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**MATRIC NUMBER: 17/MHS01/008**

**DEPARTMENT: MEDICINE AND SURGERY**

**COLLEGE: MEDICINE AND HEALTH SCIENCES**

**100 LEVEL**

**QUESTIONS**

**QUESTION 1**

1. 1. Ethyl benzene(C8H9)

2. Phenylmethamine(C7H7N)

3. Phenylmethanone(C7H5O)

4. Pyran-3-carbonnitrile(C6H3NO)

1. IMPORTANCE OF ORGANIC COMPOUNDS

1. Food: Carbohydrates, Proteins, Fats, etc.

2. Clothes: Cotton, Silk, Wool, Nylon, etc.

3. Fuels: Coal, Wood, Natural gas, Petrol, etc.

4. Medicine: Penicillin, Morphine, Aspirin, etc.

5. Explosive: T.N.T, T.N.B, Nitrocellulose, etc.

6. Dyes: Indigo, Alizarin, etc.

7. Insecticides: D.D.T., Gammexane, etc.

8. Household and other common: soaps, detergent, cosmetics, leather, plastics, paints, rubber, resins, perfumes, etc.

1. The ring of Homocyclic compounds is made up of carbon atoms only, whereas that of heterocyclic compounds is made up of more than one king of atoms. Examples of Homocyclic compounds include Benzene, Phenol, Toluene, Naphthalene, and Anthracene. Examples of Heterocyclic compounds include Amino acids (tryptophan), alkaloids (reserpine, pilocarpine), and steroids.

**QUESTION 2**

a. Rf =

Solvent front =12.2cm

Distance moved by substance=2.4cm, 5.6cm and 8.9cm

Rf(2.4cm) = = =0.1967

Rf(5.6cm) = = = 0.4590

Rf(8.9cm) = = = 0.7295

b. Compound A belongs to Aldehydes and Compound B belongs to Alkenes.

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

d. I. Hydroxyl group, -OH e.g. Methanol, Ethanol.

ii. Amino group, -NH2 e.g. Methylamine, ethylamine.

iii. Carboxyl group, -COOH e.g. Ethanoic acid, Butanoic acid.

iv. Aldehyde e.g. Acetaldehyde (Ethanal), Pentanal.

v. Carbonyl group (Ketones) e.g. Butanone, Propanone.

vi. Esther e.g. Ethyl butanoate, Methyl ethanoate.

vii. Carboxamide (Amide) e.g. Ethanamide, Methanamide.