than second

A. 

B. 

C. 

D. 

Answer: D

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249. Which of the following has highest kb value .

A. 

B. 

C. 

D. 

Answer: A

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250. Which of the following first is more basic than second ?

A. 

B. 

C. 

D. 

Answer: A

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251. Which of the following has highest pkb value .

A. 

B. 

C. 

D. 

Answer: A

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252. Which of the following amine is easilly protonated ?

A. 

B. 

C. 

D. 

Answer: C

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253. Which of the following amine has less tendency to accept proton form acid

A. 

B. 

C. 

D. 

Answer: B

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254. Which of the following has maximum steric effect ?

A. $(CH_3)_3N$

B. $(CH_3)_2NH$

C. CH_3NH_2

D. $C_2H_5NH_2$

Answer: A

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255. Consider the following amines

(1) n-butyl amine

(2) ethyl dimethyl amine

(3) diethyl dimethyl amine

the correct sequence of boiling point is

A. $1 > 3 > 2$

B. $1 > 2 > 3$

C. $2 > 3 > 1$

D. $2 > 1 > 3$

Answer: A

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256. Which of the following reacts with not answer Carbyl amine reaction ?

A. $CH_3CH_2NH_2$

B. $(CH_3)_2NH$

C. $(CH_3)_3N$

D. C_2H_5X

Answer: A

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257. Which of the following will not answer Carbyl amine reaction ?

A. Ethyl amine

B. methyl amine

C. Aniline

D. Dimethyl amine

Answer: D

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258. The correct order of basic strength of amines in aqueous reaction ?

(1) $C_2H_5NH_2$ (2) $(CH_3)_2NH$

(3) $(C_2H_5)_2NH$ (4)$(C_2H_5)_3N$

A. $3 > 2 > 1 > 4$

B. $2 > 3 > 4 > 1$

C. $3 > 4 > 2 > 1$

D. $1 > 3 > 2 > 4$

Answer: C

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259. A substance (A) is soluble in dil.HCl and produces obnoxides smell with alcholic potash and haloform . Which type of compound behave like this .

A. Alcohal

B. 1^0 amine

C. 2^0 amine

D. 3^0 amine

Answer: B

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260. Which of the following reaction is given by only primary amine ?

A. With HONO

B. With CHX_3 and alcholice potash

C. With acetyl chloride

D. With CH_3l

Answer: B

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261. Which of the following compound give nitrosomaine with HNO_2 ?

A. 1^0 amine

B. 2^0 amine

C. 3^0 amine

D. All of these

Answer: B

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262. The compound , which does not react with CH_3COCl is

A. RNH_2

B. R_2NH

C. R_3N

D. all of these

Answer: C

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263. Steric effect of methyl group reduces basic character of .

A. 3^0 amines

B. 1^0 amine

C. 2^0 amine

D. none of these

Answer: A

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264. A carbon compound which is soluble in conc. HCl solution , on treatment with f sodium nitrite give a nitrogen gas .

A. $C_2H_5NH_2$

B. CH_3NH_2

C. $CH_3CH_2CH_2NH_2$

D. all of these

Answer: D

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265. $R_2NH + HNO_2 \xrightarrow{\text{Cold}} R_2N - N = O + H_2O$

This reaction is ,

A. electrophilic addtion

B. electrophilic substitution

C. nucleophilic addition

D. nucleophilic substitution

Answer: B

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266. Which of the following species is formed when ethanamine is reacted with conc. HCl ?

A. $C_2H_5NH_2{}^+Cl^-$

B. $C_2H_5NH_3{}^+Cl^-$

C. $(C_2H_5)_2NH_2{}^+Cl^-$

D. $C_2H_5NH^+Cl^-$

Answer: B

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267. Amine behave as

A. Lewis acids

B. Lewis bases

C. aprotic acids

D. amphoteric compounds

Answer: B

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268. Which of the following alkyl halide is used as a methylating agent ?

A. CH_3l

B. C_2H_5Br

C. C_2H_5Cl

D. C_6H_5Cl

Answer: A

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269. Action of nitrous acid with ethylamine produces

A. ethane

B. ammonia

C. ethyl alcohol

D. nitroethane

Answer: C

View Text Solution

270. The correct order of basicity of the following compound in aqueous medium is

(1) NH_3 (2) $CH_2CH_2NH_2$

(3) $(CH_3)_2NH$ (4) $(C_2H_5)_3N$

A. $2 > 3 > 1 > 4$

B. $4 > 3 > 2 > 1$

C. $4 > 3 > 1 > 2$

D. $3 > 2 > 1 > 4$

Answer: B

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271. Secondary amine forms insolube nitrosoamine with

A. HNO_3

B. HNO_2

C. CH_3COCl

D. HCl

Answer: B

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272. Primary, secondary amine forms insoluble nitrosoamine with

A. HNO_3

B. HNO_2

C. dil.HCl

D. dil.H_2SO_4

Answer: B

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273. Consider the nitrogen atom is amines, which on of the following statement is correct ?

A. It is sp^3 - hybridised

B. It is sp^2 - hydridised

C. It is sp^3-hydridised

D. It is sp^2 - hydridised

Answer: A

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274. In tertiary amines the valency of nitrogen atom is

A. 3

B. 4

C. 5

D. 2

Answer: A

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275. The reagant which does not react with $(C_2H_5)_3N$ is /are .

A. CH_3COCl

B. $(CH_3CO)_2O$

C. NaOH

D. All of these

Answer: D

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276. An aliphatic primary amine reacts with HNO_2 in cold to form

A. a nitrile

B. an alchohol

C. a diazonium

D. a secondry amine

Answer: B

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277. Carbylamine reaction is given only by

A. primary amines

B. secondary amines

C. tertiary amines

D. quatenary amine

Answer: A

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278. Which of the following is more basic ?

A. Methenamine

B. Ethanamine

C. Propan - 2 amine

D. Phely methanamine

Answer: B

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279. Hinsberg reagent is

A. $Cu^{++}OH^{-}$

B. $C_6H_5SO_2Cl$

C. $C_6H_5NHNH_2$

D. $SOCl_2$

Answer: B

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280. Which one of the following pair can consume same amount of acetyl chloride ?

A. Acetyl ethyl amine and ethyl amine

B. Acetyl ethyl amine and diethyl amine

C. Ethyl amine and diethyl amine

D. Methyl amine and trimethyl amine

Answer: B

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281. The basic character of amines is due to

A. presence of nitrogen atom

B. lone pair of electrons on nitrogen atom

C. tetrahedral structure

D. high electronegativity of nitrogen

Answer: B

View Text Solution

282. All amines are basic in nature because

A. they possess one pair of electron on nitrogen

B. they give OH^- ions in aqueous medium

C. they form salt with acid

D. all of these

Answer: D

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283. Isocyanide test is used for the dectection of

A. primary alcohols

B. secondary alcohols

C. primary amine

D. secondary amine

Answer: C

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284. $C_2H_5NH_2$ and $CH_3NHC_2H_5$ canbe distinguished by

A. Hoffmann's reaction

B. Williamson's reactions

C. Wurtz reaction

D. Carbyl amines

Answer: D

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285. Ethyl amine reacts with excess of methyl iodine to give

A. ethyl methyl amine

B. ethyl dimethyl amine

C. ethyl trimethyl ammonium iodie

D. all of these

Answer: D

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286. How many molecules of CH_3l will react with CH_3NH_2 to from tetra methyl ammonium iodide?

A. 2

B. 3

C. 4

D. 5

Answer: B

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287. Following 1^0 amine has chircal centre $CH_3CHNH_2C_2H$

This on reactions with $NaNO_2$ + HCl froms

A. 1^0 alcohol with retention of configuartion

B. 2^0 alcohol with inverted configuartion

C. racemic mixture of 2^0 alcohol

D. racemic mixture of 1^0 alcohol

Answer: C

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288. Acetylation of amine is done in the presence of

A. CH_3COCl

B. CH_3CONH_2

C. CH_3COOCH_3

D. all of these

Answer: A

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289. Which of the following in more basic?

A. CH_3NH_2

B. $(CH_3)_2NH$

C. $(CH_3)_3N$

D. NH_3

Answer: B

View Text Solution

290. Which of the following is acetylatting agent ?

A. CH_3COCl

B. CH_3CONH_2

C. $(CH_3CO)_2O$

D. CH_3COONa

Answer: C

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291. Which of the following has lowest kb value ?

A. Benzenamine

B. N-methyl aniline

C. N,N-dimethyl aniline

D. N, N- dimethyl methamine

Answer: A

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292. Which of the following amine does not give alcohols with HNO_2?

A. C_2H_5NH

B. $CH_3CHNH_2CH_3$

C. CH_3NHCH_3

D. $(CH_3)_3CNH_2$

Answer: C

View Text Solution

293. The best methylating agent is

A. CH_3Cl

B. CH_3Br

C. CH_3F

D. CH_3I

Answer: D

View Text Solution

294. Triethyl amine reacts with HCl and $NaNO_2$ gives

A. triethyl nitroso amine

B. ethyl alcohol and diethyl nitroso amine

C. three molecules of ethyl alcohols

D. no product

Answer: D

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295. About amines some statements are given below, .

1. they possess tow lone pair of electrons on nitrogen atom.

2. these are monoacidic base

3 their basicity is one .

4. they can accept proton.

Among the above , true statements (s) is /are

A. only 2 and 3

B. only 3 and 4

C. only 2,3 and 4

D. all of these

Answer: C

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296. Primary amine forms

A. diacetyl derivative

B. triacetyl derivation

C. monoacetyl derivative

D. all fo these

Answer: A

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297. The unpleasant smelling isocyanide isocyanide are also

A. nitriles

B. cyanide

C. carbyl amine

D. ethers

Answer: C

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298. The conversion of 1^0 amine to 3^0 amine . The process involved may be called .

A. reduction

B. alkylation

C. oxidation

D. hydrogenation

Answer: B

View Text Solution

299. Which of the following can not be accetylated ?

A. CH_3NH_2

B. $(CH_3)_2NH$

C. $(CH_3)_3N$

D. $(CH_3)_3CNH_2$

Answer: C

View Text Solution

300. Trimethyl amine on acetylation gives

A. trimethyl acetyl amine

B. triacetyl methyl amine

C. diacetyl dimethyl amine

D. none of these

Answer: D

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301. Amines are polar compounds because of the

A. hydrogen bonding

B. difference in electronegativity between C,H and N

C. $-NH_2$ group

D. alkyl group

Answer: B

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302. Which of the following amines will not gives efferesecen with HNO_2

A. CH_3NH_2

B. $C_2H_5NH_2$

C. $(CH_3)_2NH$

D. $(CH_3)_2NH$

Answer: D

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303. Tetiary amine does not react with CH_3COCl because of

A. least basic

B. no hydrogen atom on nitrogen

C. three alkyl group

D. all of these

Answer: B

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304. Which is solube in $NaNO_2$ and dil HCl forming salt ?

A. $(CH_3)_3CNH_2$

B. $(CH_3)_2CHNH_2$

C. $(CH_3)_2NH$

D. $(CH_3)_3N$

Answer: D

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305. Which type of bond is formed when amines donate lone pair proton ?

A. Covlaent bond

B. Ionic bond

C. Co-ordinate bond

D. Electrovalent bond

Answer: C

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306. Primary amines on treatment with HNO_2 gibes

A. primary alcohols

B. secondary alchohal

C. tertiary alcohol

D. all of these

Answer: D

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307. The general fomula of quaternary ammouim compound is

A. $R - NH_2$

B. R_3N

C. R_4N^+, X^-

D. NH_4X

Answer: C

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308. N,N dimethyl acetamide is

A. $(CH_3)_2NCOCH_3$

B. $CH_3N(COCH_3)_2$

C. CH_3CONH_2

D. $CH_3N(COCH_3)_2$

Answer: A

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309. Which of the following has fishy smell?

A. CH_3NH_2

B. $C_2H_5NH_2$

C. $(CH_3)_2NH$

D. $CH_3(CH_2)_4NH_2$

Answer: B

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310. $(CH_3)_2CHNH_2$ is reacted with excess acetic anhydride , the compound fomred is

A. $(CH_3)_2CHNCOCH_3$

B. $(CH_3)_2CHN(COCH_3)_2$

C. $(CH_3)_2CHOH$

D. $(CH_3)_2CHN(COOCH_2)$

Answer: B

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311. Acetylation of amine is .

A. nucleophilic addition

B. nucleophilies substitution

C. electrophilic addition

D. electrophilic substituiton

Answer: B

View Text Solution

312. The bond (s) persent in quaternary ammonium salt is /are.

A. covalent

B. ionic

C. covalent , co-ordinate and ionic

D. covalent and co - ordinate

Answer: C

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313. Amines form salt with H_2SO_4 , the molar ratio of

A. $2:2$

B. $2:1$

C. $1:2$

D. $2:3$

Answer: B

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314. The maximum number of moles of an acetylating agent, consumed by a mole of each of 1^0, 2^0 and 3^0 amines are respectively.

A. 2, 3 and 4

B. 1,2 and 3

C. 2,1 and 0

D. 0,2 and 1

Answer: C

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315. The number of moles of nitrogen obtained by the complete reactions of one mole of $C_2H_5NH_2$ with nitrous acids is

A. 2

B. 3

C. 4

D. 1

Answer: D

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316. Three moles of CH_3l are made to react with one mole of ammonia . The product formed is

A. 1^0 amine

B. 2^0 amine

C. 3^0 amine

D. quaternary ammonium salt

Answer: C

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317. Which of the following reaction shows the basic nature of amines ?

A. $RNH_2 + HCl$

B. $RNH_2 + CH_3COCl$

C. $RNH_2 + HNO_2$

D. $RNH_2 + (CH_3CO)_2O$

Answer: A

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318. Select the correct statement about the following reaction.

$\left[(CH_3)_3NCH_2 - CH_3\right]^+ OH^- \rightarrow (CH_3)_3N + CH_2 = CH_2 + H_2O$

.

A. This is called Hofmann elimination reaction

B. OH^- ion function as base

C. Less substituted alkene is major product

D. All of these are correct

Answer: D

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319. Which of the folloiwng alkyl halides is used as a methylating agent ?

A. C_2H_5Cl

B. CH_3COCl

C. $(CH_3CO)_2O$

D. CH_3I

Answer: D

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320. Consider the following reaction

$$CH_3 - CONH_2 \xrightarrow{I} CH_3 - NH_2 \xrightarrow{II} CH_3NC$$

A. Reaction I is called Hofmann's amine reaction

B. Reaction II is called carbyl amine reaction

C. Reaction I and II are Hofmann reactions

D. Both 'a' and 'b' are correct statements.

Answer: D

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321. Anilinium hydrochloride is obtained from HCl and what

A. 

B. 

C. 

D. 

Answer: B

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322. Optical active amine of molecular formula $C_4H_{11}N$ on reaction with nitrous acid gives

A. butan -1-ol

B. 2-methyl propan -1-ol

C. 2-methyl propan -2-ol

D. butan -2-ol

Answer: D

View Text Solution

323. What will be the major product when propan -2- amine is treated with nitrous acids?

A. propan -1-ol

B. propan -2-ol

C. propene

D. cyclopropane

Answer: B

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324. The residue insolube in KOH obtained in the Hinsberg's test corresponds to

A. 1^0 - amine

B. 2^0 - amine

C. 3^0 -amine

D. cannot be predicated

Answer: B

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325. Tow compound A and B treated with nitrous acid

$$\underset{\underset{A}{|}}{\overset{NH_3}{CH_3 - CH - CH_3}}\ \underset{B}{CH_3 - CH_2 - NH_2}$$

The corresponding stable carbocation intermedicated are respectively .

A. 

B. 

C. 

D. 

Answer: C

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326. Product (B) of the following reaction is

A. 

B. 

C. 

D. 

Answer: B

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327. $C_6H_5 - NH_2 + CHCl_3 + KOH$ nitrogen containing compound $+3KCl + H_2O$. The nitrogen containing compound.

A. $C_6H_5 - NH_3 - Cl$

B. $C_6H_5 - CN$

C. $C_2H_5 - NC$

D. $C_2H_5NH_2$

Answer: C

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328. In order to distinguish between $C_2H_5 - NH_2$ and $C_6H_5 - NH_2$, which of the following reagent is useful

A. Hinsberg's reagent

B. HNO_2

C. $CHCl_3 + KOH$

D. NaOH

Answer: B

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329. Which of the following is more basic amine ?

A. $(CH_3)_2NH$

B. $(C_2H_5)_3N$

C. $(CH_3)_3N$

D. $C_2H_5NH_2$

Answer: B

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330. Methyl alcohol is perpared from heating of

A. $(CH_3)_4NH$

B. $(CH_3)_3N - C_2H_5OH$

C. $CH_3 - NH - CH_3$

D. $CH_3 - CH_2 - NH_2$

Answer: A

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331. Which of the following reacts with Hinsberg reagent to from a product soluble in KOH.

A. 1° amine

B. 2° - amine

C. 3° - amine

D. quaternary amine

Answer: A

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332. Thermal decompositionn of

$$\left[CH_3 - CH_2 - \overset{\overset{CH_3}{|}}{\underset{\underset{CH_3}{|}}{N}} - \overset{}{\underset{\underset{CH_3}{|}}{C}}\,(CH_3)_2\right]^{+} OH^{-}$$ gives

A. $CH_3 - CH = CH_2$

B. $CH_2 = CH_2$

C. $CH_3 - CH_3$

D. $CH_3 - CH_2 - CH_3$

Answer: B

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333. 1^0, 2^0, 3^0 - amines can be distinguished by using

$1) H_2O \quad (2) R - X$

(3) $HCl \quad (4)(CH_3CO)_2O$

A. $NaNO_2 + HCl$

B. CH_3COCl

C. $C_6H_5SO_2Cl$

D. all of these

Answer: D

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334. All three amine 1^0, 2^0, 3^0 are react with

A. 1,2

B. only 4

C. 1,2,4

D. 1,2,3

Answer: D

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335. N,N - dimethyl anilinium acetate obtained from

A. 

B. 

C. 

D. 

Answer: C

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336. N-phenyl ethanmide is obtained form CH_3COCOl and what

A. 

B. 

C. 

D. 

Answer: A

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337. Aniline react with $NaNO_2 + dil.\ HCl$ gives

A. phenol

B. chorobenzene

C. dichlorobenzene

D. benzene diazonium chloride

Answer: D

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338. N-N- dimethyl phenyl amine react with nitrous acids gives

A. 

B. 

C. 

D. 

Answer: C

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339. Which of the following compounds produces alkene on heating

A. $\left[CH_3-\underset{\underset{CH_3}{|}}{\overset{\overset{CH_3}{|}}{N}}-CH_3\right]^+ OH^-$

B. $(CH_3)_3C-X$

C. $\left[CH_3-\underset{\underset{CH_3}{|}}{\overset{\overset{CH_3}{|}}{N}}-CH_2-CH_3\right]^+ OH^-$

D. 

Answer: C

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340. $-NH_2$ group in aniline is

A. only o-directing

B. only p-directing

C. only m-driecting

D. o and p directing

Answer: D

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341. Strong activating efferct of $-NH_2$ group is reduced by using

A. CH_3COCl

B. CH_3Cl

C. CH_3Ona

D. $CH_3 - CHO$

Answer: A

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342. During electrophilic substitution reaction protection of $-NH_2$ group)

A. reduction

B. oxidation

C. alkylation

D. acylation

Answer: D

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343. Aniline is reacted with $Br_2/$ water gives (without proctecting $-NH_2/$ group

A. o-bromonailine

B. p-bromoanline

C. mixture of o- and p - bromo aniline

D. 2,4,6 - tribomoaniline

Answer: D

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344. When bromination of aniline is carried out by protecting $-NH_2$. The product is

A. o-bromonailine

B. 2,4,6- tribromoaniline

C. m-bromoaniline

D. p-bromoanilie

Answer: D

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345. Aniline on nitration gives

A. o-nitroaniline

B. p-nitronaniline

C. m-nitroaniline

D. mixture of o,m,p-nitronailine

Answer: D

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346. Aniline on nitroation unexpectedly gives

A. o-nitroaniline

B. p-nitronaniline

C. m-nitroaniline

D. o-dinitrobenzene

Answer: C

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347. Which of the folloiwng exist as a zwitter ion ?

A. sulphanilice acid

B. sulphonice acid

C. phthalic acid

D. Terephthalic acid

Answer: A

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348. Anilin is heated with conc H_2SO_4 gives

A. o-amino benzene sulphonic acid

B. p-amino benzene sulphonic acid

C. m-amino benzene sulphonic acid

D. isophthalic aicd

Answer: B

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349. Aniline donot reacts with

A. Br_2 + water

B. conc.H_2SO_4

C. conc. H_2SO_4

D. $CH_3 - Cl$ the presence of $AlCl_3$

Answer: D

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350. Which of the following reaction is not occur in aniline

A. bromination

B. sulphonation

C. nitration

D. Friedel - Crafft reaction

Answer: D

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351. What is the main reason for aniline which for aniline which does not give Feridel Craft reaction

A. Aniline is stabilized by resonance

B. NH_2 group of aniline react with $AlCl_3$ to give ring deactivating $\overset{\ominus}{N}H_2Cl$

C. lone pair of electron on nitrogen never conjugat with bezene ring

D. it is a Lewis base

Answer: B

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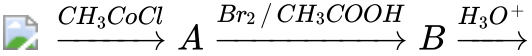
352. 

What is 'C' as a major prodcut ?

A. 

B. 

C. 

D. 

Answer: C

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353. Aniline react with nitrating mixture gives

A. 

B. 

C. 

D. 

Answer: C

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354. Bromination of aniline gives 2,4,6 - tribromoaniline where as nitration of aniline gives m -nitroaniline . In case of nitration m - derivatives is fored

A. In presence of strong acid NH_2 group protonated to form $\overset{\oplus}{N}H_2Cl$

B. m-nitroaniling is more stable than o- and p-nitroaniline

C. nitro group cannot enter at a and P position because of steric factor

D. The mechanism of bromide and nitration is different .

Answer: A

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355. Aniline is reacted with acetic anhyldirde gives

A. phenol

B. acetamide

C. acetanilide

D. benzene

Answer: C

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356. An organic formula $C_4H_{11}N$ does not react with $C_2H_5SO_2Cl$ but react with one mole of methyl iodinde to form salt. The structure of 'X` is

A. $CH_3-\overset{CH_3}{\underset{|}{N}}-CH_2-CH_3$

B. $CH_3-\underset{NH_2}{\underset{|}{CH}}-C_2H_5$

C. $CH_3-\underset{CH_3}{\overset{CH_3}{\underset{|}{\overset{|}{C}}}}-NH_2$

D. $C_2H_5-NH-C_2H_5$

Answer: A

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357. Which of medium change the directive influence of NH_2 in nitration reaction of aniline ?

A. Strongly baisc

B. Strongly acidic

C. Neutral

D. Weakly acidic

Answer: B

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358. What is 'D' in the following reaction ?

$$C_2H_5 - NO_2 \xrightarrow{LiAlH_4} A \xrightarrow{C_2H_5Br} B \xrightarrow{C_2H_5Br} C \xrightarrow{H_2SO_4} D$$

A. $\left[(C_2H_5)_3NH\right]_2^+ SO_4^{2}$

B. $\left[(C_2H_5)_3NH\right]_3^+ SO_4^{2}$

C. $(C_2H_5)_3NH^+ SO_4^{2-}$

D. $(C_2H_5)_3N^+ OH^-$

Answer: A

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359. Product 'B' in the following reaction Ethane nitrile $\xrightarrow{Na+C_2H_3OH} A \xrightarrow{NaNO_2+HCl} B$

A. C_2H_5Cl

B. $C_2H_5NH_2$

C. C_2H_5OH

D. $CH_3CH_2CH_2OH$

Answer: C

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360. Which of the following amine is most basic in nature ?

A. 2,4-dichloro aniline

B. 2,4-dimethyl aniline

C. 2,4-dinitro aniline

D. 2,4- dibromo aniline

Answer: B

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361. Which of the folloiwng amine can not be perpared by Gabriel phtalinamide synthesis ?

A. Methyl amine

B. n-butyl amine

C. Ethyl amine

D. Aniline

Answer: D

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362. The amine which reacts with nitrous acids to give yellow oily compound is :

A. Ethyl amine

B. Secondary butly amine

C. Dimethyl amine

D. Isopropyl amine

Answer: C

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363. Identify the end product (Y) in the following rection series .

$CH_3CN \xrightarrow{Na+C_2H_5OH} X \xrightarrow{HNO_2} Y$

A. CH_3OH

B. CH_3OCH_3

C. C_2H_5OH

D. $CH_3ON=O$

Answer: D

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364. An optical inactive amine (A) $C_4H_{11}N$ on treatment with HNO_2 give an alchol (B) . The alcohol (B) on heating with conc. H_2SO_4 at 453K 1- butene . Identify (A).

A. $CH_3CH_2(NH_2)CH_3$

B. $CH_3CH_2CH_2CH_2NH_2$

C. $CH_3NHCH_2CH_2CH_3$

D. $C_2H_5NHC_2H_5$

Answer: B

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365. The compound (A)$C_4H_{11}N$ which is optically active ,dissolved in conc. HCl and released nitrogen with HNO_2 What is the compound (A) ?

A. $CH_3CH_2CH_2CH_2NH_2$

B. $CH_3CHNH_2CH_2CH_3$

C. $C_2H_5NH_2H_5$

D. $CH_3NHCH(CH_3)_2$

Answer: B

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366. In the following reaction $RX + KCN \xrightarrow{\Delta}$ which of the following isomeric compound is formed

A. RCN

B. RNC

C. RNH_2

D. ROR

Answer: B

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367. In the reaction $C_2H_5NH_2 \xrightarrow{HCl+NaNO_2} A \xrightarrow{HCl} B \xrightarrow{KCN} C$ The final product C is

A. propane nitrile

B. ethane nitrile

C. propyl amine

D. formo nitrile

Answer: A

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368. The total number of electrons around the nitrogen atom in amines are,

A. 8

B. 7

C. 4

D. 3

Answer: A

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369. The end product of the reaction Ethyl amine

$$A \xrightarrow{HNO_2} \xrightarrow{PCl_5} B(\text{excess}NH_2) \rightarrow C$$

A. ethyl amide

B. ethyl amine

C. methyl amine

D. acetamide

Answer: B

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370. Identify the product Y in the series $CH_3CH_2CH_2CN \xrightarrow{NagH+H_2O} X \xrightarrow{HCl+NaNO_2} Y$

A. 1-propanol

B. 2-propanl

C. 1-butanol

D. 2-butanol

Answer: C

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371. Identify the product Y in the series $(CH_3)_2CH = NOH \xrightarrow{Na+C_2H_5OH} X \xrightarrow{HNO_2} Y$

A. 2-propanol

B. 2-propanamine

C. 2-butanol

D. 1-proptanl

Answer: A

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372. Compound X is the treated with NH_2OH and by reduction gives .

$(CH_3)_2CHCH_2\overset{\overset{NH_2}{|}}{C}HCH_2(CH_3)_3$ The compound X is .

A. $(CH_3)_2CHCH_2\overset{\overset{NOH}{||}}{C}CH_2(CH_3)_3$

B. $(CH_3)_2CHCH_2\overset{\overset{CN}{|}}{C}HCH_2C(CH_3)_3$

C. $(CH_3)_2CHCH_2\overset{\overset{CH}{|}}{C}HCH_2C(CH_3)_3$

D. $(CH_3)_2CHCH_2\overset{\overset{O}{||}}{C}CH_2C(CH_3)_3$

Answer: D

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373. The types(s) of the bond in RNC is / are

A. covalent

B. ionic

C. ionic and co-ordinate

D. covalent and co-ordinate

Answer: D

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374. The unknow compound is taken in vesse soluble In dilute HCl and small amount of $NaNO_2$ is added , nitrogen gas is evolved nitrogen

gas in evolved . The unknow compound is

A. 1° amine

B. alchols

C. 2° amines

D. carboxylic acids

Answer: A

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375. Which of the following is not capable of forming hydrogen bond ?

A. CH_3NH_2

B. $(CH_3)_3CNH_2$

C. CH_3NHCH_3

D. $(CH_3)_3N$

Answer: D

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376. The amine which form co-ordinate bond with Lewis acid is /are .

A. RNH_2

B. R_2NH

C. R_3N

D. all of these

Answer: D

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377. Quaternay ammonium halide is heated with moist silver oxide gives

A. quaternary ammonium hydroxide

B. ammoniun hydroxide

C. alcholes

D. alkene

Answer: A

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378. Quaternay ammonium hydroxide containing all group are methyl, on heated gives .

A. trimethyl amine

B. methanol

C. both 'a' and 'b'

D. ethanol

Answer: C

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379. When formaldoxime is treated with Na in C_2H_5OH it will give ?

A. Formaldehyde

B. Methyl amine

C. Methanol

D. Formic acid

Answer: B

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380. The odour of amine is

A. odourless

B. pungent

C. fishy

D. garlic like

Answer: C

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381. IUPAC name of ethyl amine is

A. ethyl methanamine

B. methyl ethanamine

C. propanamine

D. 2-amino propane

Answer: B

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382. When ethyl amine is treated with acetyl chloride forms ?

A. C_2H_5NH

B. C_2H_5CHO

C. CH_3NHCH_3

D. $C_2H_5NHCOCH_3$

Answer: D

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383. Which of the following cannot be acetylated ?

A. CH_3NH_2

B. $(CH_3)_2NH$

C. $(CH_3)_3N$

D. $C_2H_5NH_2$

Answer: C

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384. Isopropyl amine on acetylation gives

A. $(CH_3)_2CH - NCOHCH_3$

B. $(CH_3)_2CH - NHCOCH_3$

C. $(CH_3)_2CHN(COCH_3)_2$

D. $(CH_3)_2CHN(OCH_3)_2$

Answer: C

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385. In acetylation of amines one or more hydrogen atoms are removed form

A. carbon atom only

B. nitrogen atom only

C. both carbon and nitrogen atoms

D. form acetyl cholride only

Answer: B

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386. Final product of methylation of ethyl amine is

A. tri ethyl methyl amine

B. ethyl tri methyl amine

C. tri ethyl methyl ammonium halide

D. ethyl tri methyl ammonium halide

Answer: D

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387. n-propyl amine reacts with HNO_2 gives

A. iso - propyl alcohol

B. n -propyl alcohol

C. n - propyl nitrosoamine

D. none of these

Answer: B

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388. IUPAC name of isoproyl amine is

A. 2-aminopropane

B. 2-propanamine

C. 2,2-dimethylethanamine

D. dimethanamine

Answer: B

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389. Which of the following compound reacts with nitrous acid to form alcohol ?

A. R_2NH

B. RNH_2

C. $R-CONH_2$

D. R_3N

Answer: B

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390. Acetaldoxime on reduction with Na/C_2H_5OH gives

A. 2-propanol

B. ethylamine

C. acetaldehyde

D. ethanol

Answer: B

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391. Acetonitrile on reduction gives

A. propanamine

B. methanamine

C. ethanamine

D. acetic acid

Answer: C

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392. The functional group present in secondary amine is

A. amino group

B. imino group

C. nitrile group

D. oxime group

Answer: B

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393. Final product of methylation of ethyl amine and ethyl methyl amine is

A. ethyl trimethyl amine

B. triethyl methyl amine

C. triethyl methyl ammoniun halide

D. ethyl trimethyl ammonium halide

Answer: D

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394. What is the product of reaction between diethyl amine and nitrous acid ?

A. Diethyl amine nitrite

B. Diethyl nitroso amine

C. Diethyl alcohol

D. Diethyl nitrate

Answer: B

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395. IUPAC name of $C_2H_5CH(CH_3)NH_2$

A. ethyl methyl amine

B. methyl ethyl amine

C. 2-butanamine

D. 1-butanamine

Answer: C

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396. Which of the following is most basic amine ?

A. $C_2H_5NH_2$

B. $(C_2H_5)_3N$

C. $(C_2H_5)_2NH$

D. NH_3

Answer: C

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397. Which of the following forms $C_2H_5NH_2$ on reduction ?

A. C_2H_5CN

B. CH_3CHO

C. CH_3CN

D. CH_3NC

Answer: C

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398. Aliphatic diazonium choldride an decomposition gives

A. 1^0 - amine

B. alchols

C. aldehydes

D. alkanes

Answer: B

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399. Diazotization of aniline gives

A. nitrobenzene

B. dinitrobenzene

C. benzaldehyde

D. benzene diazonium chloride

Answer: D

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400. Which of the following is incorrect about benzene diazonium chloride ?

A. These are colourless crystalline solid

B. These are readily soluble in water

C. It's aquenous solution conduct electrcity

D. These are insolute in water

Answer: D

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401. Which of the following in unstable

A. $C_6H_5 - N_2Br$

B. $C_6H_5 - N_2I$

C. $CH_3 - N_2Cl$

D. $C_6H_5 - N_2Cl$

Answer: C

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402. Benzene diazonium choride on acid hydrolysis gives

A. benzene

B. phenol

C. benzoic acid

D. benzaldehyde

Answer: B

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403. Replacement $-N_2^+Cl^-$ from benzene diazonium chloride by hydrogen atom can be done by using

A. H_3PO_2

B. C_2H_5-OH

C. CH_3-CHO

D. both a and b

Answer: D

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404. Replacement by $-N_2^+Cl^-$ from benzene diazonium choride by can be done by using

A. HI

B. NaOI

C. PI_3

D. Kl

Answer: D

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405. Which of the following is Sandmeyr's reaction.

A. 

B. 

C. 

D. 

Answer: C

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406. Which of the following is Gattermann reaction ?

A. 

B. 

C. 

D. 

Answer: B

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407. Sandmeyer's reaction of benzene diazonium choldride is used in the preparation of

A. chlorodenzene

B. benzene

C. Phenol

D. iodobenzen

Answer: A

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408. In Balz-Schmeiman's reactionn reagent used is

A. H_3BO_2

B. BF

C. HBF

D. HF

Answer: C

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409. Balz-Schiemann's reaction is used to convert

A. Aromatic aldehyde to aldol

B. benzene to chlorobenzeme

C. chorobene diazonium to phenol

D. benzene diazonium chloride to fluorobenzene

Answer: D

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410. Gattermann reaction convert benzene diazonium chloride to

(1) Chlordobenezene (2) bromobenzene

(3) toluene (4) nitrobenzene

A. 1,4

B. 2,3

C. 2,3,4

D. 1,2

Answer: D

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411. Benzene dizonium chloride convert phenyl cyanide by using

A. H-NC

B. AgCN

C. CuCN

D. $CH_3 - CH$

Answer: C

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412. Which of the following undergoes coupling reaction with benzene diaxonium chloride ?

A. 

B. 

C. 

D. 

Answer: A

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413. Product of the following reaction is

$C_6H_5 - N_2Cl + C_6H_5 - NH_2 \rightarrow$

A. 

B. 

C. 

D. 

Answer: C

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414. Orange colour compound is obtained when benzene diazonium chloride and what .

A. 

B. 

C. 

D. 

Answer: B

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415. Gattermann reaction is modified form of

A. diazotizations reaction

B. Hofmann's bromide reaction

C. Sandmeyers reaction

D. Ullaman reaction

Answer: C

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416. $-N_2^+X^-$ is replaced by CN using

A. HCN

B. CuCN

C. CH_3CN

D. both a and b

Answer: D

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417. $C_6H_5-N_2^+X^-$ is converted into benzene by using

A. H_3PO_2

B. H_3PO_3

C. H_3PO_4

D. HPO_3

Answer: A

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418. Azo coupling reaction reaction is not possible withh

A. C_6H_5OH

B. $C_6H_5HN_2$

C. $C_6H_5NHCH_3$

D. $C_6H_5NO_2$

Answer: D

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