



12th Science : Chemistry
Amines,

DATE:

TIME: 1 hour

MARKS: 25

SEAT NO:

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Note:-

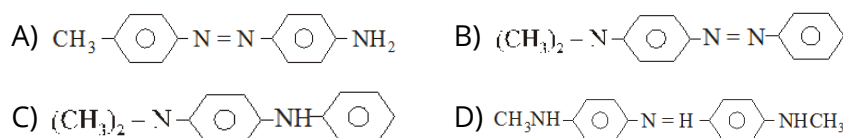
1. All Questions are compulsory.
2. Numbers on the right indicate full marks.

Section A

Q.1 Select and write the correct answer.

(4)

1. The weakest base among the following is
A) Dimethylamine B) aniline
C) methylamine D) ethylamine
2. Isobutylamine is an example of
A) 2° Amine B) 3° Amine
C) 1° Amine D) quaternary ammonium salt
3. The strongest base among the following is
A) $C_6H_5NH_2$ B) $(C_6H_5)NH$
C) NH_3 D) $(C_6H_5)_2NH$
4. Aniline when diazotized in cold and then treated with dimethyl aniline gives a coloured product its structure would be



Q.2 Answer the following.

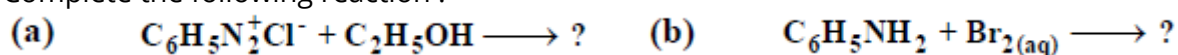
(3)

1. What is the formula of nitrous acid? Can nitrous acid be stored in bottle?
2. Can tertiary amine undergoes acetylation reaction? Explain.
3. Arrange the following :
(a) A decreasing order of Boiling Point : $C_2H_5 - OH$, $C_2H_5 - NH_2$, $(CH_3)_2NH$
(b) Increasing order of solubility : $C_2H_5 - NH_2$, $C_3H_7 - NH_2$, $C_6H_5 - NH_2$

Section B
Attempt any Four

Q.3 Complete the following reaction :

(2)



Q.4 Write chemical equation for : (2)
(a) Reaction of alc. NH_3 with $\text{C}_2\text{H}_5\text{I}$ (b) Ammonolysis of benzyl chloride followed by the reaction with two moles of $\text{CH}_3 - \text{I}$

Q.5 why pK_b Value of diethyl amine is less than that of ethyl amine? (2)

Q.6 Ethyl amine is soluble in water whereas aniline is not. (2)

Q.7 Write reactions to bring about the following reactions : (2)
(a) Aniline into p-nitroaniline (b) Aniline into sulphanilic acid

Q.8 Write the order of basicity of aliphatic alkyl amine in gaseous phase. (2)

Section C
Attempt any Two

Q.9 How are diazonium salt react with fluoroboric acid? (3)

Q.10 How are amides reduced to amines? (3)

Q.11 Explain the influence of solution by water on stabilization of NH_4^+ and aliphatic amines. (3)

Section D
Attempt any One

Q.12 How will you convert aniline into- (4)
1. Benzylalcohol 2. 4-Bromoaniline 3. 1,3,5-Tribromobenzene 4. 2,4,6-Tribromofluorobenzene

Q.13 Why the observed order of boiling point of isomeric amines is : Primary amine > Secondary amine > Tertiary amine? (4)