

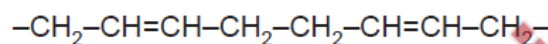
1. Nov/2023/Paper_9701/12/No.6

Which feature is present in both ethene and poly(ethene)?

- A bond angles of 109.5°
- B π covalent bonds
- C σ covalent bonds
- D sp^3 orbitals

2. June/2023/Paper_9701/11/No.39

The diagram shows a section of a polymer molecule.



Which monomer will produce this polymer?

- A $\text{CH}_2=\text{CH}_2$
- B $\text{CH}_3\text{CH}=\text{CH}_2$
- C $\text{CH}_3\text{CH}=\text{CHCH}_3$
- D $\text{CH}_2=\text{CH}-\text{CH}=\text{CH}_2$

3. June/2023/Paper_9701/12/No.39

Lactide is an intermediate in the manufacture of a synthetic fibre.



Which compound, on heating with an acid catalyst, can produce lactide?

- A hydroxyethanoic acid
- B 2-hydroxybutanoic acid
- C 2-hydroxypropanoic acid
- D 3-hydroxypropanoic acid

4. June/2023/Paper_9701/13/No.39

In polymer G every carbon atom in the polymer chain is bonded to one hydrogen atom and one methyl group.

Which alkene could be polymerised to make polymer G?

- A but-1-ene
- B but-2-ene
- C methylpropene
- D propene

5. June/2023/Paper_9701/23/No.6(a)

Compound **W**, $\text{CH}_2=\text{CHCN}$, is used to make an addition polymer which is present in carbon fibres.

(a) Draw **one** repeat unit of the addition polymer of **W**.

[1]

