



Organic Chemistry Multiple Choice Questions

Set 4 (Chemistry Only)

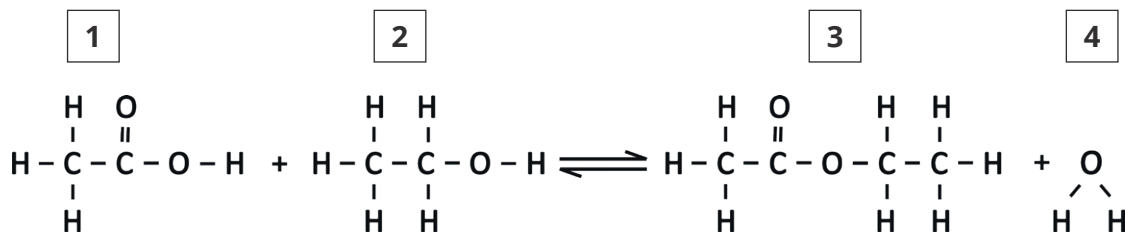
You may use a periodic table to help you answer these questions.

Tick **one** box.

- What is the general formula for the homologous series known as alkenes?
A. C_nH_n ☐
B. C_nH_{2n} ☐
C. $C_{2n}H_n$ ☐
D. C_nH_{2n+2} ☐
- What is responsible for determining the reactions of an organic compound?
A. its functional group ☐
B. its relative molecular mass ☐
C. the number of carbon atoms it contains ☐
D. which fraction of crude oil it is collected from ☐
- Which substance would **not** cause the addition of atoms across the carbon-carbon double bond when it reacts with an alkene?
A. hydrogen ☐
B. iodine ☐
C. oxygen ☐
D. water ☐
- What is the functional group of an alcohol?
A. $C-C$ ☐
B. $C=C$ ☐
C. $-COOH$ ☐
D. $-OH$ ☐
- Wine contains ethanol. If wine is left exposed to the air, an oxidation reaction takes place. What is the organic product of this reaction?
A. ethanoic acid ☐
B. ethanol oxide ☐
C. ethene ☐
D. ethyl ethanoate ☐

Figure 1 shows an equation for a chemical reaction.

Figure 1



6. What is the name of substance **3**?

- A. ethanoic acid ☐
- B. ethanol ☐
- C. ethyl ethanoate ☐
- D. poly(ethene) ☐

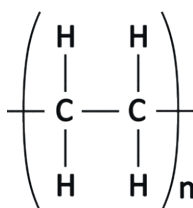
7. If dissolved in water, what would you expect the pH of substance **1** in **Figure 1** to be? **(HT Only)**

- A. 1 ☐
- B. 4 ☐
- C. 7 ☐
- D. 10 ☐

8. What is the name of the monomer which produces the synthetic polymer in **Figure 2**?

Figure 2

- A. ethane ☐
- B. ethanediol ☐
- C. ethanedioic acid ☐
- D. ethene ☐



9. What is the name of the monomer which forms the natural polymer cellulose?

- A. amino acid ☐
- B. ester ☐
- C. glucose ☐
- D. nucleotide ☐

10. Which statement is true about condensation polymerisation? **(HT Only)**

- A. a small molecule is added when the monomers join ☐
- B. a small molecule is lost when the monomers join ☐
- C. the monomers contain the functional group C — C ☐
- D. the repeating unit has the same atoms as the monomers ☐