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DEPARTMENT: HUMAN BIOLOGY

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ASSIGNMENT

Question 1:

2. IMPORTANCE OF ORGANIC COMPOUNDS
3. Food: Carbohydrate, Proteins, Fats, vitamins, Enzymes, etc.  
     
   2. Clothes: - Cotton, Silk, Wool, Nylon, Rayon, Dacron, etc.  
     
   3. Fuels: - coal, Wood, Natural gas, Petrol, etc.  
     
   4. Medicines: - Penicillin, Streptomycin, Chloromycetin, Sulphadiazine, Morphine, Aspirin, Iodoform, Cocaine, etc.  
     
   5. Explosives: - Nitroglycerine, Nitrocellulose, T.N.B, T. N.T, etc.  
     
   6. Dyes: - Indigo, Malachite green, Alizarin, etc.  
     
   7. Insecticides: - D.D.T, Gammexane, Malathion, etc.  
     
   8. Household and other common articles:- soaps, Cosmetics, Perfumes, Detergents, paper, Rubber, Plastics, Leather,  Resins, Inks, Paints, Varnishes, Photographic films, etc.
4. Homocyclic compounds are cyclic compounds in which all the ring atoms are the same. In organic homocyclic compounds the annular atoms are all carbons. If the molecule contains carbon atoms, then it is organic (most types of heterocyclic compounds studied to date are organic compounds). An example of an organic heterocyclic compound is oxazoline

QUESTION 2:

* 1. Retardation factor= (12.2 + 2.4) ÷ (5.6 + 8.9) = 14.6 ÷ 14.5= 1.

Retardation factor=1

Rf value will always be in the range 0 to 1

* 1. I suggest they A and B belong to the family of unsaturated compounds.
  2. 2,4-Dinitrophenylhydrazine (DNPH, Brady's reagent, Borche's reagent) is the chemical compound C6H3(NO2)2NHNH2. Dinitrophenylhydrazine is a red to orange solid. It is a substituted hydrazine, and is often used to qualitatively test for carbonyl groups associated with aldehydes and ketones.
  3. 1. Hydroxyl group e.g. Alcohols and Carboxylic acid

2.Carbonyl group e.g. Esters and Anhydrides

3. Carboxyl group e.g. Carboxylic acid

4. Amino acid e.g. Alkyl group

5. Thiol group e.g. Hydroxyl group

6. Phosphate group e.g. Phospholipid in biological membrane

7. Aldehyde group e.g. Cycloalkyl carbaldehyde