## O Level Pure Chemistry MCQs

## **Organic Chemistry Test 11.0**

Q1

Which pair of structures are isomers of each other?

В A H H H O н н HH ì H-C-C-O-H H-C-C-C-H H-C-C-O-H H-C-C-H1 1 1 1 HH HH HH

D C H HH H HH 1 1 () H HHH H-C-C-C-C-H C = CH-C-C-C-H H-C-C-C-O-H 1 ı H 1 H H H H H ннн

Q2

P is a compound containing 4 carbon atoms. It gives negative results with the following tests.

- I reacting P with aqueous bromine
- If reacting P with acidified potassium manganate(VII) solution
- III reacting P with sodium carbonate solution

Which of the following could be the formula of P?

- A CH<sub>3</sub>CH<sub>2</sub>CO<sub>2</sub>CH<sub>3</sub>
- B CH3CH2CH=CH2
- C CH3CH2CH2CO2H
- D CH3CH2CH2CH2OH

Q3

An active ingredient in "superglue" is shown below:

$$CH_2 = C$$
 $C = N$ 
 $C = N$ 
 $C = N$ 
 $C = N$ 
 $C = N$ 

Which of the following represents the polymer which is formed when the glue sets?

$$\begin{bmatrix}
c = N \\
c = C
\end{bmatrix}$$

E

C

$$\begin{array}{c|c}
c = N \\
c = c + c = cH \\
c = c + c = cH
\end{array}$$

D

Q4

The molecule HOCH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>COOH (molar mass = 104 g/mol) forms a polymer in which the average polymer molecule contains 1000 monomer units.

The approximately molar mass of the polymer, in g/mol, is

- A 68000.
- B 86000.
- C 95000.
- D 104000.

Q5

A margarine made from vegetable oil is described as "polyunsaturated"

What does this type of margarine contain?

- A long chain alkane molecules
- B alkene molecules joined by addition polymerization
- C polymer molecules with C=C bonds
- D polymer molecules with amide linkages

**Q**6

Which of the following about the homologous series of alcohol is NOT true?

- A They can be prepared by similar methods.
- B They can be represented by a general formula.
- C They exhibit a gradual change in physical properties.
- D They have the same empirical formula.

**Q**7

The diagram shows an organic compound.

Which of the following correctly describes the above compound?

- A It forms an aqueous solution with a pH less than 7.
- B It can be neutralized by a salt.
- C It can be reduced by acidified potassium manganate(VII) solution.
- D It reacts with an acid to form an ester.

**Q**8

Which pair of organic compounds can be distinguished in a chemical test by using aqueous bromine?

- A C<sub>2</sub>H<sub>6</sub>, C<sub>3</sub>H<sub>8</sub>
- B C<sub>3</sub>H<sub>8</sub>,C<sub>4</sub>H<sub>8</sub>
- C C4H10, C5H12
- D C8H18, C10H22

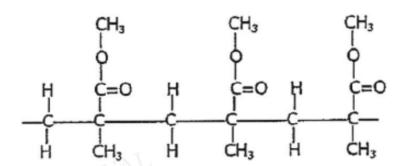
Q9

In which reaction does the relative molecular mass of the organic compound increase?

- A conversion of an ester into an alcohol and an acid by hydrolysis
- B conversion of an alcohol into an alkene by dehydration
- C fermentation of sugar
- D oxidation of an alcohol to an acid

Q10

Poly (methyl methacrylate) is used to make hard contact lenses. Part of its polymer chain is shown below.



Which statement about poly(methyl methacrylate) is correct?

- A It is a condensation polymer.
- B Its monomer is CH<sub>2</sub>=C(CH<sub>3</sub>)CO<sub>2</sub>CH<sub>3</sub>.
- C It is a carboxylic acid.
- D It decolourises bromine water.

## **Answers**

## **Organic Chemistry Test 11.0**

Q1 C

Q2 A

Q3 D

Q4B

Q5 C

Q6 D

Q7 A

Q8 B

Q9 D

Q10 B

DANYAL

DANYAL

DANYAL

DANYAL