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DEPARTMENT: MBBS

COLLEGE: MHS

SECTION 1

a.) Since the mass 105 is added, it contains at least one nitrogen

$$N=14 \text{ a.m.u}$$

$$105-14=91$$

Number of carbon atoms = 7.5

N

$$105 - [(7 \times 12) + (14 \times 1) + (1 \times X)] = 0$$

$$X=7$$

N

Adding an oxygen atom

NO

bi.) Most of the sterilizing agents & disinfectants like phenol are organic compounds.

ii.) In industries and labs, organic solvents are used as cleaning agents to clear off impurities.

iii.) Organic compounds are the main components of valuables found in the world like diamond, graphite, petroleum, etc.

iv.) Organic compounds are used in making medicines and are main components of medicines e.g. penicillin, Aspirin, cocaine, etc.

v.) Organic compounds are the main components of valuable things found in the world like diamond, graphite, petroleum, etc.

C.)

Difference Between Homocyclic and Heterocyclic Compound

Homocyclic Compound	Heterocyclic Compound
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1. they have 100% carbon atoms in their rings	They have mainly carbon and in addition heteroatoms such as nitrogen, oxygen and sulphur in their rings.
2. Their rings contain only one type of atom.	Their rings contain at least two different types of atoms including carbon.
3. They are divided into alicyclic and aromatic homocyclic compound.	They are divided into alicyclic and aromatic heterocyclic compound.

QUESTION 2

2a.) =

Distance of solvent front = 12.2cm

= 0.197

= 0.459

= 0.730

2b.) A is an aldehyde

B is an alkene

2c.) 2c. 2,4-Dinitrophenylhydrazine test is employed for Ketones and Aldehydes

2d.

Functional group	Examples
Alkanoic Acids (RCOOH)	Ethanoic acid(COOH), butanoic acid
Esters (RCOOR)	Methyl ethanoate(), Methyl methanoate (),
Alkanal (RCHO)	Methanal(HCHO) , Pentanal ()
Alkanol(ROH)	Propanol (), Butanol()
Amides (RCON)	Ethanamide (), Butanamide ()

Amides (RCON)	Ethanamide (), Butanamide ()
Amines (RN)	Methylamine (), Ethylamine ()
Alkanone	Propan-2-one (), Butan-2-one ()

