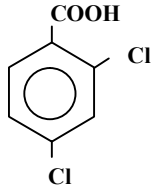
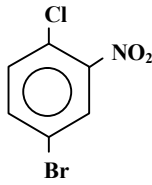
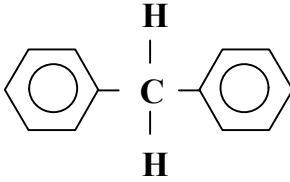
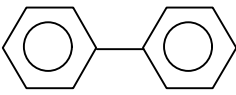
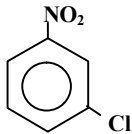
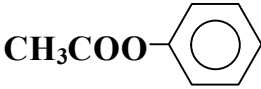
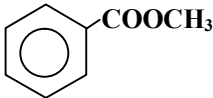
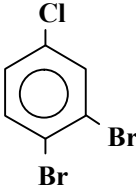
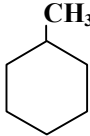


**LAST LOOK****Question No. 3****(A) Write the name of the following compounds according to IUPAC system :**

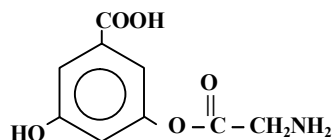
(1) $\text{CH}_3 - \text{CH}_2 - \underset{\text{Cl}}{\text{CH}} - \underset{\text{CH}_3}{\text{CH}} - \text{CH}_3$	(2) $\begin{array}{c} \text{C}_2\text{H}_5 \\   \\ \text{CH}_3 - \text{CH} - \text{C} \equiv \text{C} - \text{CH}_3 \end{array}$
(3) $(\text{COO})_2\text{Ca}$	(4) $(\text{HCOO})_2\text{Ca}$
(5) $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \underset{\text{CH}_3}{\text{CH}} - \underset{\text{CH}_3}{\text{CH}} - \text{COOH}$	(6) 
(7) 	(8) $\text{CH}_3 - \underset{\text{CH}_3}{\text{CH}} - \text{CH}_2 - \underset{\text{OH}}{\text{CH}_2}$
(9) $\text{CH}_2 = \text{CH} - \underset{\text{C}_2\text{H}_5}{\text{CH}} - \text{CH}_3$	(10) 
(11) 	(12) 
(13) $\text{CH}_3 - \underset{\text{CH}_3}{\text{CH}} - \underset{\text{Cl}}{\text{C}}(\text{C}_2\text{H}_5) - \text{CH}_3$	(14) $\text{C}_2\text{H}_5 - \text{OCOCH}_3$

(15)		(16)	
(17)	$\text{CH}_3\text{OCOC}_2\text{H}_5$	(18)	$\text{CH}_3 - \text{C} \equiv \text{C} - \text{CH}_2 - \text{CH}_2 - \text{Cl}$
(19)		(20)	$\text{HOCOCH}_3$
(21)	$\text{HCOOCH}_3$	(22)	
(23)	$\begin{array}{cccc} \text{CH}_3 & - & \text{CH} & - & \text{CH}_2 & - & \text{CH}_2 \\ & &   & &   & & \\ & & \text{Cl} & & \text{CH}_3 & & \end{array}$	(24)	$\begin{array}{c} \text{CH}_3 \\   \\ \text{CH}_2 \\   \\ \text{CH}_3 - \text{CH} - \text{CH} - \text{CH}_3 \\   \\ \text{CH}_3 \end{array}$

**(B) Write the structural formula of the following compounds :**

(1) The simplest member of Amino Acids .	(2) Heating an aqueous solution of Ammonium Cyanate .
(3) 2- Ethyl -1- butane	(4) 2- Methyl -2- butanol
(5) A compound from alkanes its molecule contains six Carbon atoms and does not contain methene group (-CH <sub>2</sub> -) .	(6) An acid in which the no. of carboxylic groups equals the no. of Carbon atoms .
(7) the ester produced from the reaction of salicylic acid and methanol.	(8) the compound produced from addition excess hydrogen bromide to ethyne .
(9) Cyclic unsaturated hydro carbon contain 10 carbon atoms and 8 hydrogen atoms .	(10) Open chain saturated hydro carbon is used to prepare toluene by catalytic reformation process .
11) Write structural formula of : Isopentyl alcohol	

(C)



✍ From the previos structural formula : Determine

- 1- The functional group give effervescence when react with sodium bicarbonate.
- 2- The functional group give violt colour when reat with Iron III chloride solution.
- 3- The functional group react with ammonia to give acid amide .
- 4- How many functional groups in Molecule .

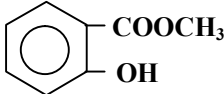
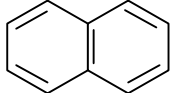
**✍ Modal Answer of ✍**  
**Question No. 3**

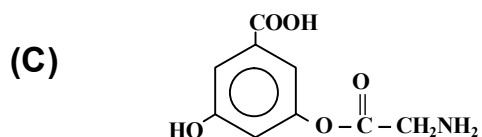
(A)

1) 3 - chloro -2- Methyl pentane	13) 3- chloro -2,4- dimethyl pentane
2) 4 - Methyl -2- hexyne	14) Ethyl ethanoate
3) Calcium Oxalate	15) phenyl ethanoate
4) Calcium Farmate (salt)	16) Methyl benzene
5) 2,3 - dimethyl hexanaic acid	17) Methyl propanoole
6) 2,4 - dichloro benzoicacid	18) 5 - chloro -2- pentyne
7) 4 - Bromo -1- chloro -2- Nitro benzene	19) 3,4- di Bromo -1- chloro benzene
8) 3 - methyl -1- butane	20) Ethanoic acid
9) 3 - methyl -1- pentene	21) Methyl Methanoote
10) Diphenyl methane	22) Methyl cyclohexane
11) Diphenyl	23) 2- chloro pentane
12) 1- chloro -3- Nitrobenzene	24) 2,3- dimethyl pentane

(B) Write the structural formula of the following compounds :

<p>(1)</p> $  \begin{array}{c}  \text{H} \quad \text{O} \\    \quad    \\  \text{H} - \text{C} - \text{C} - \text{OH} \\    \\  \text{NH}_2 \\  \text{Amino acetic acid} \\  \text{(Glycine)}  \end{array}  $	<p>(2)</p> $  \begin{array}{c}  \text{H} \quad \quad \text{O} \quad \quad \text{H} \\  \diagdown \quad \quad    \quad \quad \diagup \\  \text{N} - \text{C} - \text{N} \\  \diagup \quad \quad \quad \quad \diagdown \\  \text{H} \quad \quad \quad \quad \text{H} \\  \text{UREA}  \end{array}  $
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<p>(3)</p> $\begin{array}{c} \text{C} \\   \\ \text{H} - \text{C} = \text{C} - \text{CH}_2 - \text{CH}_3 \\   \\ \text{C}_2\text{H}_5 \end{array}$	<p>(4)</p> $\begin{array}{c} \text{CH}_3 \\   \\ \text{CH}_3 - \text{C} - \text{CH}_2 - \text{CH}_3 \\   \\ \text{OH} \end{array}$
<p>(5)</p> $\begin{array}{c} \text{CH}_3 - \text{CH} - \text{CH} - \text{CH}_3 \\   \quad   \\ \text{CH}_3 \quad \text{CH}_3 \\ \text{2,3- dimethyl butane} \end{array}$	<p>(6)</p> $\begin{array}{ccc} \text{COOH} & \text{or} & \text{HCOOH} \\   & & \\ \text{COOH} & & \text{Oxalic acid} \\ \text{Formic acid} & & \end{array}$
<p>(7)</p>  <p>(Marookh Oil) Methyl salycilate</p>	<p>(8)</p> $\begin{array}{c} \text{Br} \\   \\ \text{CH}_3 - \text{C} - \text{H} \\   \\ \text{Br} \end{array}$ <p>1,1- dibromo ethane</p>
<p>(9)</p>  <p>Naphthalene (C<sub>10</sub>H<sub>8</sub>)</p>	<p>(10)</p> $\begin{array}{c} \text{CH}_3 - \text{CH} - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{CH}_3 \\   \\ \text{CH}_3 \\ \text{2- methyl hexane} \\ \text{(Iso heptone)} \end{array}$
<p>(11) Isopentyl alcohol :</p> <p>A-</p> $\begin{array}{c} \text{CH}_3 - \text{CH} - \text{CH}_2 - \text{CH}_2 \\   \quad   \\ \text{CH}_3 \quad \text{OH} \\ \text{3- methyl -1- butanol} \\ \text{(primary alcohol)} \end{array}$	<p>B-</p> $\begin{array}{c} \text{CH}_3 - \text{CH} - \text{CH} - \text{CH}_3 \\   \quad   \\ \text{CH}_3 \quad \text{OH} \\ \text{3- methyl -2- butanol} \\ \text{(secandary alcohol)} \end{array}$



- 1- Carboxylic group .
- 2- Hydroxyl group .
- 3- Ester group .
- 4- Four functional group .