

Class : XIIth Date :

Subject : CHEMISTRY **DPP No. : 10**

- 1. During diazotization of benzenamine with sodium nitrite and hydrochloric acid, the excess of hydrochloric acid is used primarily to
 - a) Check the hydrolysis of ϕOH
 - c) Check the concentration of free aniline
- b) Ensure a stoichiometric amount of nitrous acid
- d) Neutralize any base formed during reaction
- 2. Hofmann's bromamide reaction is to convert
 - a) Acid to alcohol b) Alcohol to acid
- c) Amide to amine d) Amine to amide
- 3. Examine the following two structures for the anilinium ion and choose the correct statement from the ones given below



- a) II is not acceptable as canonical structure because carbonium ions are less stable than ammonium ions
- b) II is not an acceptable canonical structure because it is non-aromatic
- c) II is not an acceptable canonical structure because in it N has 10 valence electrons
- d) II is an acceptable as canonical structure
- 4. Choose the amide which on reduction with *LiAIH*₄ yields a secondary amine
 - b) N-methylethanamide a) Ethanamide
 - c) N, N-dimethylethanamide d) Phenylmethanamide
- 5. When methyl cyanide is hydrolysed in presence of alkali, the product is:

a) Acetamide	b) Methane	c) $CO_2 + H_2O_2$	d) Acetic acid
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6. In the following reactions, reactants *A*, *B* and *C* are: $Cl_2H_5NH_2 + A \rightarrow C_2H_5N = CH - C_6H_5 + H_2O$

	Urea $+B \rightarrow H_2N - NHCONH_2 + NH_3$ CH ₂ H ₅ NH ₂ + C \rightarrow C ₂ H ₅ Cl + H ₂ O + N ₂			
	a) $CH_3CHO,NH_2 - NH_2$ and PCl_5	b) C_6H_5CHO , $NH_2 - NH_2$ and $SOCl_2$		
	c) C_6H_5 CHO, $NH_2 - NH_2$ and NOCl	d) CH_3CHO , $NH_2 - NH_2$ and PCl_3		
7.	7. Toluene is nitrated and the resulting product is reduced with tin and hydrochloric a product so obtained is diazotised and then heated with cuprous bromide. The react so formed contains.			
	a) Mixture of <i>o</i> -and <i>p</i> -bromotoluenes	b) Mixture of <i>o</i> -and <i>p</i> -dibromobenzenes		
	c) Mixture of <i>o</i> -and <i>p</i> -bromoanilines	d) Mixture of <i>o</i> -and <i>m</i> -bromotoluenes		
8.	>C=O compounds reacts with NH ₃ or amin	nes followed by H ₂ /Ni. The reaction is called b) Hofmann bromamide		
c) Reductive amination		d) Gabriel's phthalimide		
9.	A compound which on reaction with aqueous n	nitrous acid gives an oily nitrosoamine is:		
	a) Methylamine b) Ethylamine	c) Diethylamine d) Triethylamine		
10.	$ \underbrace{\bigcirc}_{\text{The product }A \text{ is}}^{O} \underbrace{\bigcirc}_{H \text{ NO}_2}^{O} \underbrace{\longrightarrow}_{A}^{\oplus} A $			
		b) $\bigvee_{NO_2} O - C - \bigvee_{O}$		
11	$O_2N \longrightarrow O \longrightarrow O \longrightarrow O$	d) $\sim 0 - C - NO_2$		

- 11. The active species produced in Hofmann's bromamide reaction is:
 - a) _{Br}-
 - b) _{Br2}
 - c) _{OBr}-
 - d) $_{OBr_2}$

12. $C_5H_{13}N$ reacts with HNO_2 to give an optically active alcohol. The compound is

a) Pentan-1-amine	b) Pentan-2-amine
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- c) N, N-dimethylpropan-2-amine d) N-methylbutan-2-amine
- 13. Reduction of alkyl nitriles, produces

a) Secondary amine b) Primary amine c) Tertiary amine d) amide

14. Which one of the following compound is most basic?



19. CHCI₃ and KOH on heating with a compound from a bad smelling product, compound is

a) _{C2H5} CN	b) _{C2H5} NC	с) _{С2Н5} ОН	d) $C_2H_5NH_2$
		- 0	

- 20. On heating urea, a gas evolves along with formation of biuret. Identify the gas.
 - a) CO b) $_{\rm NH_3}$ c) $_{\rm CO_2}$ d) $_{\rm H_2}$