17/MHS01/033

1a. C7H7N, C4HNO2. ( Please pardon me. My phone can’t do subscript and there’s none to borrow laptop from right now. Please, forgive me).

1b. i. Organic compounds have versatile bonding patterns and are part of all organic matter.

ii. All living organisms need carbon for survival and even contain carbon; carbohydrates, proteins (CHON) and fats (CHO).

iii. Organic compounds are the basic framework for hydrocarbons.

iv. Substances gotten from organic compounds are used in the production of many materials e.g nylon, soap etc.

v. Diamond, a very precious substance is a product of organic compounds.

1c. In homocylic compounds, the ring is made up of carbon atoms only while in heterocyclic compounds, the ring is made up of more than one kind of atom.

2a. 1st, 2.4cm/12.2cm = 0.196

 2nd, 5.6cm/12.2cm = 0.459

 3rd, 8.9cm/12.2cm = 0.729

2b. A is an Aldehyde

 B is an alkene

2c. Testing for aldehydes and ketones.

2d. Alkanes: methane, ethane

 Alkenes: ethene, propene

 Alkynes: ethyne, propyne

 Alkanols: methanol, propanol

 Alkanoic acids: ethanoic acid, propanoic acid

 Alkyl alkanoates/ esters: methyl ethanoate, ethyl butanoate

 Alkanals/aldehydes: ethanal, pentanal