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