

Subject : CHEMISTRY DPP No. : 7 Class: XIIth Date:

		Topic :-	Amines	
1.	The action of nitrous acid on a primary amine gives:			
	a) Nitroalkane	b) Alkyl nitrite	c) Alcohol	d) Secondary amine
2.	The reduction of CH ₃ Cl	N to CH ₃ CH ₂ NH ₂ is calle	d:	
	a) Rosenmund's reduction			
	b) Clemmensen's reduction			
	c) Mendius reduction			
	d) Hofmann's reduction	ı		
3.	Aniline is reacted with Br_2 water and the resulting product is treated with an aqueous sol of sodium nitrite in the presence of diluteHCl. The compound so formed is converted into tetrafluoroborate which is subsequently heated dry. The end product is			
	a) p -bromofluorobenze	ene	$^{ m b)}p$ -bromoaniline	
	c) 2, 4, 6- tribromofluoro benzene d) 1, 3, 5- tribromobenzene			
4. The reaction, $RCOOH \frac{NaN_3}{conc} \cdot H_2SO_4RNH_2 + N_2 + CO_2$ is known as				
	a) Curtius reaction	b) Lossen reaction	c) Schmidt reaction	d) Hofmann reaction
5.	Which of the following compounds on treatment first with $NaNO_2/HCI$ and then coupled wiphenol produces p -hydroxyazobenzene?			
	a) Nitrobenzene	b) Azobenzene	c) Phenol	d) Aniline
6.	The structural formula of methyl amino methane is:			
	a) $(CH_3)_2CHNH_2$	p)(CH ³) ³ N	c) (CH ₃) ₂ NH	d) _{CH₃NH₂}

- An organic compound (C_3H_9N) (A), when treated with nitrous acid, gave an alcohol and N_2 gas was evolved. (A) on warming with CHCl₃ and caustic potash gave (C) which on reduction gave 7. isopropylmethylamine. Predict the structure of (*A*).
 - a) $\frac{\text{CH}_3}{\text{CH}_3}$ $\frac{\text{CH}-\text{NH}_2}{\text{CH}}$
 - b) CH₃CH₂—NH—CH₃
 - c) CH₃-N-CH₃ | CH₃
 - d) CH₃CH₂CH₂—NH₂
- 8. Urea when heated slowly, product formed is:
 - a) N_2
 - b) CO_2
 - c) biuret
 - d) Ammonium carbamate
- 9. Which of the following statements is not correct?
 - a) Primary amines show intermolecular hydrogen bonding
 - b) Secondary amines show intermolecular hydrogen bonding
 - c) Tertiary amines show intermolecular hydrogen bonding
 - d) Amines have lower boiling points as compared to those of alcohols and carboxylic acids of comparable molar masses
- 10. Compare boiling point of isomeric alkyl amines.

a)
$$1^{\circ} > 2^{\circ} > 3^{\circ}$$

a)
$$1^{\circ} > 2^{\circ} > 3^{\circ}$$
 b) $1^{\circ} > 2^{\circ} < 3^{\circ}$ c) $1^{\circ} < 2^{\circ} < 3^{\circ}$ d) $1^{\circ} < 2^{\circ} > 3^{\circ}$

c)
$$1^{\circ} < 2^{\circ} < 3^{\circ}$$

- 11. Hofmann's hypobromite reaction affords a method of:
 - a) Preparing a tertiary amine
 - b) Preparing a mixture of amines
 - c) Stepping down a series
 - d) Stepping up a series
- 12. A colourless, odourless and non-combustible gas is liberated when ethylamine reacts with:

- a) NaOH
- b) CH₃COCl
- c) $_{\text{NaNO}_2}$ + HCl
- $d)_{H_2SO_4}$

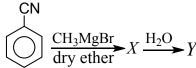
- 13. Reaction of benzaldehyde with methylamine gives
 - a) C₆H₅COOH

b) $C_6H_5N = NCl$

c) $C_6H_5 - CH = N - CH_3$

d) $C_6H_5NH_2$

14.



Identify Y

- a) Benzophenone
- b) Acetophenone
- c) Benzoic acid
- d) phenol
- 15. What is the proper sequence of reagent in the Hofmann's degradation reaction?
 - a) Br_2 , KOH, H_2O
- b) KOH, Br₂, H₂O
- c) H₂O, KOH, Br₂
- d) KOH, H₂O, Br₂
- 16. The reaction of chloroform with alcoholic KOH and *p*-toluidine form

a)
$$H_3C$$
—CN

c) H_3C —NHCHCl₂

b)
$$H_3C$$
 N_2CI

- 17. Ethyl isocyanide on hydrolysis in acidic medium generated
 - a) Ethyl amine salt and methanoic acid
- b) Propanoic acid and ammonium salt
- c) Ethanoic acid and ammonium salt
- d) Methyl amine salt and ethanoic acid
- 18. When methyl iodide is treated with ammonia, the product obtained is:
 - a) Methylamine
- b) Dimethylamine
- c) Trimethylamine
- d) All of these

- 19. Aliphatic amines are soluble in water because:
 - a) They are basic
 - b) They are amino compounds
 - c) They are lighter than water
 - d) Of formation of hydrogen bonds with water
- 20. An organic amino compound reacts with aqueous nitrous acid at low temperature to produce an oily nitrosoamine. The compound is

a) CH_3NH_2 b) $CH_3CH_2NH_2$ c) $CH_3CH_2NHCH_2CH_3$ d) $(CH_3CH_2)_3N$