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1a) C8H9, C7H7N

b) Organic compounds have versatile bonding patterns and are part of all living organisms.

**Organic compounds**are important because they serve as the basis of all carbon-based life on Earth, an element that all living organisms contain.

Organic compounds also create energy production in biological life, depletion of the atmosphere and release energy from hydrocarbons.

c) The ring of homocyclic compounds is made up of carbon atoms only while the ring of heterocyclic compounds is made up of more than one kind of atom.

2a) Rf of A= distance travelled by A/distance of the solvent front =2.4/12.2= 12/61.

Rf of B = distance travelled by B/distance of the solvent front =5.6/12.2 = 28/61.

Rf of C = distance travelled by C /distance of the solvent front =8.9/12.2 =89/122.

b) A Aldehydes

B Alkenes

c) For detecting Aldehydes and ketones.

d)

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|  | Functional groups | Examples |
| a | -Cl , -F, -Br, I | CH3CL, C2H5BR |
| b | -OH | CH3OH, C2H5OH |
| c | -COH | CH3COH, C2H5COH |
| d | -O | CH3O, C2H5O |
| e | -NH2 | CH3NH2, C2H5NH2 |
| f | -CONH2 | CH3CONH2,C2H5CONH2 |
| g | -CO | CH3CO, C2H5CO |