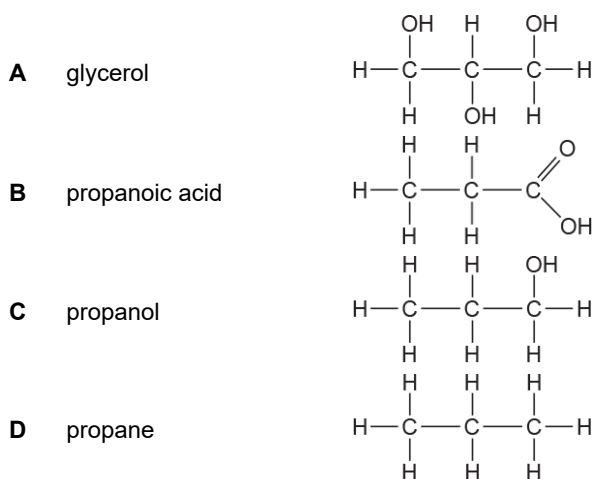


## Biological Molecules - Water

1. Water is known as the universal solvent as it has the ability to dissolve many ionic and covalent compounds due to its polar nature.

Which of the 3-carbon compounds will **not** form hydrogen bonds with water and will therefore **not** dissolve in water?



Your answer

[1]

2. Water has many important roles in living organisms.

i. State the name of the bond that holds water molecules together.

----- [1]

ii. DNA is one of many substances which will dissolve in water. Explain why water is a good solvent.

----- [2]

- iii. A student studied the pack of 'plant food' supplied with some cut flowers. The list of ions included hydrogen and sodium.

Suggest what roles these may play in helping the cut flowers to last longer.

hydrogen

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sodium

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[2]

3. Water has many properties that are essential for living organisms.

Explain how properties relating to the **density** of water contribute to the survival of organisms.

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[3]

4. Outline the properties of water which make it an ideal habitat for an amphibian.

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----- [2]

**END OF QUESTION PAPER**