WORK SHEET-CHAPTER-13

CONCEPT 1: IUPAC NOMENCLATURE

1.Match the following:

a.CH_3NH_2	(i) Ethanamine
b.$C_2H_5NH_2$	(ii) Benzamine
c.$(C_2H_5)_2NH$	(iii)N-Ethyl Ethanamine
d.$C_6H_5NH_2$	(iv)N,N-Dimethyl methanamine
e.$(CH_3)_3N$	(v) Methanamine

Ans1.Match the following:

a.CH_3NH_2	(v) Methanamine
b.$C_2H_5NH_2$	(i) Ethanamine
c.$(C_2H_5)_2NH$	(iii)N-Ethyl Ethanamine
d.$C_6H_5NH_2$	(ii)Benzamine
e.$(CH_3)_3N$	(iv) N,N-Dimethyl methanamine

2.Write the IUPAC name of following:

a. C_6H_5-NH-CH_3 b. CH_3-NH-C_2H_5 c.(C_6H_5)-N-CH_3

Ans2.Write the IUPAC name of following:

S.N.	**Compounds**	**IUPAC Name**
a	C_6H_5-NH-CH_3	N-Methylaniline
b	CH_3-NH-C_2H_5	N-Methylethanamine
c	$(C_6H_5)_2$-N-CH_3	N-Methyl N-phenylaniline

3. The IUPAC name of $(CH_3)_2$-N-C_2H_5:

a) N,N-Diethylethanamine b) N,N-Dimethylethanamine

c) N,N-Ethylmethylmethanamine d) Dimethylmethanamine

4. Choose the appropriate answer of the following:

a) IUPAC name of CH_3-NH-CH_3

(i) Ethylmethylamine (ii) Methylethylamine

(iii) N-Methylethanamine (iv) N-Ethylmethanamine

b) Common name of $CH_3CH_2NH_2$?

(i) Ethylamine (ii) Ehanamine (iii)Dimethylamine (iv)None

C) IUPAC name of $(C_6H_5)_2NH$?

(i) Diphenylamine (ii) N-Phenylbenzenamine

(iii) 1,2-Diphenylamine (iv) All

d) Common name of $(CH_3)_2CH\text{-}NH_2$

(i) Isopropylamine (ii) Ethaemethanamine

(iii) Methaneehaneamine (iv) 2-Methylethanamine

5) Arrange the following alkyl groups in decreasing order

Methyl,Ethyl,Isopropyl,n-Butyl

CONCEPT 2: BASIC CHARACTER Of AMINES

Q.1 Wtite the relation between Basicity of Amine & P^{kb}

Q.2 Arrange the following in decreasing order of P^{kb} values

$C_2H_5NH_2$, $C_6H_5\text{-}NH\text{-}CH_3$, $(C_2H_5)_2NH$, $C_6H_5NH_2$

Q.3.Arrange the following Amines in increasing order of Basic character.

a. CH_3NH_2, $(CH_3)_2NH$, .$(CH_3)_3N$ in Aq.Solution & in Gaseous Phase

b. $C_2H_5NH_2$, $(C_2H_5)_2NH$, $(C_2H_5)_3N$ in Aq.Solution

Q.4 Which one is more Basic & Why?

$C_6H_5NH_2$ or $C_2H_5NH_2$

Q.6 Name the factors affecting the Basicity of Amines in Aq.Solution & in Gaseous Phase .

Q.7 Match the following .

Column (I) Amines	Column(II) P^{kb} Values
Methanamine	3.27
N-Methylmethanamine	3.29
N,N-Dimethylmethanamine	3.38
Ethanamine	4.22
Benzamine	3.25

CONCEPT-3: BOILING POINT Of AMINES

(i) Write the Factors Affecting the Boiling Point of Amines

(ii) Why is Primary Amine have higher Boiling Point than that Sec & Tert-Amines ?

(iii) Arrange the following Amines in decreasing order of B.P. 1^O , 2^O , 3^O

4. Match the following

Compounds (I)	(II) Boiling point(K)

(I)$C_4H_9NH_2$	390.3
(II)$(C_2H_5)_2NH$	300.8
(III)$C_2H_5N(CH_3)_2$	310.5
(IV)$C_2H_5CH(CH_3)_2$	329.3
(V) C_4H_9OH	350.8

5.Why are alcohols have higher B.P than that of amines of comparable molecular mass ?

CONCEPT-2: TO DISTINGUISH BETWEEN Pri ,Sec & Tert -Amines

1.Distinguish between the (a) CH_3NH_2 and $(CH_3)_2NH$ (b) Aniline & N-Methyl Aniline (c) Sec- Amine & Tert-Amine

CONCEPT-3 : NAME REACTIONS

(i) Carbyl amine reaction (ii) Sandmayer reaction (iii) Gatterman reaction