

Names of compounds

Question Paper 1

Level	IGCSE
Subject	Chemistry (0620/0971)
Exam Board	Cambridge International Examinations (CIE)
Topic	Organic chemistry
Sub-Topic	Names of compounds
Booklet	Question Paper 1

Time Allowed: 16 minutes

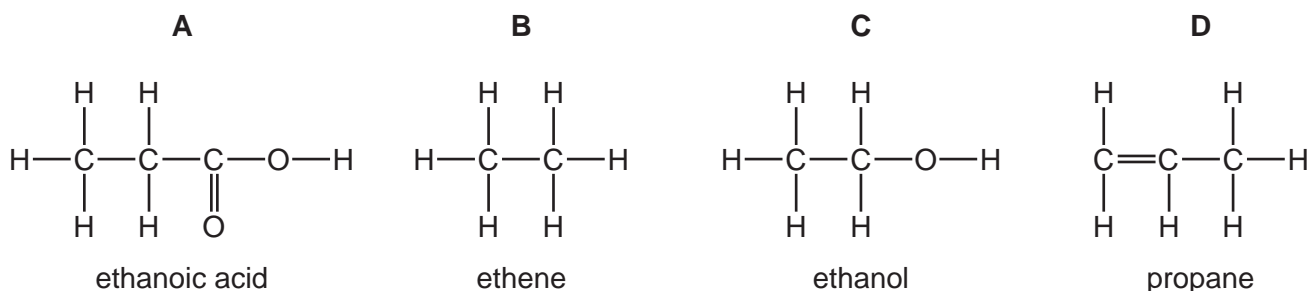
Score: /13

Percentage: /100

Grade Boundaries:

9	8	7	6	5	4	3	2	1
>85%	75%	68%	60%	53%	48%	40%	33%	<25%

1 Which structure is correctly named?



2 Organic compounds may have names ending in -ane, -ene, -ol or -oic acid.

How many of these endings indicate the compounds contain double bonds in their molecules?

- A** 1 **B** 2 **C** 3 **D** 4

3 Increasing the number of atoms in one molecule of a hydrocarbon increases the amount of energy released when it burns.

What is the correct order?

	less energy released	\longrightarrow	more energy released
A	ethene		ethane
B	ethene		methane
C	methane		ethane
D	methane		ethene

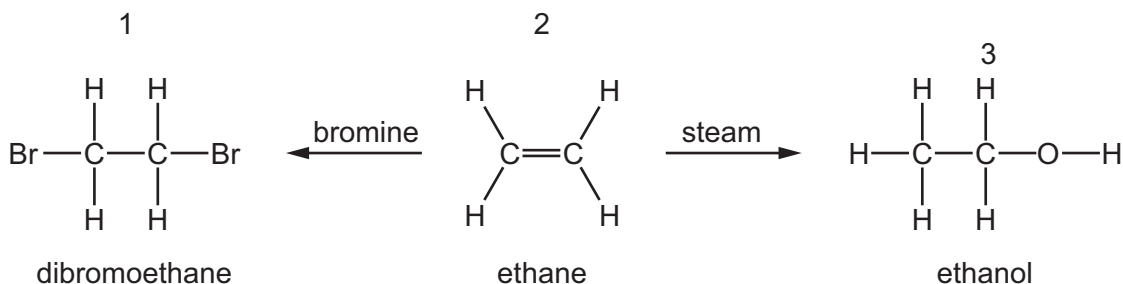
4 The list gives the names of four organic compounds.

- ethane
- ethanoic acid
- ethanol
- ethene

Which bond do all four compounds contain?

- A** C–C **B** C=C **C** C–H **D** C–O

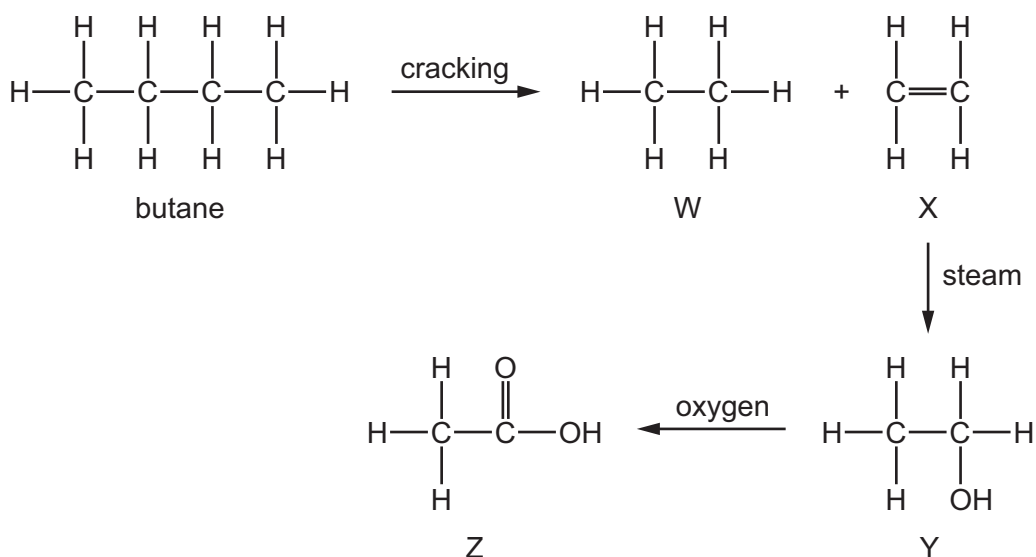
- 5 The diagram shows the structure of a simple hydrocarbon and the products of two of its reactions.



Which structures are named correctly?

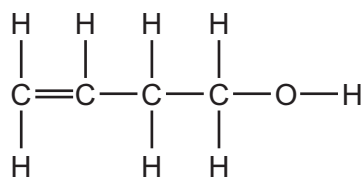
	structure		
	1	2	3
A	✓	✓	x
B	✓	x	✓
C	x	✓	✓
D	x	✓	x

- 6 What are the names of the compounds shown in the reaction scheme below?



	W	X	Y	Z
A	ethane	ethene	ethanol	ethanoic acid
B	ethane	ethene	ethanoic acid	ethanol
C	ethene	ethane	ethanol	ethanoic acid
D	ethene	ethane	ethanoic acid	ethanol

7 The diagram shows the structure of a compound.



Which functional groups does this molecule contain?

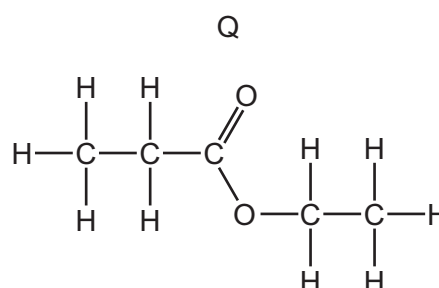
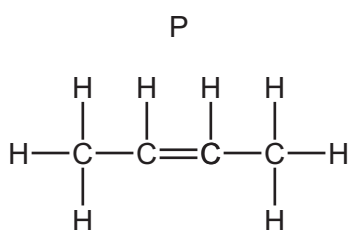
	carboxylic acid	alkene	alcohol
A	no	no	no
B	no	yes	yes
C	yes	no	yes
D	yes	yes	yes

8 Which compounds contain the same number of carbon, hydrogen and oxygen atoms?

W	X	Y	Z
ethyl methanoate	methyl ethanoate	methyl methanoate	ethyl ethanoate

A W and X **B** W and Y **C** X and Z **D** Y and Z

9 The structure of an alkene and the structure of an ester are shown.



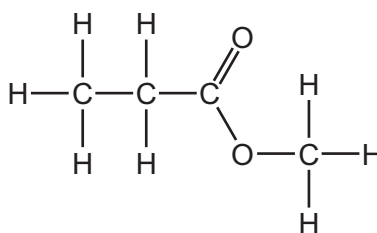
What are the names of P and Q?

	P	Q
A	but-1-ene	ethyl propanoate
B	but-1-ene	propyl ethanoate
C	but-2-ene	ethyl propanoate
D	but-2-ene	propyl ethanoate

10 Which pair of molecules are hydrocarbons?

- A ethane and ethanol
- B ethane and ethene
- C ethanoic acid and ethene
- D ethanol and ethanoic acid

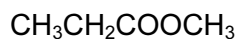
11 The structure of an ester is shown.



Which row is correct?

	name of ester	names of the carboxylic acid and the alcohol used to form the ester
A	methyl propanoate	methanoic acid and propanol
B	methyl propanoate	methanol and propanoic acid
C	propyl methanoate	methanoic acid and propanol
D	propyl methanoate	methanol and propanoic acid

12 The structural formula of an organic compound is shown.



What is the name of this compound?

- A butanoic acid
- B ethyl ethanoate
- C methyl propanoate
- D propyl methanoate

13 Which statement about methane is **not** correct?

- A It is a greenhouse gas.
- B It is an alkene.
- C It is formed by decomposition of vegetation.
- D It is used as a fuel.