

Topic 6 Carboxylic acids Homework

1.

Which line in the table correctly describes the trends going from hexanoic acid to butanoic acid?

	Formula mass	Solubility in water
A	increasing	decreasing
B	decreasing	increasing
C	decreasing	decreasing
D	increasing	increasing

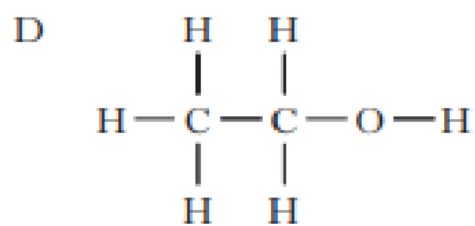
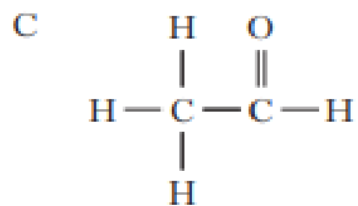
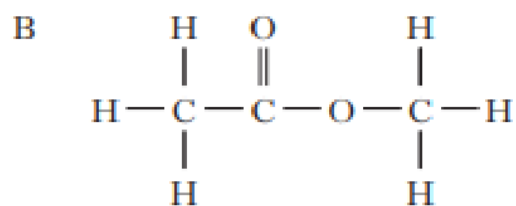
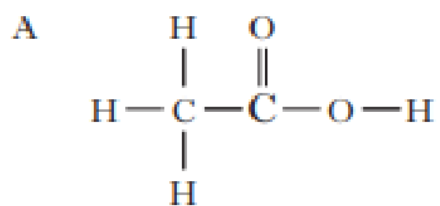
2.

Vinegar is a solution of

- A ethanol
- B methanol
- C ethanoic acid
- D methanoic acid.

3.

Which structural formula represents a carboxylic acid?



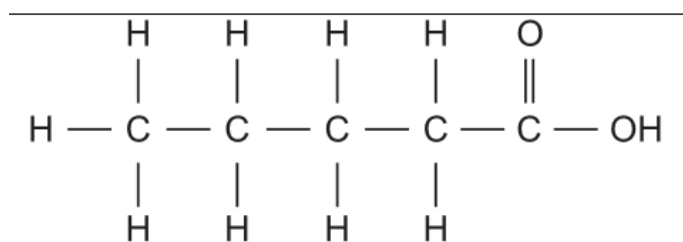
4.

Carboxylic acids are used to make many everyday consumer products. Identify the consumer product NOT made from a carboxylic acid

- A clear plastic bottles
- B aspirin - painkillers
- C batteries
- D PVA glue

5.

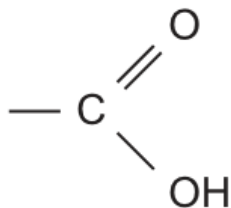
The name of the molecule below is



- A Butan-1-ol
- B Pentan-1-ol
- C Hexanoic acid
- D Pentanoic acid

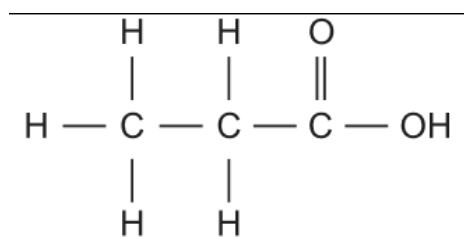
6.

The functional group below is written in shortened structural formula as



- A -COOH
- B -OH
- C -CHOH
- D $\text{-CO}_2\text{H}$

7. The MOLECULAR formula for the molecule below is



- A $\text{CH}_3\text{CH}_2\text{CH}_2\text{COOH}$
- B $\text{C}_3\text{H}_6\text{O}_2$
- C $\text{CH}_3\text{CH}_2\text{COOH}$
- D $\text{C}_3\text{H}_8\text{O}_2$

8 : Which of the following carboxylic acids has the highest boiling point?

You may wish to use your data booklet to help you.

- a) Methanoic acid
 - b) Ethanoic acid
 - c) Propanoic acid
 - d) Butanoic acid
9. Which functional group is present in all carboxylic acids?
- a) Hydroxide (OH^-)
 - b) Carbon to Carbon double bond ($\text{C}=\text{C}$)
 - c) Hydroxyl (OH)
 - d) Carboxyl (COOH)
10. Which type of reaction do carboxylic acids undergo?
- a) Neutralisation
 - b) Combustion
 - c) Hydration
 - d) Addition