

2.4 Water

Question Paper

Course	CIE A Level Biology (9700) exams from 2022
Section	2. Biological Molecules
Topic	2.4 Water
Difficulty	Medium

Time allowed: 10

Score: /4

Percentage: /100

CHEMISTRY ONLINE
TUITION

Question 1

Which of the following properties of water are a result of intermolecular forces?

- 1 high surface tension
- 2 good solvent
- 3 cohesive
- 4 high specific heat capacity

A 1 and 2 **B** 1, 2 and 3 **C** 1, 2 and 4 **D** All

[1 mark]

Question 2

Which of the following properties of water stops enzymes in leaves from being denatured during transpiration?

- 1 Water retains a lot of heat.
- 2 Water forms hydrogen bonds with other polar and non-polar molecules.
- 3 A lot of heat is required to evaporate water.
- 4 Water is cohesive.

A 1 only **B** 1 and 2 **C** 2, 3 and 4 **D** 3 only

[1 mark]

Question 3

Water counts for about 70% of the mass of living organisms.

Why is water essential for living organisms?

- A** It is more dense as a solid than a liquid.
- B** It is used in condensation reactions to synthesise macromolecules.
- C** Globular proteins and monosaccharides can dissolve in it.
- D** It only requires a small amount of energy to raise its temperature.

[1 mark]

Question 4

When ice on the surface of a pond melts, minerals rise to the surface.

Which properties of water cause this?

- 1 It is a solvent.
- 2 It forms hydrogen bonds
- 3 It has high specific heat capacity.
- 4 Its greatest density is at 4°C.

A 1 and 2 only **B** 1 and 3 only **C** 1 and 4 only **D** All

[1 mark]