

2.4 Water

Question Paper

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

Time allowed: 10

Score: /4

Percentage: /100

Question 1

Gerridae lacustris, more commonly known as pond skaters, are able to rest on the surface of a pond. Which of the following properties of water enable this?

- A ability to hold a lot of heat
- B ability to form hydrogen bonds
- C less dense when frozen
- D colorless and odorless

[1 mark]

Question 2

Plants transport water against the force of gravity up the xylem to provide leaves and flowers with water. What bonds hold water to the surface of the xylem?

- A cohesive
- B ionic
- C covalent
- D hydrogen

[1 mark]

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Question 3

During winter when temperatures drop below freezing (0°C) fish are able to survive in lakes. Why is this possible?

- A Fish use energy from food to increase their body temperature.
- B The sun warms stones on the lake floor which then heat the water.
- C Fish can produce an enzyme that stops their blood from freezing.
- D Ice on the surface of the lake insulates the water below.

[1 mark]

Question 4

The specific heat capacity of water is the highest of all liquids. Which of the following would be a correct definition of specific heat capacity?

- A The heat required to change one mole of liquid into one mole of gas.
- B The heat required to raise the temperature of 1 kg of liquid by 1°C .
- C The heat required to change one mole of solid into one mole of liquid.
- D The ability of a solid to transfer heat to a liquid.

[1 mark]

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