

O Level Pure Chemistry MCQs

Organic Chemistry Test 3.0

Q1

The compound C_6H_{10} is a member of a hydrocarbon homologous series. What can be the first possible member of this series with the smallest relative molecular mass?

- A C_2H_2 B C_2H_3 C C_2H_4 D C_2H_6

Q2

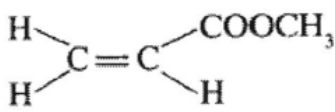
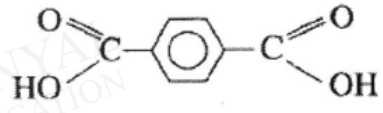
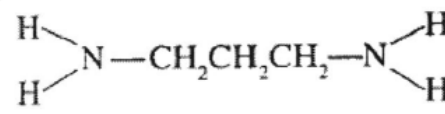
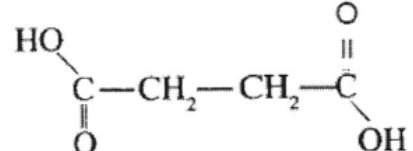
In which of the following processes will carbon dioxide be produced?

- 1 fermentation of glucose solution
- 2 formation of ethanoic acid from ethanol
- 3 photosynthesis by green plants
- 4 treatment of car exhaust gases in catalytic converter

- A 1 and 2 B 1 and 4
C 1, 3 and 4 D 4 only

Q3

Which of the following monomers can be used to produce condensation polymers?

- 1 
- 2 
- 3 
- 4 

- A 1 and 3 B 2 and 4
C 1, 2 and 4 D 2, 3 and 4

Q4

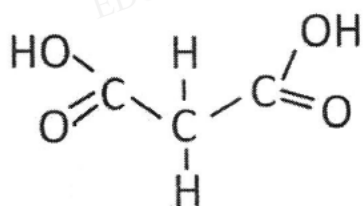
0.1 mole of a polyunsaturated hydrocarbon reacts with 9.6 dm^3 of hydrogen gas. If the compound has 21 carbon atoms in its structure.

What is the chemical formula of the hydrocarbon?

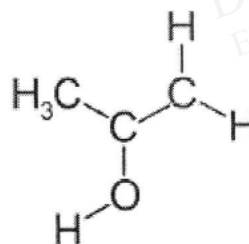


Q5

The structure of propanedioic acid and propanol are shown below.



propanedioic acid



propanol

How many of the following substances can be used to distinguish between the two compounds?

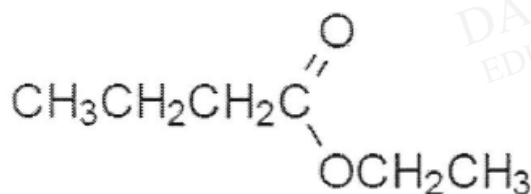
- I. aqueous bromine
- II. zinc carbonate
- III. acidified potassium manganate(VII) solution

A 0
C 2

B 1
D 3

Q6

Rum flavouring is based on the compound with the formula shown below.

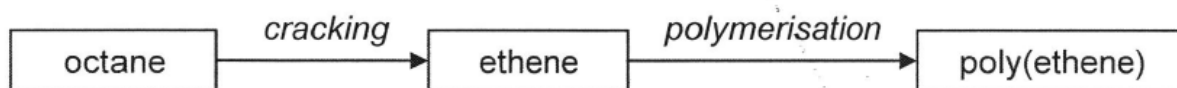


The compound can be made from _____.

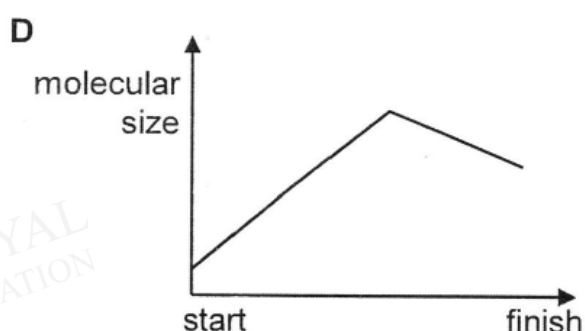
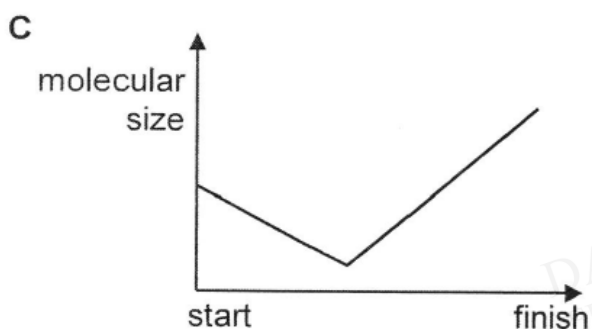
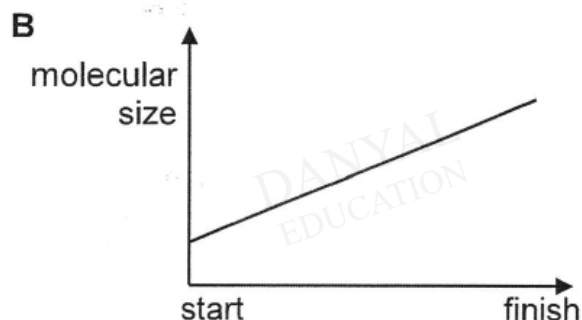
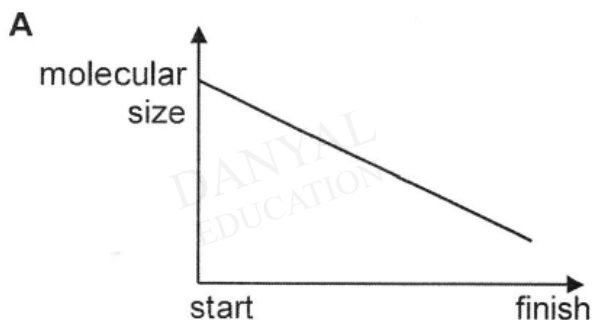
- A propanol and methanoic acid
- B ethanol and butanoic acid
- C butanol and ethanoic acid
- D propanol and propanoic acid

Q7

Poly(ethene) can be manufactured by the process below.

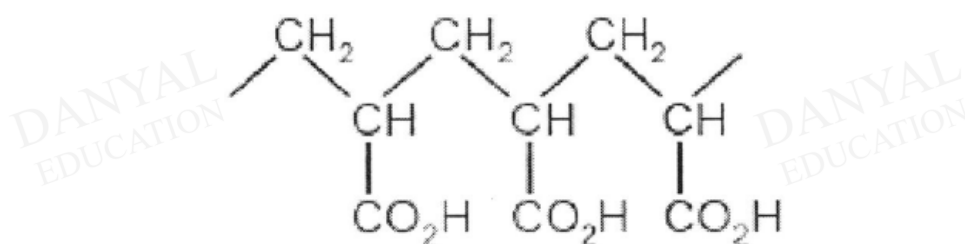


Which diagram shows the change in molecular size during this process?



Q8

The absorbent material in babies' disposable nappies is made from the polymer shown below.



From which monomer could this polymer be obtained?

- A** $\text{H}_2\text{C}=\text{CHCO}_2\text{H}$
- B** $\text{HO}_2\text{CCH}=\text{CHCO}_2\text{H}$
- C** $\text{HOCH}_2\text{CH}_2\text{CO}_2\text{H}$
- D** $\text{CH}_3\text{CH}_2\text{CH}_2\text{CO}_2\text{H}$

Q9

A molecule of $C_{17}H_{36}$ undergoes catalytic cracking. The products of the reaction are one butane molecule, one propene molecule and some ethene molecules.

How many ethene molecules are produced during the reaction?

- A 3
- B 5
- C 6
- D 8

Q10

Adrenic acid is a naturally occurring polyunsaturated fatty acid with a molecular formula of $C_{22}H_{36}O_2$. It is one of the most abundant fatty acids in the early human brain.

What is the number of carbon-carbon double covalent bonds present in one molecule of the acid?

- A 4
- B 5
- C 6
- D 8

Answers

Organic Chemistry Test 3.0

Q1 A

Q2 B

Q3 D

Q4 A

Q5 C

Q6 B

Q7 C

Q8 A

Q9 B

Q10 A

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