

MEMORANDUM TO ORGANIC CHEMISTRY CONTROL TEST

- 1.1 homologous series
 1.2 isomer
 1.3 carboxylic acid or esters

[3]

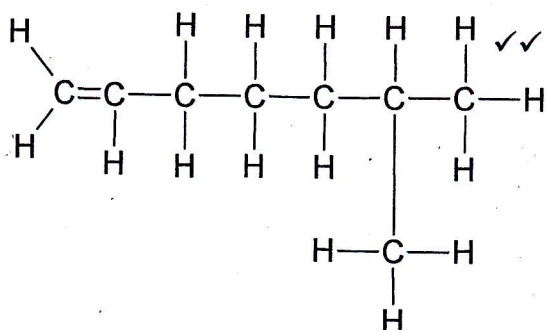
- 2.1 B ✓✓
 2.2 D ✓✓
 2.3 C ✓✓
 2.4 D ✓✓
 2.5 A ✓✓

[10]

- 3.1 Butanoic acid ✓

(1)

3.2



Condensed formula -1
 $\text{CH}_2\text{CHCH}_2\text{CH}_2\text{CH}_2\text{CH}(\text{CH}_3)\text{CH}_3$

Semi-structural formula: -1
 Mixture of structural and condensed formula:

One or more H atoms omitted, all bonds shown : - 1

(2)

- 3.3 ketone ✓

(1)

- 3.4 1-propanol / propan-1-ol / ✓✓

No hyphen in the name: - 1 mark
 Geen koppelteken in naam: - 1 punt

(2)

3.5

3.6

(2)

- 4.1 Any statement that refers to the relationship between the dependent and independent variables: eg the more carbon atoms in an alkane the higher the boiling point ✓✓ /

(2)

- 4.2 Independent variable ✓✓ /

(2)

- 4.3 higher the number of carbon atoms the higher the boiling point. ✓✓

(2)

- 4.4 More carbon atoms imply stronger Van der Waals forces ✓✓

(2)

OR Increase in IMF OR Increase in molecular mass

(2)

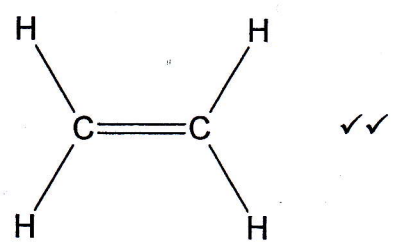
OR Increase in number of electrons /

- 4.5 Hydrogen bonding present only in alcohols ✓✓ /

(2)

[10]

5.1



(2)

5.2

The ethene liberated by the banana ages the cabbage and lettuce. ✓✓
 OR/OF Lettuce and cabbage will become spoiled/rotten
 OR/OF Lettuce and cabbage will change colour
 OR/OF Lettuce and cabbage will ripen

(2)

5.3

C_nH_{2n} ✓

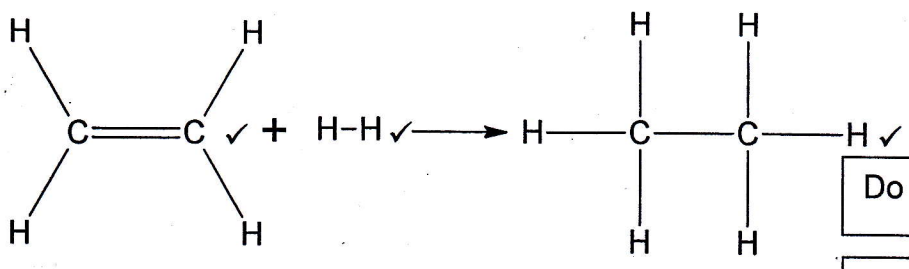
(1)

5.4

A: substitution (halogenation/bromonation) / ✓
 B: addition (hydrogenation) / ✓
 D: addition (hydration) / ✓
 H: substitution / ✓

(4)

5.5



Do not penalise for : =

Condensed or semi-structural formulae: -1

H atoms omitted: -1

If any other product/reactant is added: -1

(3)

5.6

HBr ✓✓
 (Hydrogen bromide – one mark)

(2)

5.7.1

E: concentrated / ✓
 G: dilute / ✓
 OR/OF
 Base is more concentrated in reaction E than in reaction G or base is less concentrated in reaction G than in reaction E ✓✓
 OR/OF Base in reaction E in ethanol ✓✓

(2)

5.7.2

Dehydrohalogenation/ ✓

(1)

[17]

6.1

alcohol – pentan-1-ol ✓
 Carboxylic acid – ethanoic acid ✓

(2)

