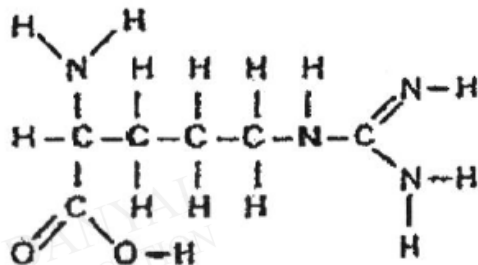


O Level Pure Chemistry MCQs

Organic Chemistry Test 9.0

Q1

Below is a diagram of the amino acid, arginine.



Which of the following statements about arginine is true?

- A It reacts with magnesium to form hydrogen gas.
- B It forms an addition polymer with other amino acids.
- C It readily decolourises acidified potassium manganate(VII).
- D It undergoes polymerisation with other amino acids to form a polymer with the same linkage as *Terylene*.

Q2

A mixture of four gases, methane, ethane, propane and butane is cooled until the first drop of liquid is formed.

What compound is most likely to be present in this drop?

- A butane B ethane C methane D propane

Q3

The alcohol C_4H_9OH , on oxidation with acidified potassium dichromate(VI), gives a carboxylic acid X.

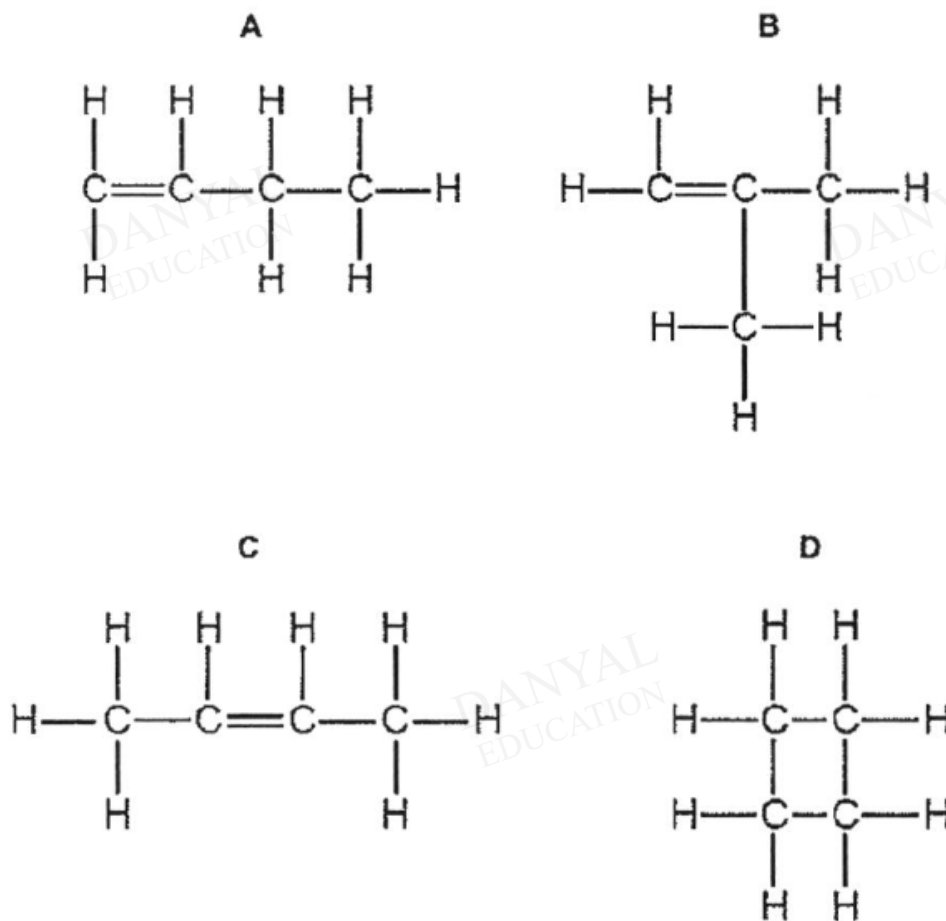
Which acid is X?

- A C_4H_9COOH B C_3H_7COOH C C_2H_5COOH D CH_3COOH

Q4

Substance X has a molecular formula C_4H_8 and does not undergo addition polymerisation.

What is the structural formula of X?



Q5

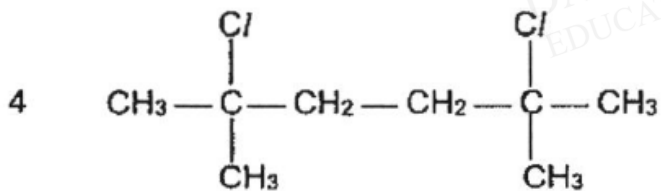
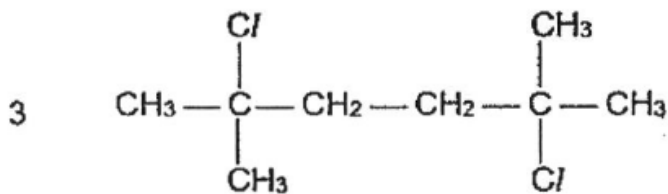
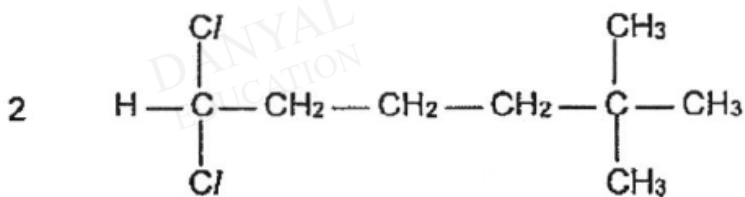
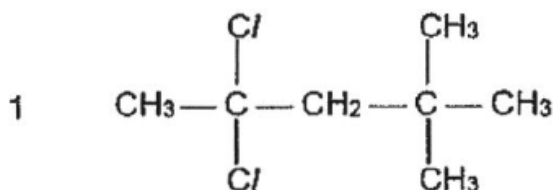
Propanol and ethanoic acid react to form a compound X.

What is the formula of compound X?

- A $C_2H_5COOC_2H_5$
- B $CH_3COOC_2H_5$
- C $C_2H_5COOC_3H_7$
- D $CH_3COOC_3H_7$

Q6

Study the four structures of an organic compound.



Which two structures are isomers?

A 1 and 2

B 2 and 3

C 3 and 4

D 2, 3 and 4

Q7

A compound **S** contains four carbon atoms.
It gives negative results with the following tests.

Test 1 : Treating **S** with sodium hydrogencarbonate solution.

Test 2 : Treating **S** with bromine solution.

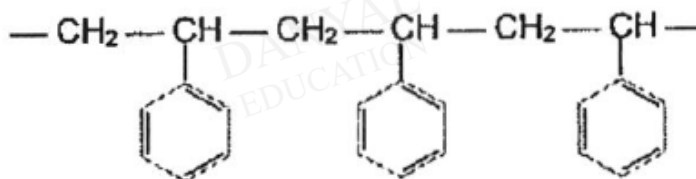
Test 3 : Warming **S** with acidified potassium dichromate (VI) solution.

Which structural formula can **S** be?

- A $\text{CH}_3\text{CH}_2\text{CH}=\text{CH}_2$
- B $\text{CH}_3\text{CH}_2\text{CH}_2\text{CH}_2\text{OH}$
- C $\text{CH}_3\text{CH}_2\text{CH}_2\text{COOH}$
- D $\text{CH}_3\text{CO}_2\text{CH}_2\text{CH}_3$

Q8

The diagram shows the repeating unit of a polymer.



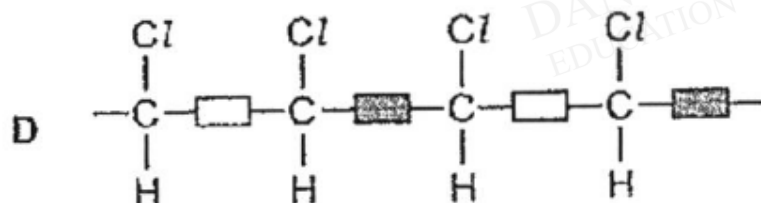
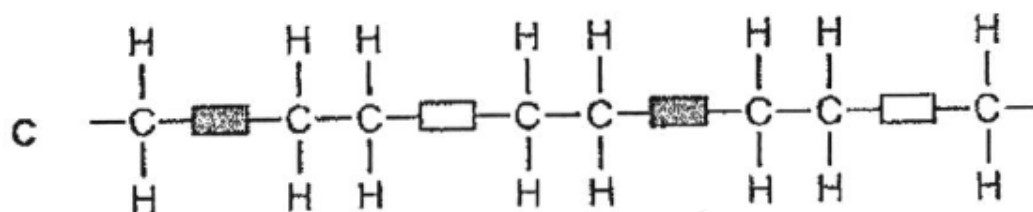
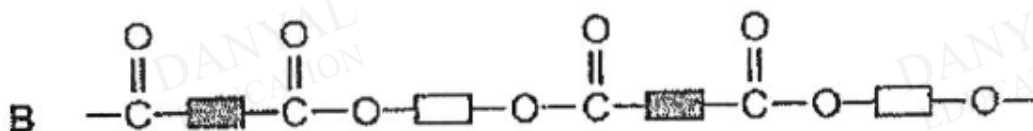
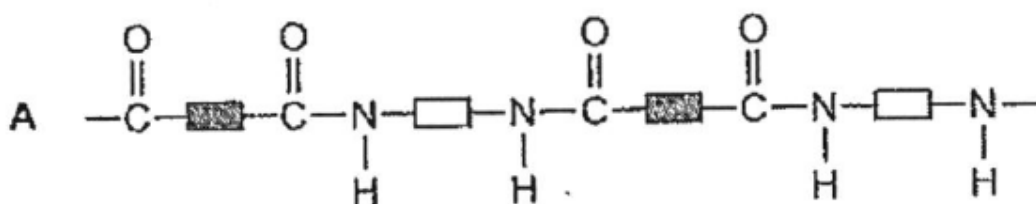
Which of the following statements about the polymer are correct?

1. The monomers are unsaturated.
2. The empirical formula of the monomer is the same as the empirical formula of its polymer.
3. The melting point of the monomer is different from the melting point of its polymer.

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

Q9

Which diagram represents the structure of *nylon*?



Q10

How can alkenes be manufactured?

- A by the addition of hydrogen to unsaturated vegetable oil
- B by the combustion of alkanes
- C by the cracking of hydrocarbons
- D by polymerisation reactions

Answers

Organic Chemistry Test 9.0

Q1 A

Q2 A

Q3 B

Q4 D

Q5 D

Q6 B

Q7 D

Q8 D

Q9 A

Q10 C

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