

O Level Pure Chemistry MCQs

Organic Chemistry Test 1.0

Q1

Two hydrocarbons have the same percentage by mass of carbon and hydrogen.

Which statement is true for both hydrocarbons?

- A They belong to the same homologous series.
- B They have similar chemical properties.
- C They have the same empirical formula.
- D They have the same molecular formula.

Q2

In which reaction is water **not** a product?

- A combustion
- B esterification
- C fermentation
- D neutralization

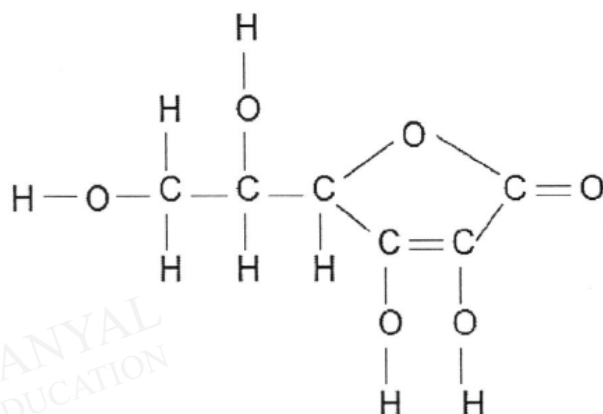
Q3

In the polymerization of ethene to polyethene, there is **no** change in

- A boiling point.
- B density.
- C empirical formula.
- D molecular formula.

Q4

The structural formula of an organic compound is shown below.



Which substance(s) can react with this compound?

- I acidified potassium manganate(VII)
- II aqueous bromine
- III sodium carbonate

- A I and II only
- B I and III only
- C II and III only
- D I, II and III

Q5

A student investigated the reaction of different vegetable oils with hydrogen.

100 cm³ of hydrogen was passed through 1 g samples of vegetable oils containing a suitable catalyst. The volume of hydrogen gas remaining in each reaction was recorded in the table below.

vegetable oil	volume of hydrogen remaining (cm ³)
P	100
Q	87
R	0

Which vegetable oil(s) is/are unsaturated?

- A P only
- B P and Q
- C Q and R
- D R only

Q6

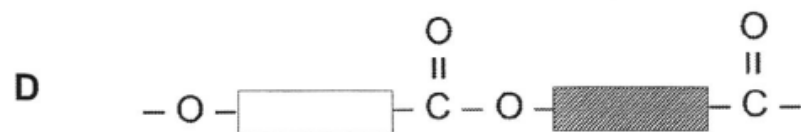
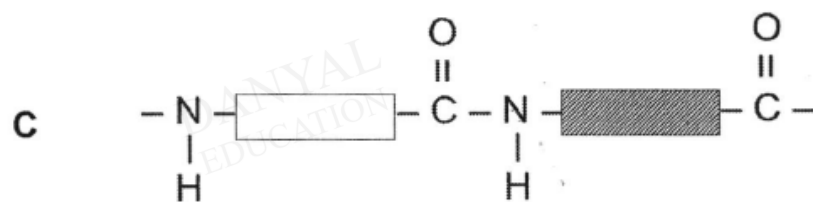
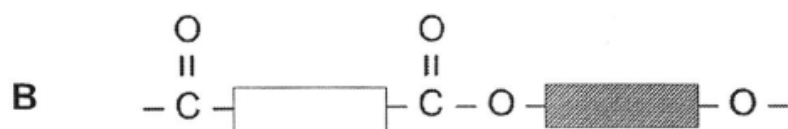
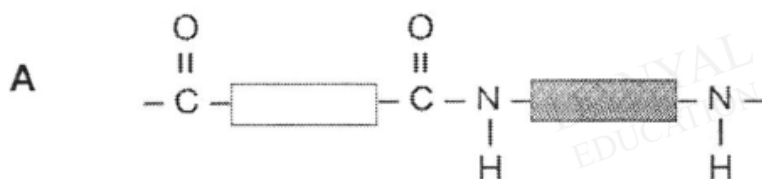
The reaction between a carboxylic acid, C_xH_yCOOH and an alcohol, $C_zH_{2z+1}OH$ produces an ester.

How many carbon, hydrogen and oxygen atoms are there in this ester?

	number of carbon atoms	number of hydrogen atoms	number of oxygen atoms
A	$x + z$	$y + 2z$	2
B	$x + z$	$y + 2z + 1$	2
C	$x + z + 1$	$y + 2z$	2
D	$x + z + 1$	$y + 2z + 1$	2

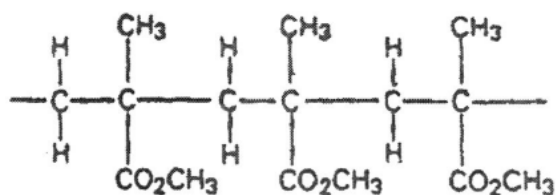
Q7

What is the correct structure of nylon?



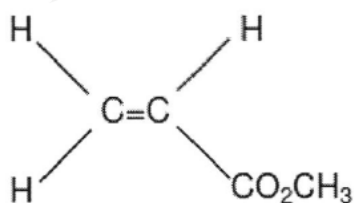
Q10

The structure of the plastic Perspex is shown below.

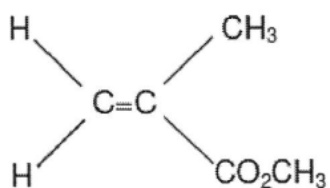


What is the molecular structure of the monomer from which this plastic is formed?

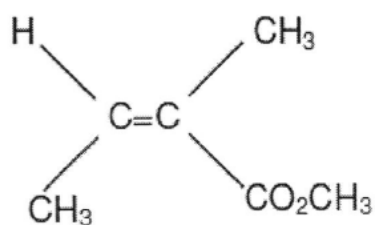
A



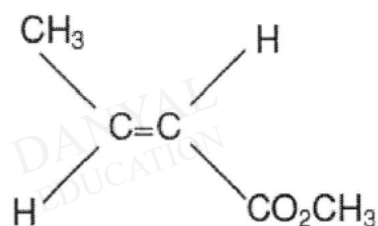
B



C



D



Answers

Organic Chemistry Test 1.0

Q1 C

Q2 C

Q3 C

Q4 A

Q5 C

Q6 D

Q7 A

Q8 D

Q9 C

Q10 B

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