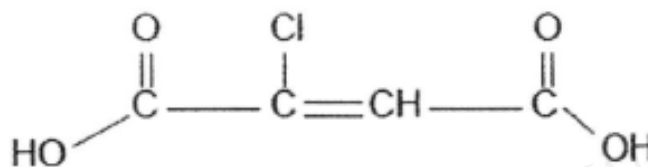


O Level Pure Chemistry MCQs

Organic Chemistry Test 4.0

Q1

The diagram shows the structural formula of chloromaleic acid.



Which statement about chloromaleic acid is correct?

- A It can undergo a substitution reaction with halogens.
- B It decolourises bromine solution in the absence of sunlight.
- C It will react with magnesium to produce a gas that relights a glowing splint.
- D It will turn red litmus paper blue.

Q2

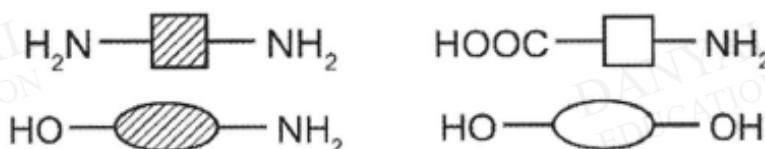
Alcohol X, was fully oxidised to organic compound Y. Reaction of Y with calcium carbonate produced a salt with the chemical formula $(C_2H_5CO_2)_2Ca$.

Which alcohol is used?

- A C_2H_5OH
- B $C_2H_5CH_2OH$
- C $C_2H_5CH_2CH_2OH$
- D $C_2H_5CH(OH)CH_2C_2H_5$

Q3

The diagrams show four monomers.



How many of these monomers could react with the molecule below to form a polymer?



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

Q4

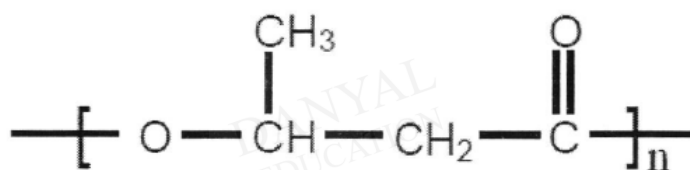
Which substances have the same number of carbon atoms in each molecule?

- I ethyl methanoate
- II ethanoic acid
- III methyl propanoate
- IV butanol

- A I and II
- B I and III
- C II and IV
- D III and IV

Q5

PHB (polyhydroxybutyric acid) is a natural polymer produced by a range of micro-organisms. The structure of this polymer is shown below.



Which statements are true about PHB?

- 1 PHB is a condensation polymer.
- 2 PHB molecule contains many ester groups.
- 3 PHB is made from two different types of unsaturated monomers.

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

Q6

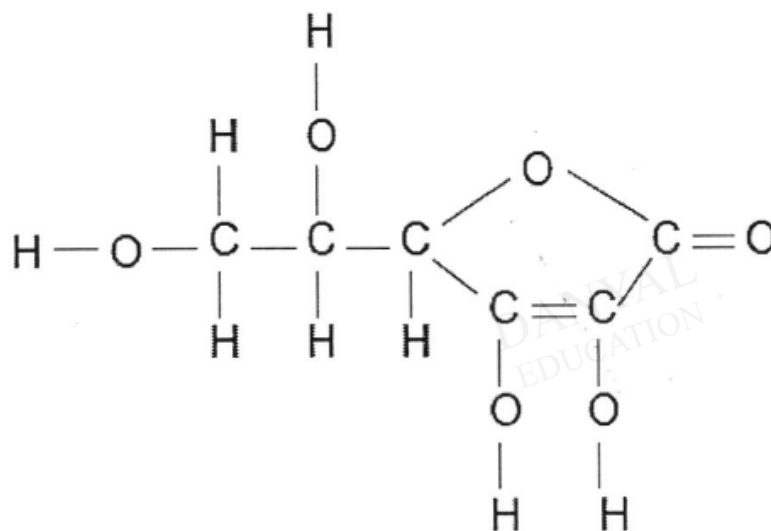
Arachidonic acid is one of the most abundant polyunsaturated fatty acids in the brain. It has a molecular formula of $\text{C}_{19}\text{H}_{31}\text{COOH}$.

How many C=C double bond(s) is/are present in 1 molecule of arachidonic acid?

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

Q7

The structural formula of Vitamin C is shown below.



Which of the following substances does not react with Vitamin C?

- A aqueous bromine
- B acidified potassium manganate(VII)
- C sodium carbonate
- D steam

Q8

What is the total number of shared pair electrons in a propene molecule?

- A 8
- B 9
- C 10
- D 11

Q9

5.0 cm³ of gaseous hydrocarbon reacted with excess oxygen to form 30.0 cm³ of carbon dioxide and 15.0 cm³ of water vapour.

What is the formula of the hydrocarbon?

- A CH₄
- B C₂H₄
- C C₃H₆
- D C₆H₆

Q10

Which statement applies to all three of the compounds ethane, ethene and ethanol?

- A** One mole of each compound contains the same number of hydrogen atoms.
- B** One molecule of each compound contains the same number of carbon atoms.
- C** They are obtained from crude oil.
- D** They are all liquids at room temperature.

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Answers

Organic Chemistry Test 4.0

Q1 B

Q2 B

Q3 C

Q4 D

Q5 A

Q6 D

Q7 C

Q8 B

Q9 D

Q10 B

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