

2 Biological molecules — Part 2 — Answers

Answers

Work through these after trying the questions yourself.

2.1 One glycerol and three fatty acids.

2.2 A saturated fatty acid has no carbon–carbon double bonds; an unsaturated one has one or more (giving a kink).

2.3 The hydrophilic heads face the water on both sides, while the hydrophobic tails turn inward away from water — so two layers form with the tails in the middle.

2.4 A peptide bond; water is removed.

2.5 The order (sequence) of amino acids in the polypeptide chain.

2.6 It needs a lot of energy to warm up, so its temperature changes slowly — this keeps cells and bodies at a steady temperature.

2.7 A phospholipid has a hydrophilic head *and* hydrophobic tails, so in water the heads face outwards to the water and the tails hide inside — forming a bilayer. A triglyceride is entirely hydrophobic (it has no hydrophilic head), so it cannot arrange this way and just clumps together away from water.