



## **CHEMISTRY**

## BOOKS - JMD CHEMISTRY (PUNJABI ENGLISH)

## **AMINES**

Example

**1.** Which is formed by the reduction of RCN with sodium

and alcohol?

A.  $RCONH_2$ 

B.  $RCOO^-NH_4^{\ +}$ 

C.  $RCH_2NH_2$ 

D.  $(RCH_2)_3N$ 

## **Answer: C**



2.	Which	will	not	respond	to	carbylamine
rea	action?					

- A. Ethylamine
- B. Dimethylamine
- C. Methylamine
- D. Phenylamine

## **Answer: B**



**3.** The most basic compounds in the following is

A. Benzylamine

B. Aniline

C. Acetanilide

D. p-nitroaniline

**Answer: A** 



**4.** Treatment of ammonia with excess of ethyl iodide will

yield: Diethylamine, Ethylamine, Triethylamine, Tetraethyl ammonium iodide.

A. Diethylamine

B. Ethylamine

C. Triethylamine

D. Tetraethyl ammonium iodide

#### **Answer: D**



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**5.** Aniline upon heating with conc. $HNO_3$  and conc. $H_2SO_4$ 

mixture gives:

A. o-and p-nitroaniline

B. o-nitroaniline

C. Black tarry mass

D. No reaction

**Answer: C** 



**6.** Dye test can be used to distinguish between:

A. Ethylamine and acetamide

B. Ethylamine and aniline

C. Urea and acetamide

D. Methylamine and ethylamine

## **Answer: B**



## 7. Which one of the following is more basic?

A. 
$$C_6H_5-NH_2$$

B.  $NH_3$ 

$$\mathsf{C.}\,CH_3-CH_2-NH_2$$

D. 
$$CH_3-NH_2$$

#### **Answer: C**



8. Name the test with which primary, secondary and tertiary amines can be distinguished.

A. 
$$Br_2/KOH$$

B. HClO

 $\mathsf{C}.\,HNO_2$ 

D.  $NH_3$ 

## **Answer: C**



**9.** Which will not respond to carbylamine reaction?

A. Ethylamine

B. 
$$(CH_3)_2NH$$

$$\mathsf{C}.\,CH_3NH_2$$

D. Phenylamine

**Answer: B** 



## **10.** $C_3H_9N$ represents

- A. Primary amine
- B. Secondary amine
- C. Tertiary amine
- D. All

#### **Answer: D**



## 11. Acetone oxyme on reduction gives

- A. 1-Propanamine
- B. Isopropylamine
- C. Ethylmethylamine
- D.  $CH_4$  and ethanamine

## **Answer: B**



## 12. Which are given by carbylamine reaction?

A.  $CH_3NH_2$ 

B.  $C_2H_5NO_2$ 

C.  $CH_3CONH_2$ 

D.  $(CH_3)_2NH$ 

### **Answer: A**



13. The one which is least basic is

A.  $NH_3$ 

B.  $C_6H_5NH_2$ 

C.  $(C_6H_5)_3N$ 

D. (C\_6H\_5)\_2NH`

### **Answer: C**



**14.** p-chloroamine and anilinium hydrochloride can be

distinguished by

- A. Sandmeyer reaction
- B.  $NaHCO_3$
- $\mathsf{C}.\,AgNO_3$
- D. Carbylamine test

## **Answer: C**



**15.** How does benzene diazonium chloride react with :

Phenol

- A. Diphenyl ether
- B. p-Hydrooxyazobenzene
- C. Chlorobenzene
- D. Benzene

## **Answer: B**



# **16.** Write short note on Hoffmann's bromamide reaction

- A. HCHO
- B.  $CH_3CHO$
- C.  $CH_3OH$
- D. 📝

#### **Answer: D**



**17.** T/F - Benzene diazonium chloride on warming with water gives benzyl alcohol.

- A. Diphenyl ether
- B. p-Hydrooxyazobenzene
- C. Chlorobenzene
- D. Phenol

## **Answer: D**



18. Which is most basic?

A. Ammonia

B. Primary amine

C. Secondary amine

D. Tertiary amine

## **Answer: C**



19. Which ismore basic, aliphatic amines or ammonia and why?



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20. Aniline is less basic than ammonia



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**21.** Trimethyamine is a  $1^{\circ}$  amine



**22.** tert-Butylamine is a  $3^{\circ}$  amine.



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**23.** sec-Butylamine is a  $1^{\circ}$  amine.



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**24.** Ammonolysis of methyl chloride can be used to obtain

pure methylamine.



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**25.** In anhydrous state, basic character of ethylamines follows the order ,

 $3\degree>2\degree>1\degree$ 



**26.** In aqueous solution, basic character of methylamines follows

the order,

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



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**27.** Amino group in aniline is 0, p-directing and activating in

electrophilic substitution reactions.



**28.** Only aliphatic  $1^{\circ}$  amines give carbylamine test.



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**29.** Nitration of aniline gives a mixture of oand p-nitroanilines.



**30.** Reduction of benzenediazonium chloride with ethyl alcohol gives phenol.



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**31.** All  $1^\circ$  amines on diazotisation with  $NaNO_2(\mathbf{s})$  and  $HCl(\mathbf{aq})$ 

at low temperature give diazonium salts.



**32.** How does benzene diazonium chloride react with :

Phenol



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**33.** Write the reactions of benzenediazonium chloride with :

**Aniline** 



**34.** Write the reaction of benzene diazonium chloride with :

CuCN



**35.** The stability of arenediazonium ion is due to resonance.



**36.** How  $1^{\circ}$  amine reacts with nitrous acid?



**37.** How does benzenediazonium chloride react with :

 $HNO_2$ 



**38.**  $NH_3$  acts as a Lawis base. Comment.



**39.** Write short note on Hoffmann's bromamide



reaction

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**40.** What is Gabriel's Phthalimide synthesis?



**41.** Write short note on Hoffmann's bromamide reaction



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42. Write short note on Mendius reaction.



**43.** Ethylamine is soluble In water whereas aniline is not. Why?



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**44.** Why methyl amine has lower boiling point than methanol.



**45.** Why ethylamine is more basic than aniline ?



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**46.** Alkyl amines are stronger bases than aryl amines. Justify.



**47.** Which ismore basic, aliphatic amines or ammonia and why?



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48. Ethylamine is more basic than ammonia.

Why?



**49.** Give chemical equation for carbylamine reaction.



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**50.** Give azo dye test to distinguish between aromatic  $1^{\circ}$  amines and aliphatic  $1^{\circ}$  amines.



**51.** Describe a method for the Identification of primary, secondary and tertiary amines. Also write chemical equations of the reactions Involved.



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52. Write short note on Diazotisation.



**53.** How will you convert aniline into benzenediazonium chloride ?



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**54.** Explain the following reactions:

Balz Schiemann reaction.



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**55.** What is Coupling reaction?

**56.** Which is formed by the reduction of RCN with sodium

A.  $RCONH_2$ 

and alcohol?

 $\mathsf{B.}\,RCOO^-NH_4^{\,+}$ 

C.  $RCH_2NH_2$ 

D.  $(RCH_2)_3N$ 

Answer: C

**57.** Which will not respond to carbylamine reaction?

A. Ethylamine

B. Dimethylamine

C. Methylamine

D. Phenylamine

Answer: B



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**58.** The most basic compounds in the following is

A. Benzylamine

B. Aniline

C. Acetanilide

D. p-nitroaniline

**Answer: A** 



**59.** Treatment of ammonia with excess of ethyl iodide will

yield: Diethylamine, Ethylamine, Triethylamine,

Tetraethyl ammonium iodide.

A. Diethylamine

B. Ethylamine

C. Triethylamine

D. Tetraethyl ammonium iodide

**Answer: D** 

**60.** Aniline upon heating with conc. $HNO_3$  and conc. $H_2SO_4$ 

mixture gives:

A. o-and p-nitroaniline

B. o-nitroaniline

C. Black tarry mass

D. No reaction

Answer: C

**61.** Dye test can be used to distinguish between:

A. Ethylamine and acetamide

B. Ethylamine and aniline

C. Urea and acetamide

D. Methylamine and ethylamine

**Answer: B** 



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# 62. Which one of the following is more basic?

A. 
$$C_6H_5-NH_2$$

B.  $NH_3$ 

$$\mathsf{C.}\,CH_3-CH_2-NH_2$$

D. 
$$CH_3 - NH_2$$

#### **Answer: C**



**63.** Primary and secondary amines can be distinguished by

A. 
$$Br_2/KOH$$

$$\mathsf{C}.\,HNO_2$$

D.  $NH_3$ 

#### **Answer: C**



**64.** Which will not respond to carbylamine reaction?

A. Ethylamine

B.  $(CH_3)_2NH$ 

 $\mathsf{C}.\,CH_3NH_2$ 

D. Phenylamine

### **Answer: B**



**65.**  $C_3H_9N$  represents

A. Primary amine

B. Secondary amine

C. Tertiary amine

D. All

**Answer: D** 



# **66.** Acetone oxyme on reduction gives

- A. 1-Propanamine
- B. Isopropylamine
- C. Ethylmethylamine
- D.  $CH_4$  and ethanamine

### **Answer: B**



# 67. Which are given by carbylamine reaction?

A. 
$$CH_3NH_2$$

B. 
$$C_2H_5NO_2$$

C. 
$$CH_3CONH_2$$

D. 
$$(CH_3)_2NH$$

### **Answer: A**



68. The one which is least basic is

A.  $NH_3$ 

B.  $C_6H_5NH_2$ 

 $\mathsf{C.}\,(C_6H_5)_3N$ 

D. (C\_6H\_5)\_2NH`

### **Answer: C**



**69.** p-chloroamine and anilinium hydrochloride

can be

distinguished by

A. Sandmeyer reaction

B.  $NaHCO_3$ 

 $\mathsf{C}.\,AgNO_3$ 

D. Carbylamine test

#### **Answer: C**



**70.** How does benzene diazonium chloride react with :

Phenol

A. Diphenyl ether

B. p-Hydrooxyazobenzene

C. Chlorobenzene

D. Benzene

**Answer: B** 



**71.** What is Hofmann bromamide degradation reaction?

A. HCHO

B.  $CH_3CHO$ 

 $\mathsf{C}.\,CH_3OH$ 

D. 📝

**Answer: D** 



<b>72.</b>	How	does	benzene	diazonium	chloride
rea	ct with	<b>1</b> :			

Water

- A. Diphenyl ether
- B. p-Hydrooxyazobenzene
- C. Chlorobenzene
- D. Phenol

### **Answer: D**



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73.	Which	ıs	most	hasic?
,	• • • • • • • • • • • • • • • • • • • •		111056	243161

- A. Ammonia
- B. Primary amine
- C. Secondary amine
- D. Tertiary amine

### **Answer: C**



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**89.** Write the reaction of benzene diazonium chloride with :

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**90.** The stability of arenediazonium ion is due to resonance.



**91.** How  $1^{\circ}$  amine reacts with nitrous acid ?



**92.** How does benzene diazonium chloride react with :

 $Cu_{2}Cl_{2}$  / HCl



93. T/F Amines act as Lewis bases



**94.** What is Hofmann bromamide degradation reaction?



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95. What is Gabriel's Phthalimide synthesis?



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**96.** Write short note on Hoffman's ammonolysis.



**97.** Write the following reactions:

Mendius reaction



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