

17/MHS01/075

Da. ~~forget the rest of the calculation.~~

$$105 - 14 = 91$$

91

$$12 = 9 \cdot 6$$

$$7 \times 12 = 84$$

$$91 - 84 = 7$$

∴ The first possible formulae is  $C_7NH_7$  or  $C_7H_7N$

$C_nH_m$

$$14n = 2m + 2 - 1$$

2.

$$105 = 8 \cdot 7$$

12

=  $C_8H_9$  - Second possible formulae.

To get the third possible formulae, oxygen will be introduced.

$$105 - 14 = 91; 91 - 16 = 75$$

75

$$12 = 6 \cdot 25$$

$$6 \times 12 = 72$$

$$75 - 72 = 3$$

∴ The third possible formula is  $C_6H_3NO$

b) Importance of Organic Compounds.

- In nucleic acids
- In carbohydrates
- As the basis of food
- In lipids
- In metabolism
- In proteins
- Hydrocarbons.

10) Homocyclic  
 Ring Contains only one type of atom

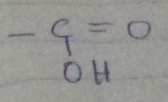
all have 100% Carbon atoms in their rings

3) Sub divided into alicyclic homocyclic & aromatic homocyclic

Heterocyclic

Ring Contains at least 2 different types of atoms including atom  
 Have mainly Carbon & In addition, heteroatoms such as Nitrogen, Oxygen and Sulphur are found in their ring

Subdivided into alicyclic heterocyclic & aromatic heterocyclic



2a) 2-4  
 12-2  
 = 0.20

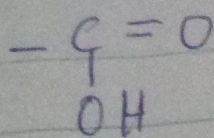
5-6  
 12-2  
 0.50

8-9  
 12-2  
 0.73

b) Aldehydes  
 c) Alkenes

Aldehydes / Ketones:

Functional group	Name	Example
1) -OH	Alcohol group	Methanol Ethanol
2) -COH	Alkanal group	Pentanal Butanal
3) C-H	Alkane group	Methane Ethane
4) C=C	Alkene group	Ethene Butene
5) C≡C	Alkyne group	Ethyne Butyne
6) $\begin{array}{c} -C- \\   \\ NH_2 \text{ OR } \\   \\ O \end{array} - C=O$	Esters	Ethyl ethanoate Ethyl pentanoate <del>Methyl methanoate</del> <del>Ethyl</del>



Carboxylic acid

Propanoic acid  
Butanoic acid.