



CHEMISTRY

BOOKS - CHETANA PUBLICATION

Amines

Example

1. What are amines? How are they classified?

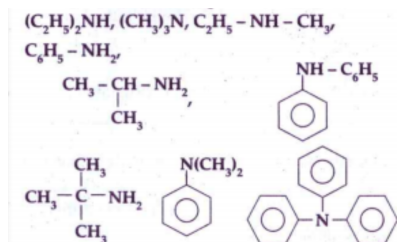


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2. Write some examples of nitrogen containing organic compounds.

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3. Classify the following amines as simple/ mixed, 1° , 2° , 3° and aliphatic or aromatic.

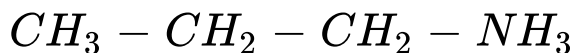


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4. Write the IUPAC names of the following structural formula: $CH_3 - CH_2 - NH_2$

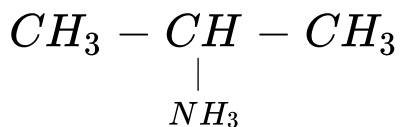
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5. Give common and IUPAC name of following compounds:



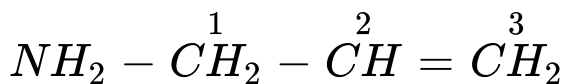
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6. Give common and IUPAC name of following compounds:



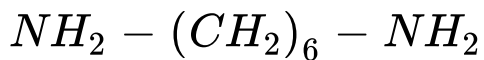
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7. Give common and IUPAC name of following compounds:



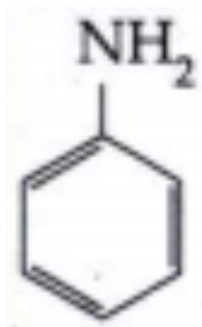
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8. Give common and IUPAC name of following compounds:



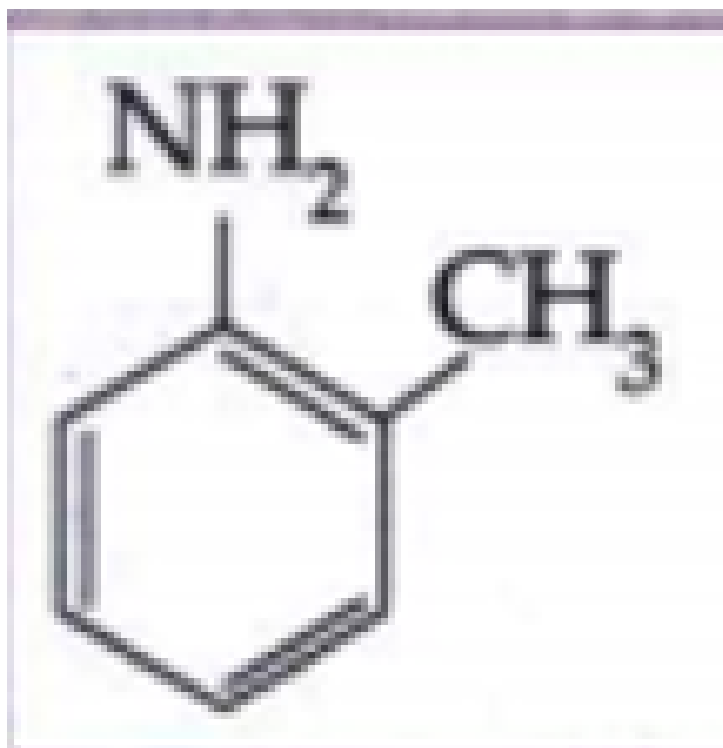
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9. Give common and IUPAC name of following compounds:



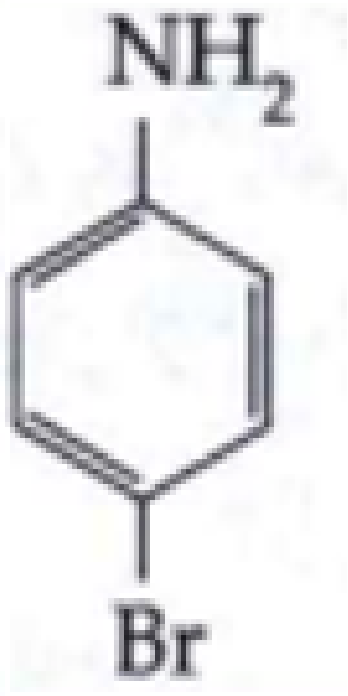
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10. Give common and IUPAC name of following compounds:



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11. Give common and IUPAC name of following compounds:



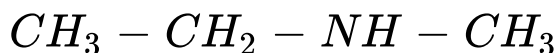
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12. Give common and IUPAC name of following compounds:



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13. Give common and IUPAC name of following compounds:



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14. Give common and IUPAC name of following compounds:



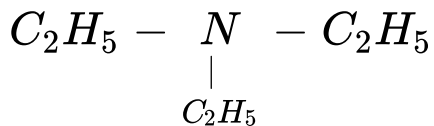
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15. Give common and IUPAC name of following compounds:



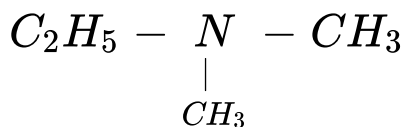
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16. Give common and IUPAC name of following compounds:



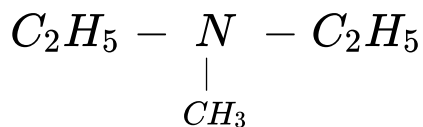
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17. Give common and IUPAC name of following compounds:



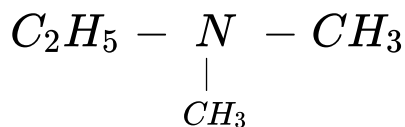
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18. Give common and IUPAC name of following compounds:



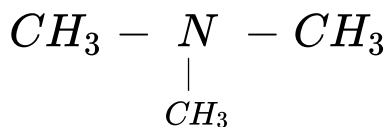
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19. Give common and IUPAC name of following compounds:



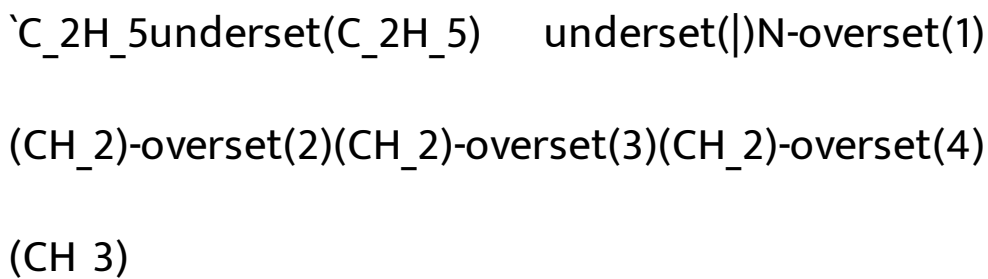
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20. Give common and IUPAC name of following compounds:



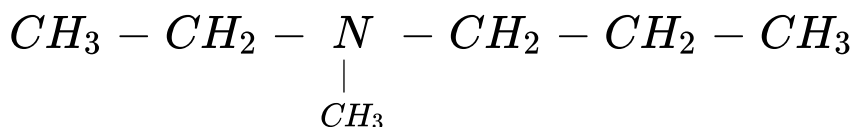
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21. Give common and IUPAC name of following compounds:



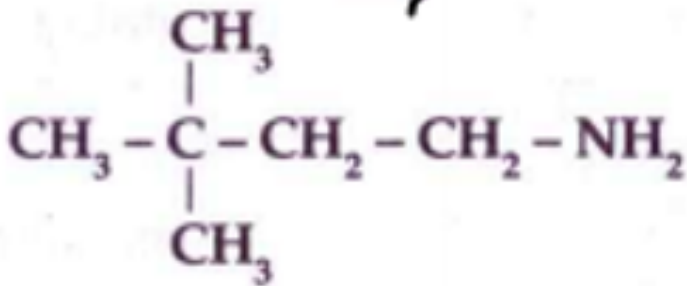
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22. Write the IUPAC names of the following amines:



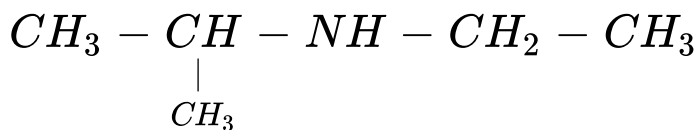
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23. Write the IUPAC names of the following amines:



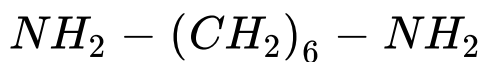
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24. Write the IUPAC names of the following amines:



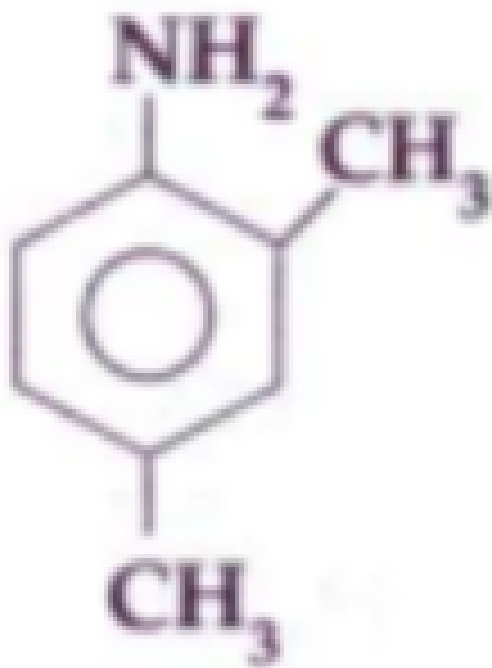
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25. Give common and IUPAC name of following compounds:



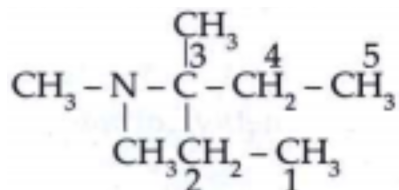
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26. Write the IUPAC names of the following amines:



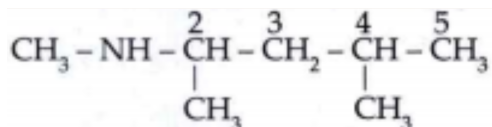
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27. Give the IUPAC names of the following amines



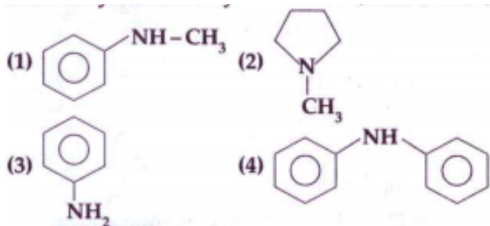
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28. Give the IUPAC names of the following amines



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29. Classify the following amines as primary-secondary and tertiary.



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30. Classify the following amines as 1° , 2° and 3° and write the IUPAC name.

n-butylamine

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31. Classify the following amines as 1° , 2° and 3° and write the IUPAC name.

sec-pentylamine



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32. Classify the following amines as 1° , 2° and 3° and write the IUPAC name.

ethylisopropylamine



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33. Classify the following amines as 1° , 2° and 3° and write the IUPAC name.

tert-butylamine

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34. Classify the following amines as 1° , 2° and 3° and write the IUPAC name.

N-methyl-sec-butylamine

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35. Classify the following amines as 1° , 2° and 3° and write the IUPAC name.

N,N-dimethylethylamine



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36. Classify the following amines as 1° , 2° and 3° and write the IUPAC name.

p-bromoaniline



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37. Give the structure and IUPAC names of following amines:

N,N-Dimethyl-tert-butylamine



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38. Give the structure and IUPAC names of following amines:

Di-isopropylamine



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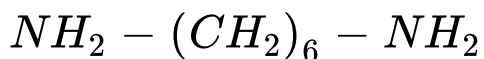
39. Give the structure and IUPAC names of following amines:

Di-tert butylamine.



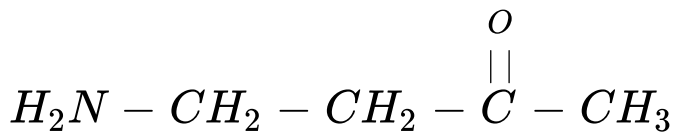
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40. Give common and IUPAC name of following compounds:



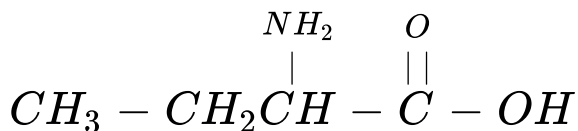
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41. Write the IUPAC names of following amines.



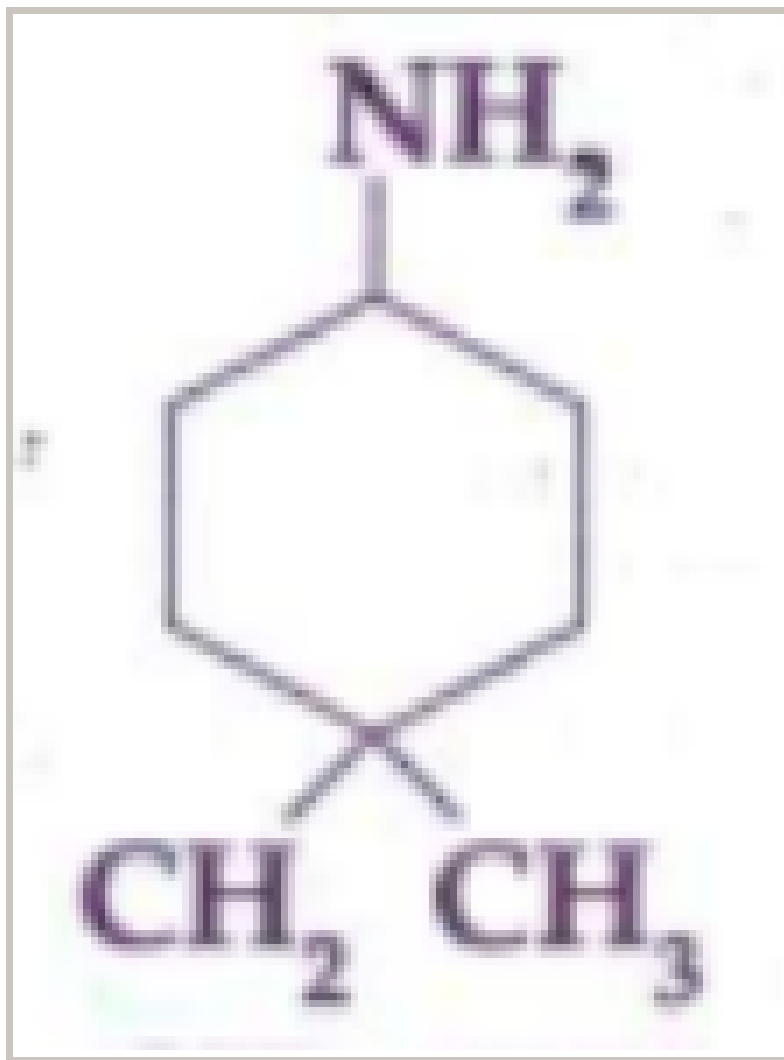
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42. Write the IUPAC names of following amines.



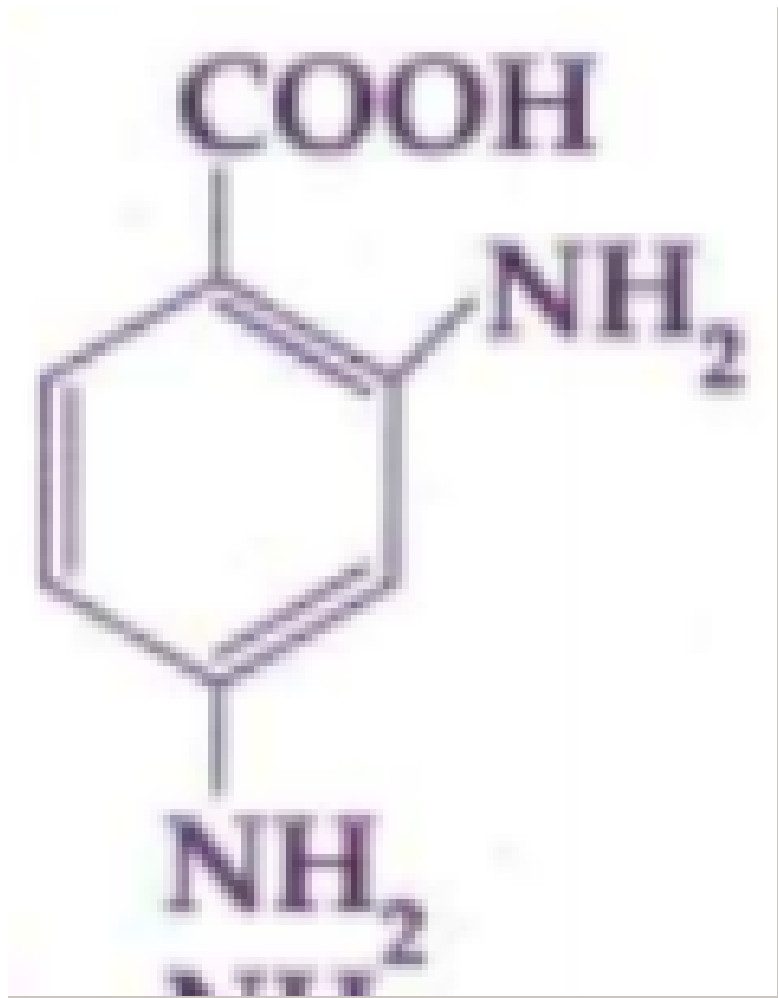
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43. Write the IUPAC names of following amines.



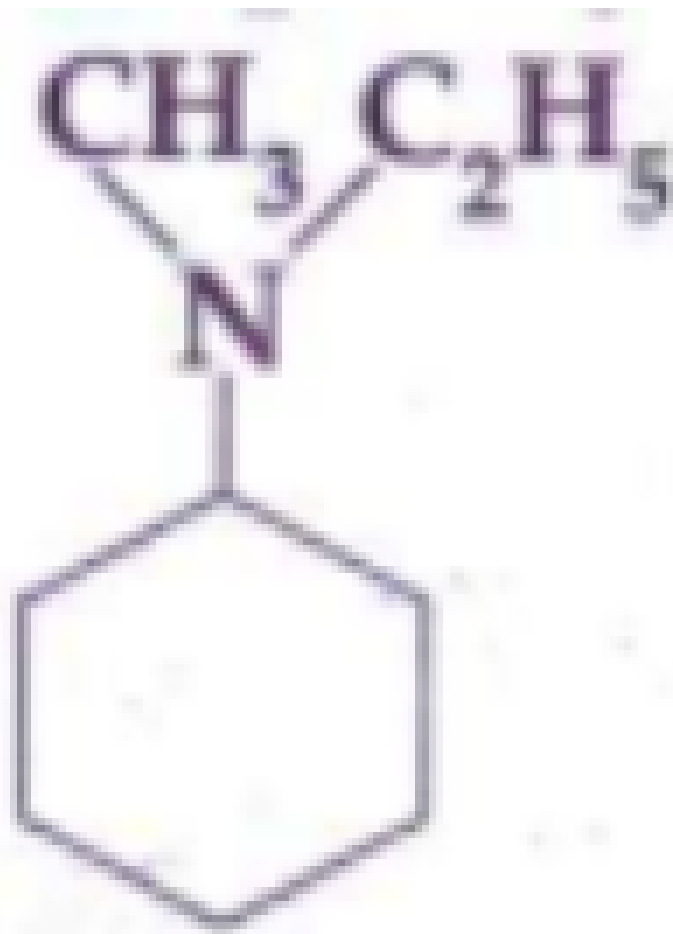
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44. Write the IUPAC names of following amines.



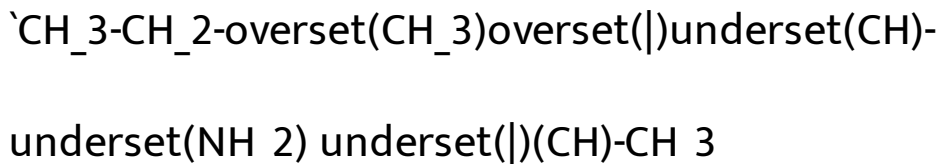
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45. Write the IUPAC names of following amines.



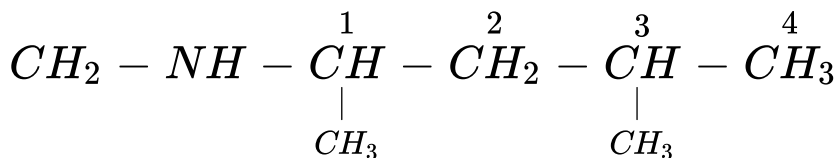
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46. Give the IUPAC names of following amines.



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47. Give the IUPAC names of following amines.



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48. Write the structures and classify the following amines as primary, secondary, tertiary amines.

5-Bromo-2-ethylaniline



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49. Write the structures and classify the following amines as primary, secondary, tertiary amines.

N - Ethyl - 4 - iso α yl - *N* - methylanil $\in e$



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50. Write the structures and classify the following amines as primary, secondary, tertiary amines.

4-chloro-N ethyl-3-nitroaniline



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51. Write the structures and classify the following amines as primary, secondary, tertiary amines.

N-Ethyl-N-methyl cyclopentanamine



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52. Write the structure of all the eight isomeric amines having molecules formula $C_5H_{13}N$. Classify them as primary, secondary and tertiary amines. Further classify them as simple and mixed amines. Write their common and IUPAC names.



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53. Write the IUPAC name of a tertiary amine in which one methyl, one ethyl and one n-propyl group is attached to nitrogen.



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54. How will you prepare ethylamine from Iodoethane?



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55. Write a note on ammonolysis of alkylhalides,
OR Write a note on alkylation of ammonia.



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56. State the limitations of ammonolysis alkyl halides.

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57. Write reaction of alc. NH_3 with C_6H_5I .

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58. Write chemical equation for ammonolysis of Kenzie's chloride followed by the reaction with two moles of $CH_3 - I$.

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59. Why ammonolysis of alkyl halide not a suitable method for the preparation of primary amine?

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60. Write a reaction of tert butyl bromide with alc NH_3 .

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61. Write reaction to prepare ethanamine from Acetonitrile

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62. Write reaction to prepare ethanamine from Nitroethane

 [Watch Video Solution](#)

63. Write a note on Mendius reaction.

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64. How will you prepare 1-Butanol from butane nitrile



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65. How will you prepare propan-1-amines from 1-nitropropane



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66. How will you prepare propan-1-amines from phthalimide

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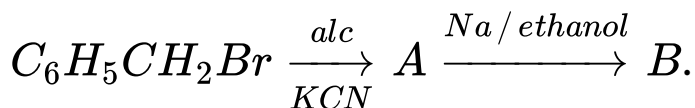
67. How will you prepare propan-1-amines from propanamide

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68. How will you prepare propan-1-amines from butanamide?

 [Watch Video Solution](#)

69. Identify A and B in the following reactions.



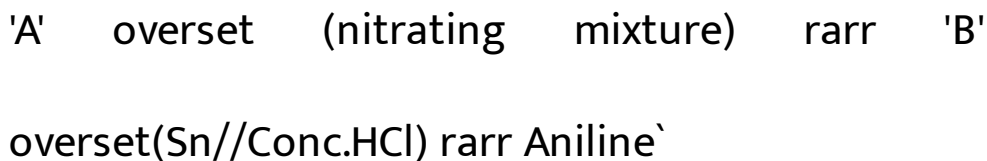
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70. Give a plausible explanation for each of the following statements:

Gabriel phthalimide synthesis is preferred for the preparation of aliphatic primary amines.

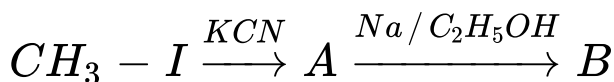
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71. Identify the components 'A' and 'B' in the following reactions.



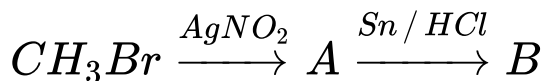
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72. Identify 'A' and 'B' in the following conversions.



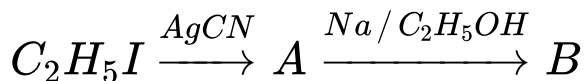
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73. Identify 'A' and 'B' in the following conversions.



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74. Identify 'A' and 'B' in the following conversions.



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75. Explain Hoffmann bromamide reaction.



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76. Which amide does produce ethanamine by Hofmann bromide degradation reaction? OR

Write reaction to prepare ethanamine from propanamide.



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77. Write the chemical equation for the following conversion.

Methyl amine to ethylamine.



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78. Write the chemical equation for the following conversion.

Benzamide to aniline.



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79. Write the chemical equation for the following conversion.

1,4-Dichlorobutane to hexane-1,6-diamine.



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80. Write the chemical equation for the following conversion.

Benzamide to benzylamine.



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81. Give the physical properties of amines.



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82. Arrange the following amines in an increasing order of boiling points.

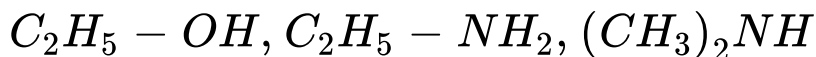
n-propylamine, ethylmethylamine, trimethylamine.



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83. Arrange the following:

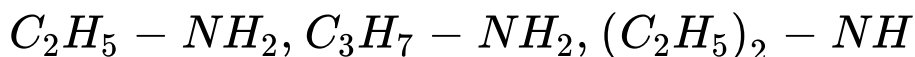
In decreasing order of the b.p.



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84. Arrange the following:

In increasing order of solubility in water





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85. Write a note on Basicity of amines. OR

Explain the basic nature of amines.



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86. Arrange the following amines in the increasing order of their pK_a values.

Aniline, Cyclohexylamine, 4-Nitroaniline`.



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87. Write the order of basicity of aliphatic Alkylamine in gaseous phase.

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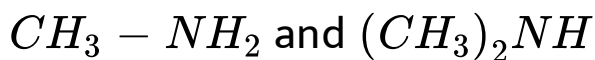
88. Why are primary aliphatic amines stronger bases than ammonia?

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89. What is meant by +I effect?

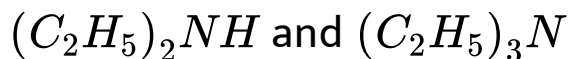
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90. Refer to pK_a values and answer which compound from the following pairs is stronger base?



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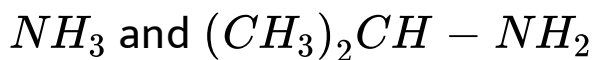
91. Refer to pK_a values and answer which compound from the following pairs is stronger base?



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92. Refer to pK_a values and answer which compound from the following pairs is stronger base?



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93. Explain order of basicity of amines.

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94. Give resonating structures of aniline and explain its basicity.

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95. What is action of nitrous acid on 1° , 2° and 3° amines? OR

What will be the action of the mixture of sodium nitrite and dilute Hydrochloric acid on (i) ethyl amine (ii)aniline (iii)Methylamine (Oct. 14) OR

Write the reaction of (i) aromatic and (ii) aliphatic amine with nitrous acid.

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96. Arrange the following amines in the decreasing order of their basic nature.

Aniline, propan-1-amine and N-methyl-ethanamine



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97. Arrange the following amines in the decreasing order of their basic nature.

Benzene-1,4-Diamine, ammonia and 4-Aminobenzoic acid.



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98. Arrange the following amines in the increasing order of their $-pK_b$ values.

Aniline, N-methylamine and cyclohexylamine.



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99. Arrange the following amines in the increasing order of their $-pK_b$ values.

Aniline, N-methylamine and cyclohexylamine.



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100. Arrange the following amines in the increasing order of their $-pK_b$ values.

Phenylmethylamine, 2-Amino toluene, and 2-fluoroaniline

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101. Arrange the following amines in the increasing order of their $-pK_b$ values.

Aniline, 4-Methoxyaniline and 4-Nitroaniline.

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102. Arrange the following compounds in the decreasing order of their basic nature in gaseous phase.

Ammonia, N methylethanamine, Propan-1-amine and N, N dimethylmethanamine.



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103. Arrange the following compounds in the decreasing order of their solubility in water.

Ethylamine, diethylamine and triethylamine.



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104. Arrange the following compounds in the decreasing order of their solubility in water.

Ethylamine, n-propylamine and n-butylamine



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105. Arrange the following compounds in the decreasing order of their solubility in water.

n-Butane, n-butyl alcohol and n-butyl amine.



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106. Arrange the following compounds in the decreasing order of their boiling points.

Ethane, ethylamine and ethyl alcohol.



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107. Arrange the following compounds in the decreasing order of their boiling points.

Ethylamine, m-propylamine and n-butylamine.



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108. Arrange the following compounds in the decreasing order of their boiling points.

n-propylamine, ethyl methylamine and trimethylamine.

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109. Arrange the following compounds in the decreasing order of their boiling points.

Ethylalcohol, dimethylamine and ethyl amine

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110. Are the pK_b values of aniline, N-methylaniline and N,N-dimethyl aniline larger or smaller than those of NH_3 and CH_3NH_2



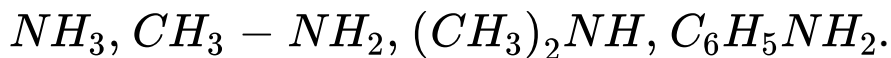
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111. Which one of the two, aniline or CH_3NH_2 is a stronger base?



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112. Arrange the following amines in the decreasing order of their basic strength.



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113. Give distinguishing test between primary, secondary and tertiary amines with nitrous acid.

OR

What is the action of mixture of $NaNO_2$ and dil HCl on (a) Ethylamine (b) Aniline (c) Diethylamine.



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114. Write the structure of all the isomeric amines represented by formula $C_5H_{13}N$ that evolve nitrogen gas on treatment with sodium nitrite and dilute hydrochloride acid.



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115. Give distinguishing test between primary, secondary and tertiary amines with nitrous acid.

OR

What is the action of mixture of $NaNO_2$ and dil HCl on (a) Ethylamine (b) Aniline (c) Diethylamine.



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116. How will you convert diethylamine into N,N-diethyl acetamide?



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117. How will you convert diethylamine into N-nitrosodiethylamine?



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118. Write short note on Hofmann's exhaustive alkylation.



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119. Predict the product of exhaustive methylation of following compounds:

Methylamine.



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120. Predict the product of exhaustive methylation of following compounds:

Methylamine.



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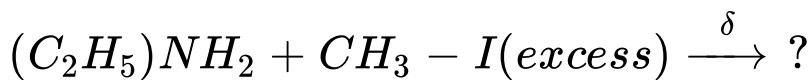
121. Predict the product of exhaustive methylation of following compounds:

Dimethylamine.



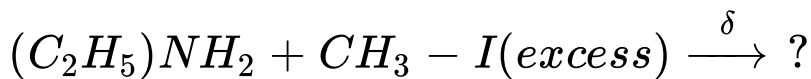
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122. Predict the product.



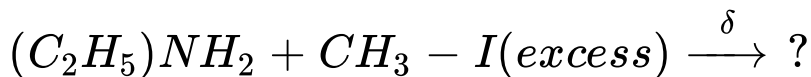
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123. Predict the product.



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124. Predict the product.



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125. Define Quaternary ammonium salt. How will you prepare it?

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126. Write a note on Hoffmann elimination.

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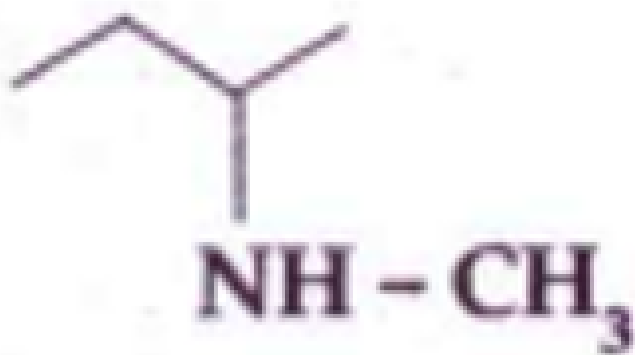
127. Write the bond line formula of the alkene which is obtained as major product contain from the following amines, on heating with excess of methyl iodide followed by strong heating with silver oxide.



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128. Write the bond line formula of the alkene which is obtained as major product contain from

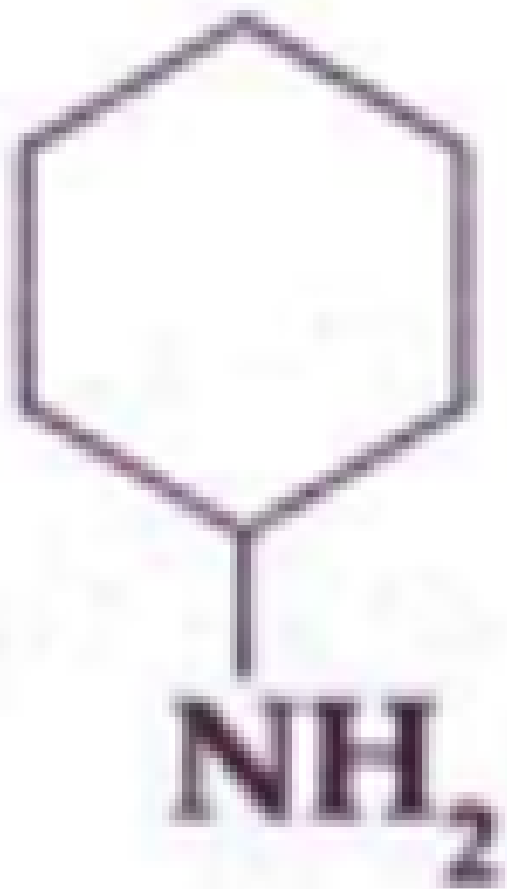
the following amines, on heating with excess of methyl iodide followed by strong heating with silver oxide.



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129. Write the bond line formula of the alkene which is obtained as major product contain from

the following amines, on heating with excess of methyl iodide followed by strong heating with silver oxide.



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130. Explain Hoffmann's carbylamines test/Isocyanides test. OR

Write short notes on the following:

(i) Carbylamines reaction.



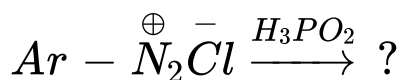
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131. Write the carbylamine reaction by using aniline as a starting material.



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132. Complete the following reactions:



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133. What is acyl group?



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134. How are phenols acylated?



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135. Write a note on electrophilic substitution reaction of amines OR

convert (1) Aniline to p-bromo aniline.

(2) Aniline to p-nitroaniline

(3) Aniline to sulphanilic acid OR

What is the action of following agents on aniline?

1 Conc H_2SO_4

(2) Aqueous bromine

(3) Acetic anhydride

(4) Chloroform and alcoholic KOH.



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136. Explain aniline does not undergo Friedel Crafts reaction using aluminium chloride.

 [Watch Video Solution](#)

137. Write a note diazotisation.

 [Watch Video Solution](#)

138. Give the physical properties of Benzene diazonium salt.

 [Watch Video Solution](#)

139. How will you prepare benzene diazonium chloride from aniline? OR

Write a note on diazotiasation reaction.



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140. How will you prepare benzene diazonium chloride from aniline? OR

Write a note on diazotiasation reaction.



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141. What is meant by a coupling reaction? Explain with suitable examples. Write a note on coupling reaction.



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142. State chemical reactions of diazonium salts.



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143. Explain resonance stabilization of arene diazonium ion.

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144. Write a note on Sandmeyer's reaction. OR

How is aryl chloride or aryl bromide prepared from diazonium salt?

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145. What is meant by a coupling reaction? Explain

with suitable examples. OR

Write a note on coupling reaction.

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146. Give reaction of Benzene diazonium chloride with KI.



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147. Write a note on Balz- Schiemann reaction.



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148. p-(dimethylamino)azobenzene is a yellow dye which was formerly used as a colouring agent in

margarine. Write the structures of the reactants used in the preparation of this dye.

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149. How will you convert?

3-methylaniline into 3-Nitrotoluene ?

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150. Convert Benzene diazonium chloride to benzene.

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151. Convert benzene diazonium chloride to Phenol



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152. Convert benzene diazonium chloride to Nirtobenzene.



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153. Give the uses of Benzene diazonium salt.



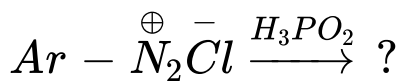
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154. Preparation and reaction of Diazonium salts.



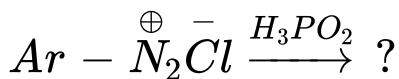
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155. Complete the following reactions:



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156. Complete the following reactions:



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157. Give distinguishable reaction between 1° , 2° and 3° amine by Hinsberg's test. OR

What is the action of Benzene Sulphonyl Chloride on primary, secondary and tertiary amines.



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158. Write reaction of p-toluenesulfonyl chloride with diethylamine.

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159. Do tertiary amines have 'H' bonded to 'N'?

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160. Why do tertiary amines not react with benzene sulphonyl chloride?

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161. Write a reaction of aniline with bromine water.



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162. Write reaction to convert aniline into p-Bromoaniline.



Watch Video Solution

163. Write a reaction of aniline with nitric acid.



Watch Video Solution

164. Write reactions to bring about the following conversions:

Aniline into sulphonilic acid.



Watch Video Solution

165. Write reactions to bring about the following conversions:

Aniline into sulphonilic acid.



Watch Video Solution

166. What is Zwitter ion?



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167. Can aniline react with a Lewis acid?



Watch Video Solution

168. Explain aniline does not undergo Friedel Crafts reaction using aluminium chloride.



Watch Video Solution

169. How will you convert aniline into
benzyl alcohol



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170. How will you convert aniline into
4-Bromoaniline



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171. How will you convert aniline into
1,3,5-Tribromobenzene





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172. How will you convert aniline into

2,4,6-Tribromofluoro benzene



[Watch Video Solution](#)

173. How will you convert aniline into

4-Nitroaniline (VI) Sulphanilic acid?



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174. How will you bring about following conversion?

N-Methyl aniline into N-Methyl benzanilide.



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175. Write the chemical equation for the following conversion.

1,4-Dichlorobutane to hexane-1,6-diamine.



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176. How will you bring about following conversion?

Pentanenitrile into Butan-1-amine.



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177. How will you bring about following conversion?

Nitro ethane into N-ethyl ethanamine.



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178. How will you bring about following conversion?

2-Bromo 4-aminotoluene into 2-Bromobenzoic acid.



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179. How will you bring about following conversion?

Benzene into m-Bromophenol



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180. How will you bring about following conversion?

Chlorobenzene into 4-Chloroaniline.



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181. How will you bring about following conversion?

Benzamide into toluene.



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182. How will you convert?

Ethanoic acid into propanoic acid?



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183. How will you convert?

Propanoic acid into ethanoic acid?



Watch Video Solution

184. How will you convert?

Ethanol into propanoic acid?

 [Watch Video Solution](#)

185. How will you convert?

Propanoic acid into ethanol?

 [Watch Video Solution](#)

186. How will you convert?

Ethanamine into propan-1-amine?

 [Watch Video Solution](#)

187. How will you convert?

Propan-1-amine into Ethanamine?



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188. How will you convert?

Propanoic acid into Ethanamine?



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189. How will you convert?

Ethanamine into Propanoic acid?

 [Watch Video Solution](#)

190. How will you convert?

Benzene to aniline?

 [Watch Video Solution](#)

191. How will you convert?

Aniline to Benzene?

 [Watch Video Solution](#)

192. How will you convert?

Aniline into Benzoic acid?



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193. How will you convert?

Benzoic acid into aniline?



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194. How will you convert?

Aniline into benzamide?

 [Watch Video Solution](#)

195. How will you convert?

Benzamide into aniline?

 [Watch Video Solution](#)

196. How will you convert?

3-methylaniline into 3-Nitrotoluene ?

 [Watch Video Solution](#)

197. Convert 3Methyl aniline into 3-nitro toluene



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198. Give plausible explanation for each of the following statements:

Ethylamine is soluble in water whereas aniline is not.



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199. Give plausible explanation for each of the following statements:

Butan-1-amine has higher boiling point than N-ethylethamine.



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200. Give plausible explanation for each of the following statements:

Butan-1-amine has higher boiling point than N-ethylethamine.



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201. Give plausible explanation for each of the following statements:

Aniline is less basic than ethylamine.



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202. Give plausible explanation for each of the following statements:

pK_b value of aniline is more than that of Methylamine.



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203. Give plausible explanation for each of the following statements:

Aniline cannot be prepared by Gabriel phthalimide synthesis.



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204. Give plausible explanation for each of the following statements:

Gabriel phthalimide synthesis is preferred for the preparation of aliphatic primary amines.



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205. Give plausible explanation for each of the following statements:

Arere diazonium salts are relatively more stable than alkyl diazonium salts.



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206. Give plausible explanation for each of the following statements:

Tertiary amines cannot be acylated.



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207. Give plausible explanation for each of the following statements:

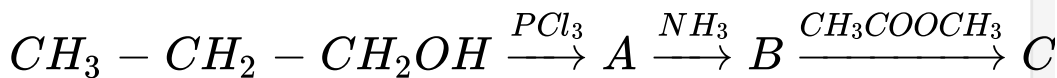
Besides the ortho and para derivatives, considerable amount of meta derivatives is also formed during nitration of aniline OR

Although amino group is o - and P - directing in aromatic electrophilic substitution reactions aniline on nitration gives a substantial amount of m-nitiline



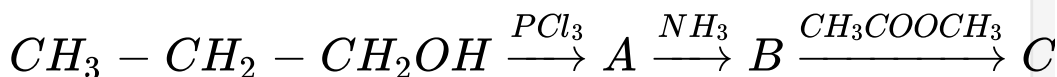
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208. Identify the compounds 'A','B' and 'C' in the following series of reaction:



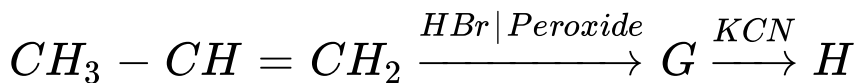
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209. Identify the compounds 'A','B' and 'C' in the following series of reaction:



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210. Identify the compounds 'G' and 'H' in the following series of reaction:



[Watch Video Solution](#)

211. Give a chemical test to distinguish between following pairs of compounds.

Ethylamine and diethyl amine.



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212. Give a chemical test to distinguish between following pairs of compounds.

Ethyl amine and aniline



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213. Give a chemical test to distinguish between following pairs of compounds.

Aniline and benzyl amine.



Watch Video Solution

214. Give a chemical test to distinguish between following pairs of compounds.

Aniline and N-methylaniline.



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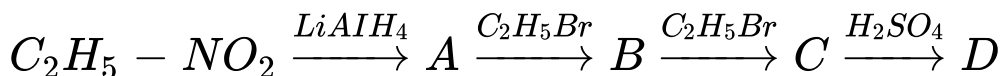
215. An organic compound 'A' having molecular formula C_2H_6O evolves hydrogen gas on treatment with sodium metal and on treatment with red phosphorous and iodine gives compound 'B'. The compound 'B' on treatment with alcoholic KNC and on subsequent reduction gives

compound 'C'. The compound 'C' on treatment with nitrous acid evolves nitrogen gas. Write the balanced chemical equations for all the reactions involved and identify the compound 'A' 'B' and 'C'.



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216. Identify the compounds A, B, C, and D in the following series of reactions and rewrite the complete equations:



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217. Find X if, Compound 'X' with a molecular formula $C_4H_{11}N$ did not react with Hinsberg's reagent, but reacted with one mole of CH_3I to form a salt.



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Exercise

1. The hybridization of nitrogen in primary amine is.....

A. sp

B. sp^2

C. sp^3

D. sp^2d

Answer:



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2. Isobutyl amine is an example of

A. 2° amines

B. 3° amines

C. 1° amines

D. quaternary ammonium salt

Answer:



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3. Which one of the following compound has the highest boiling point?

A. n-Butylamine

B. sec-Butylamine

C. Isobutylamine

D. tert-Butylamine

Answer:



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4. Which of the following has the highest basic strength?

A. Trimethylamine

B. Methylamine

C. Ammonia

D. Dimethylamine

Answer:



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5. Which type of amine does produce N_2 when treated with HNO_2 ?

A. Primary amine

B. Secondary amine

C. Tertiary amine

D. Both Primary and Secondary amines

Answer:



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6. Carbylamines Test is given by

A. Primary amine

B. Secondary amine

C. Tertiary amine

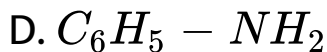
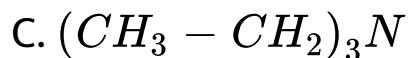
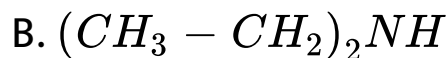
D. Both secondary and tertiary amines

Answer:



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7. Which one of the following compound does not react with acetyl chloride?



Answer:



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8. Which of the following compound will dissolve in aqueous NaOH after undergoing reaction with Hinsberg's reagent?

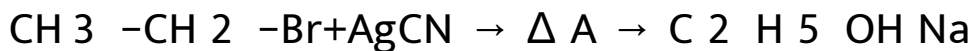
- A. Ethylamine
- B. Triethylamine
- C. Trimethylamine
- D. Diethylamine

Answer:

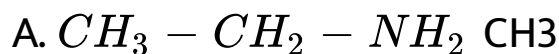


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9. Identify 'B' in the following reactions



B.



Answer:



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10. Which of the following compounds contains azo linkage?

- A. Hydrazine
- B. p-Hydroxyazabenzene
- C. N-Nitrosodiethylamine
- D. Ethylenediamine

Answer:



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11. Which of the following amines cannot be prepared by Gabriel phthalimide synthesis?

- A. Sec-propylamine
- B. tert-butylamine
- C. 2-Phenylethylamine
- D. N-Methylbenzylamine

Answer:



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12. Which of the following compounds has highest boiling point?

- A. Ethane
- B. Ethanoic acid
- C. Ethanol
- D. Ethanamine

Answer:



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13. Identify the correct statement about the basic nature of amine:

A. Alkyl amines are weaker bases than ammonia.

B. Aryl amines are stronger bases than alkyl amines

C. Secondary aliphatic amines are stronger bases than primary aliphatic amines

D. Tertiary aliphatic amines are weaker bases than aryl amines.

Answer:



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14. The compounds A, B and C react with methyl iodide to give finally quaternary ammonium salts. Only C gives carbylamines lest while only A form yellow oily compound A, B and c are respectively.

A. Butan-1-amine , N Ethylethanamine and N, N-

Dimethylethanamine

B. N-Ethylethanamine, N, N-

Dimethylethanamine and Butan-1-amine.

C. N, N-Dimethylethanamine, N-

Ethylethanamine and Butan-1-amine.

D. N-Ethylethanamine, Butan-1-amine and N-

Ethylethanamine

Answer:



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15. Which of the following amines is most basic in nature?

A. 2,4-Dichloroaniline

B. 2,4-Dimethylaniline

C. 2,4-Dinitroaniline

D. 2,4-Dibromoaniline

Answer:



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16. How many moles of methyl iodide are required to convert ethylamine, diethyl amine and triethylamine into quaternary salt, respectively?

A. 1,2 and 3

B. 2,3 and 1

C. 3,2 and 1

D. 3,1 and 2

Answer:



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17. Which of the following amines does not undergo acetylation?

A. t-butyl amine

B. ethylamine

C. diethyl amine

D. triethylamine

Answer:



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18. Acetoxime on catalytic reduction gives:

A. acetic acid

B. acetic anhydride

C. aethylamine

D. isopropyl amine

Answer:



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19. n-Propylamine can be prepared by catalytic reduction of:

- A. n-propyl cyanide
- B. Propionaldoxime
- C. acetoxime
- D. nitroethane

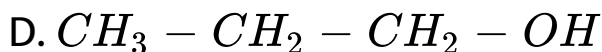
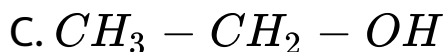
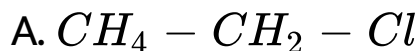
Answer:



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20. Identify the components 'A' and 'B' in the following reactions.

'A' $\xrightarrow{\text{nitration mixture}}$ 'B'
'B' $\xrightarrow{\text{Sn/Conc.HCl}}$ Aniline`



Answer:



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21. Secondary nitroalkanes react with nitrous acid to form:

- A. red solution
- B. blue solution
- C. green solution
- D. yellow solution

Answer:



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22. Chloropicrin is used as:

- A. antiseptic
- B. antibiotic
- C. insecticide
- D. anesthetic

Answer:



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23. The IUPAC name of CH_3NH_2 is

- A. methyl amine
- B. amino methane
- C. methanamine
- D. both b and c

Answer:



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24. Amines are the derivatives of

- A. Acids
- B. Ammonia

C. Alkenes

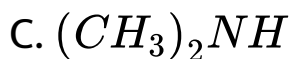
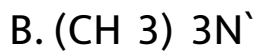
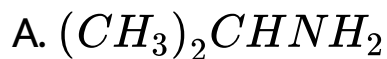
D. $-NH_2$ group

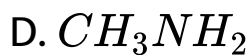
Answer:



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25. Write the structural formula of N-methyl acetamide.





Answer:



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26. An Amine may contain

A. $-NH_2$ group

B. $-NH$ group

C. $-N$ group

D. All

Answer:



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27. Which of the following is a secondary amine?

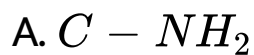
- A. Dimethyl amine
- B. Aniline
- C. Isobutylamine
- D. Secondary butylamine

Answer:



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28. Which of the following is a secondary amine?



Answer:



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29. IUPAC nam of $CH_3(CH_2)_2NH_2$ is

- A. Propane-1,2-diamine
- B. Propanamine-1,2
- C. Dipropane1,2-amine
- D. Diamino1,2Propane

Answer:



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30. IUPAC nam of $CH_3(CH_2)_2NH_2$ is

- A. 1-Propananamine
- B. 2-Methyl ethanamine
- C. Iso-Propylamine
- D. 2° – *Propyla min e*

Answer:



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31. IUPAC name of $C_6H_5 - CH_2 - CH_2 - NH_2$ is

- A. 2-phenyl ethanamide
- B. 2-phenyl ethanamine

C. 2-phenyl ethylamine

D. 3-phenyl ethanamine

Answer:

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32. Systematic name of



A. 4-amino benzene carbaldehyde

B. P-amino benzaldehyde

C. 3-amino benzaldehyde

D. 4-formyl amine

Answer:



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33. IUPAC name of aniline is

A. Phenyl amine

B. Amino benzene

C. Benzyl amine

D. none of these

Answer:



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34. The IUPAC name of CH_3NH_2 is

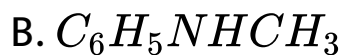
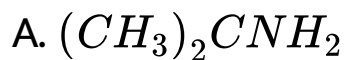
- A. Meta-bromoaniline
- B. 3-bromo benzenamine
- C. Meta-bromo n-benzyl amine
- D. 3-bromo benzyl amine

Answer:



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35. Which of the following is 1° amine?

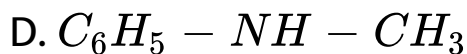
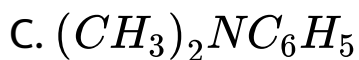
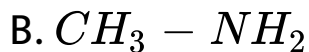
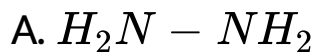


Answer:



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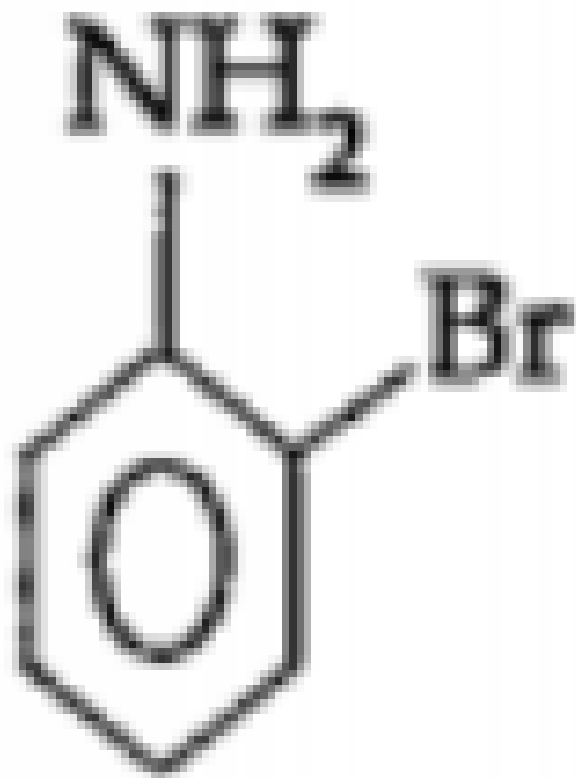
36. Which of the following is a secondary amine?



Answer:



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37.

is

- A. Aliphatic 1° -amine
- B. Aromatic 1° -amine
- C. Aliphatic 2° -amine

D. Aromatic 2°-amine

Answer:



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38. Aniline can be industrially prepared from nitrobenzene by using

A. $LiAlH_4$

B. Na / C_2H_5OH

C. Sn / HCl

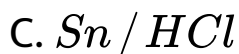
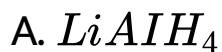
D. Fe, steam and HCl

Answer:



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39. The reducing agent used for preparing amine from nitro benzene in the laboratory is _____ .



Answer:



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40. Benzene diazonium chloride is the product of aniline, when it is treated with

A. $NaNO_2$ and HCl at $0 - 5^\circ C$

B. H_2O and HCl at $4^\circ C$

C. $C_6H_5NO_2$ at $4^\circ C$

D. $NaNO_2$ at $4^\circ C$

Answer:



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41. Aniline dissolves in HCl due to the formation of

A. Anilinium chloride

B. o-chloro aniline

C. Azodye

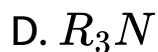
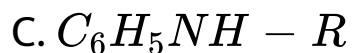
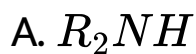
D. Chloretone

Answer:



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42. Carbylamines reaction is a characteristic of



Answer:



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43. Carbylamines reaction is given by:

A. aliphatic amines

B. aromatic amines

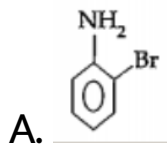
C. both aliphatic and aromatic primary amines

D. all secondary amines

Answer:

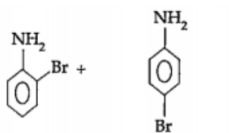
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44. Aniline treated with Br_2 in the presence of H_2O gives

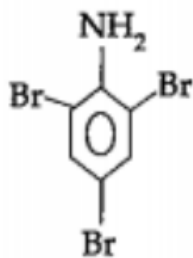




B.



C.



D.

Answer:



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45. Acetanilide can be obtained by the following

A. Benzoylation of aniline

B. Alkylation of aniline

C. Acetylation of aniline

D. Reaction between acetaldehyde and aniline

Answer:



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46. Aniline on heating with fuming sulphuric acid gives

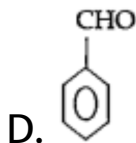
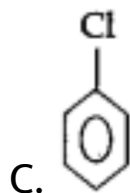
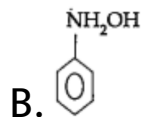
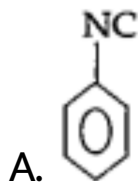
- A. Aniline disulphate
- B. Sulphanilic acid
- C. Aniline sulphate
- D. Aniline 2,4 disulphonic acid

Answer:



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47. Aniline treated with chloroform in the presence of basic medium gives,



Answer:



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48. Which is not a property of aniline?

- A. it is basic in nature
- B. it gives carbylamines
- C. it can react with alkyl halide
- D. it turns blue litmus red

Answer:



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49. 1 mole of $C_6H_5NHCH_3$ can react with a maximum of ___ moles of CH_3I .

A. 4

B. 3

C. 2

D. 1

Answer:



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50. Zwitter ion can be formed by

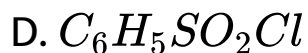
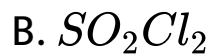
- A. Acetanilide
- B. Benzanilide
- C. Sulphanilic acid
- D. Benzene sulphonamide

Answer:



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51. In the sulphonylation of aniline the reagent is



Answer:



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52. For the conversion of Aniline of N-Methyl aniline, the reagent used is



B. C_6H_5Cl

C. CH_4

D. CH_3NH_2

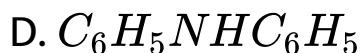
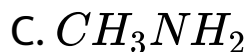
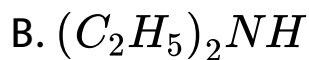
Answer:



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53. Which of the following compound will dissolve in an alkali solution after it has gone undergone reaction with Hinsberg's reagent?

A. $(C_2H_5)_2NH$



Answer:



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54. 2,4,6-tribromo aniline is a product of



D. nucleophilic substitutin or $C_6H_5NH_2$

Answer:



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55. Aniline undergoes condensation form Schiff's base on reacting with

A. acetyl chloride

B. Ammonia

C. Acetone

D. Benzaldehyde

Answer:



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56. Primary amines be distinguished from other amines by the following test.

A. Tollens

B. Schiff's

C. Carbyl amine

D. Fehline

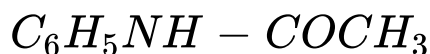
Answer:



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57. Ortho nitro aniline is a product of

A. electrophilic substitution



B. electrophilic substitution on $C_6H_5NH_2$

C. nucleophilic addition on $C_6H_5NH_2$

D. nucleophilic substitution on $C_6H_5NH_2$

Answer:



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58. Aniline does not take part in

A. Friedel craft alkylation

B. Friedal craft acylation

C. both (A) and (B)

D. none of these

Answer:



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59. Aniline is purified by

A. Steam distillation

B. Sublimation

C. Distillation

D. Hydrolysis

Answer:



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60. Schiff's base is used as a

A. oxidant

B. hydrolyzing agent

C. antichlor

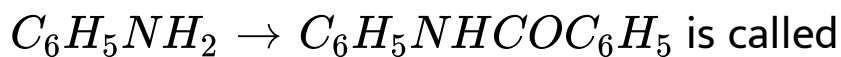
D. antioxidant

Answer:



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61. The reaction:



A. Friedel craft reaction

B. Claisen condensation

C. Hinsberg reaction

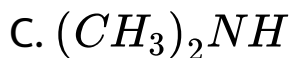
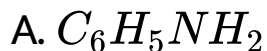
D. Schotten Baumann reaction

Answer:



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62. Which of the following is least basic?





Answer:



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63. Bromine water reacts with aniline to give

A. o-bromoaniline

B. p-bromoaniline

C. m-bromoaniline

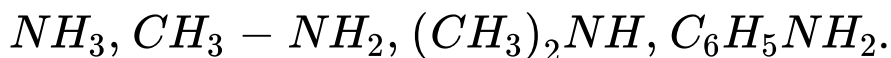
D. 2,4,6 tribromoaniline

Answer:



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64. Arrange the following amines in the decreasing order of their basic strength.



A. IIIgtIIgtI

B. IIgtIIIgtI

C. IIgtIgtIII

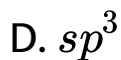
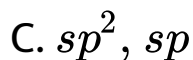
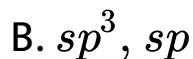
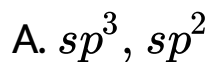
D. I=II=III

Answer:



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65. In phenyl isocyanide, the carbons are



Answer:



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66. Arrange the following in the correct order of their basic character: (I) NH_3 (II) RNH_2 (III) R_2NH (IV) R_3N

A. IV > III > II > I

B. III > IV > II > I

C. III > II > IV > I

D. I > II > III > IV

Answer:



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67. Gabriel phthalimide synthesis is used in the preparation of

A. 1° amine

B. 2° amine

C. 3° amine

D. 4° amine

Answer:



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68. When acetamide react with Br_2 and caustic soda, we get

- A. acetic acid
- B. bromoacetic acid
- C. ethylamine
- D. CH_3NH_2

Answer:



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69. The hybridization of nitrogen in primary amine is.....

A. sp

B. sp^2

C. sp^3

D. dsp^2

Answer:



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70. Hoffmann's hypobromite reaction affords a method of

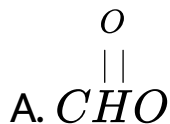
- A. Preparing tertiary amine
- B. Preparing a mixture of amines
- C. Stepping down a series
- D. Stepping up a series

Answer:



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71. Which of the following would undergo Hofmann's reaction to give a primary amine?



Answer:



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72. Steam distillation method is useful for the purification of

- A. Nitrobenzene
- B. Benzene
- C. Aniline
- D. Both Nitrobenzene and Aniline

Answer:



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73. Aniline is less basic than

A. NH_3

B. CH_3NH_2

C. N-methyl Aniline

D. All the above

Answer:



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74. Among the following which is more basic

- A. n-butyl amine
- B. isobutylamine
- C. Sec butylamine
- D. diethylamine

Answer:



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75. Which of the following can react with an alkyl halide?

- A. 1° amine

B. 2° amine

C. 3° amine

D. All the above

Answer:



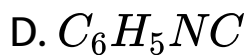
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76. The substance with nauseating smell is

A. C_6H_5CN

B. $C_6H_5NO_2$

C. $C_6H_5NH_2$



Answer:



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77. Aniline is obtained by destructive distillation of

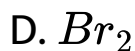
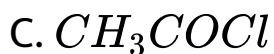
- A. Coal tar
- B. Molasses
- C. Indigo
- D. Proteins

Answer:



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78. Which one of the following type of cells lack nucleus?



Answer:



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79. Which of the following is a mixed 2° amine?

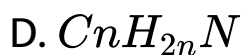
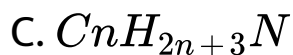
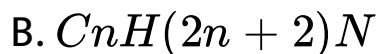
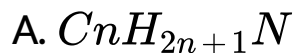
- A. Toluidine
- B. N-Methyl aniline
- C. Diethylamine
- D. Methyl diethyl amine

Answer:



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80. Which of the following is the general formula of amines?

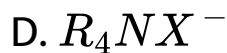
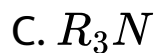
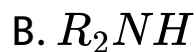


Answer:



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81. The general formula of quaternary ammonium salt is



Answer:



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82. The number of moles of hydrogen atoms required to convert 1 mole nitrobenzene to hydrazobenzene is

A. 5

B. 10

C. 4

D. 8

Answer:



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83. Which of the following can be purified by steam distillation?

A. Nitro benzene

B. Aniline

C. both (A) and (B)

D. C_2H_5OH

Answer:



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84. How many primary amines are possible for the formula $C_4H_{11}N$?

A. 1

B. 2

C. 3

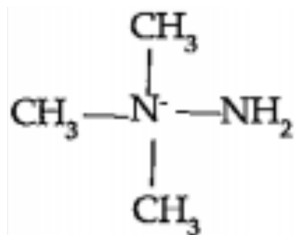
D. 4

Answer:



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85. The structure given below represents



- A. Quaternary ammonium salt
- B. Primary amine
- C. Secondary amine
- D. Tertiary amine

Answer:



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86. C_3H_9N cannot represent

A. 1° amine

B. 2° amine

C. 3° amine`

D. quaternary ammonium salt

Answer:



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87. Aniline is more basic than

A. A. NH_3

B. B. CH_3NH_2

C. C. N-methyl aniline

D. D. P-nitroaniline

Answer:

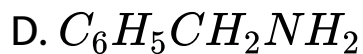
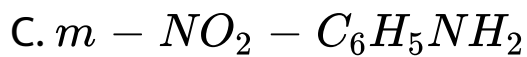


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88. Among the following the strongest base is

A. $C_6H_5NH_2$

B. $P - NO_2 - C_6H_4NH_2$



Answer:



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89. Which of the following is least basic?

A. Cyanide

B. amine

C. ammonia

D. all

Answer:



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90. Which of the following is the strongest base?

A. Aniline

B. N-methyl aniline

C. ammonia

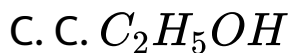
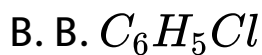
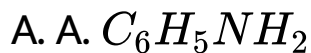
D. Benzyl amine

Answer:



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91. In the reaction of $C_6H_5OH \xrightarrow[ZnCl_2]{NH_3} X$, 'X' may be

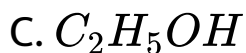
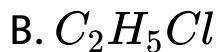
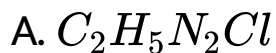


Answer:



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92. In the reaction of $C_6H_5OH \xrightarrow[ZnCl_2]{NH_3} X$, 'X' may be



Answer:



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93. In the reaction of $C_6H_5Cl \xrightarrow[X]{NH_3} C_6H_5NH_2$, X is

A. Cu_2O

B. $ZnCl_2$

C. Al_2O_3

D. ZnO

Answer:



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94. Among the following the strongest base is

A. $C_6H_5NH_2$

B. Pyridine

C. Pyrrole

D. guanidine

Answer:



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95. During the nitration of aniline, the amino group is protected by

A. Converting it to NO_2 group

B. Converting it to amide group

C. Acylation

D. Benzoylation

Answer:



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96. NH_2 group is

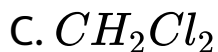
- A. Only ortho director
- B. only meta director
- C. only Para director
- D. both ortho, Para director

Answer:



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97. Aniline on heating with 'X' in the presence of KOH gives a product with very bad smell which of the following is 'X'?



Answer:



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98. By which of the following reactions one can get N-methyl aniline from aniline?

- A. Alkylation
- B. Acetylation
- C. Benzoylation
- D. Bromination

Answer:



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99. Pure aniline is a

A. Brown coloured liquid

B. colourless solid

C. colourless liquid

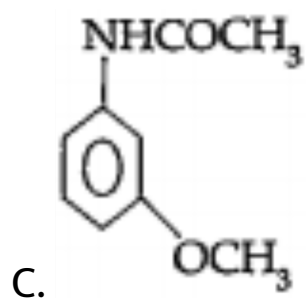
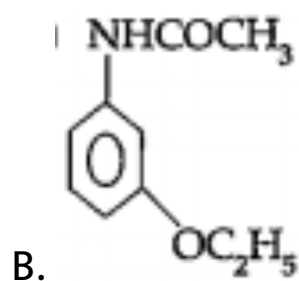
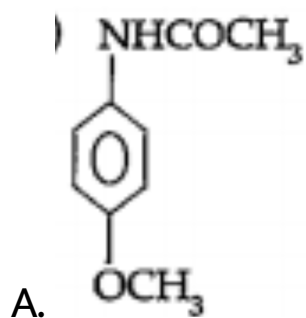
D. brown coloured solid

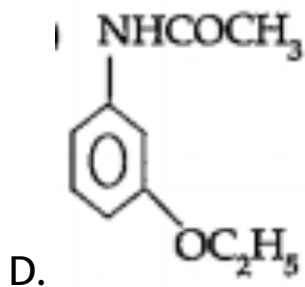
Answer:



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100. Identification phenacetin from the following:





Answer:

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101. On heating an aliphatic primary amine with chloroform and ethanolic potassium hydroxide the organic compound formed is:

A. an alkanol

B. an alkanediol

C. an alkyl cyanide

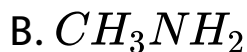
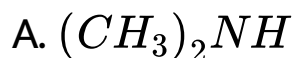
D. an alkyl isocyanide

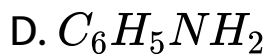
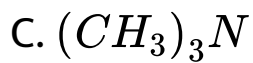
Answer:



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102. Considering the basic strength of amines in aqueous solution, which one has the smallest 'pKa' value

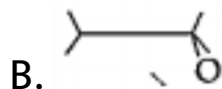
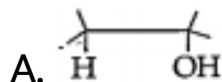
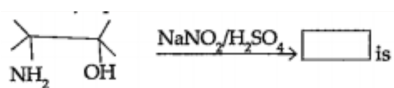


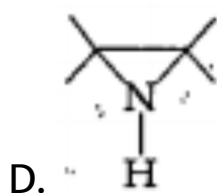


Answer:

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103. The major product of the reaction





Answer:

(##CHT_MK_ANI_CHE_XII_P2_C13_E01₁₀₄ – Q01##)

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104. The final product formed when methyl amine is treated with $NaNO_2$ and HCl is:

A. Diazomethane

B. Methylalcohol

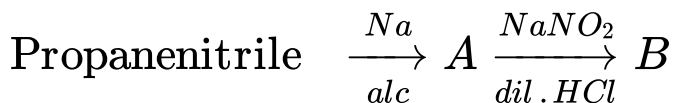
C. Methyl cyanide

D. Nitromethane

Answer:

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105. Identify the compound 'B' in the following series of reaction.



A. n-propyl chloride

B. n-propylamine

C. n-propyl alcohol

D. isopropyl alcohol

Answer:



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106. Identify the weakest base amongst the following:

A. P-methoxyaniline

B. o-toluidine

C. benzene-1,4-diamine

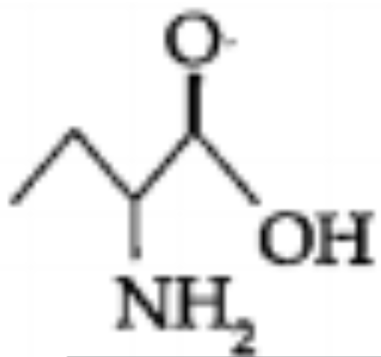
D. 4 amino benzoic acid

Answer:



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107. What is the IUPAC name of



A. α – Aminobutyric acid

B. 2-butyric acid

C. α – Aminoglutaric acid

D. 2-Aminobutanoic acid

Answer:

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108. The general formula of quaternary ammonium salt is

A. RNH_2

B. R_2NH

C. R_3N

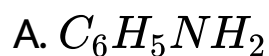


Answer:



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109. Among the following the strongest base is



B. Pyridine

C. Pyrrole

D. guanidine

Answer:



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110. The IUPAC name of CH_3NH_2 is

- A. methyl amine
- B. amino methane
- C. methanamine
- D. both (b) and (c)

Answer:



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111. Which of the following has highest boiling point?

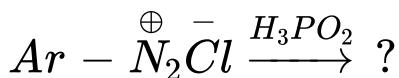
- A. Ethane
- B. Ethanoic acid
- C. Ethanol
- D. Ethanamine

Answer:



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112. Complete the following reactions:



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113. How are phenols acylated?

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114. Write IUPAC name of $CH_3N - C_2H_5$.

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115. Give the physical properties of Benzene diazonium salt.



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116. Write a note on Mendius reaction.



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117. What is Zwitter ion?



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118. Write the carbylamine reaction by using aniline as a starting material.



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119. Write chemical equation for ammonolysis of Kenzie's chloride followed by the reaction with two moles of $CH_3 - I$.



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120. Give distinguishable reaction between 1° , 2° and 3° amine by Hinsberg's test. OR

What is the action of Benzene Sulphonyl Chloride on primary, secondary and tertiary amines.

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121. Write a note on Hoffmann elimination.

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122. What is the action of acetic anhydride on Ethylamine

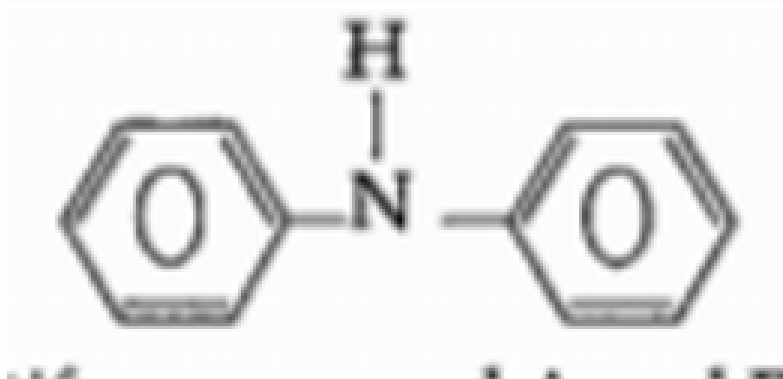
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123. Give the distinguishable reaction between 1° , 2° , 3° , amine with nitrous acid. OR

What is the action of acetic anhydride on (a) Ethylamine (b) Diethylamine.

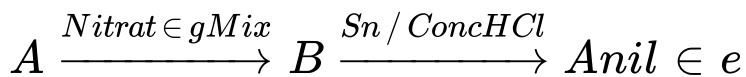
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124. Give resonating structures of aniline and explain its basicity write IUPAC name of



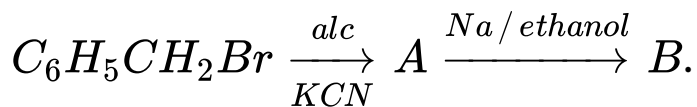
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125. Identify compound A and B in the given reaction.



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126. Identify A and B in the following reactions.



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