Question		on	Answer	Mark	Guidance
22	(a)		any appropriate bond circled ✓	1	Accept more than one correct circle Circle should include both O atoms and the C between them
	(b)		glycerol ✓	1	
	(c)	(i)	energy source for respiration / respiratory substrate ✓ energy storage ✓ thermal insulation ✓ electrical insulation ✓ buoyancy ✓ idea of: (physical) protection ✓	3 max	DO NOT ALLOW energy for respiration IGNORE for warmth unless linked to insulation e.g protection around kidneys
		(ii)	fewer hydrogens / more double bonds / less saturated, gives lower melting point ✓ (fewer hydrogens / less saturated) more kinked, chain / molecule ✓ (molecules) less uniformly packed together (so lower temperature needed for melting) ✓	2 max	One mark for description (1 st mark point) One mark for explanation. Note mp1 only awarded for clear statement of trend not for full description of data DO NOT ALLOW hydrogen, ions / bonds / molecules
		(d)	they / fatty acids, hydrophobic / described ✓ phospholipid bilayer (formed) ✓ fatty acids / tails, on the inside / pointing inwards ✓	2 max	ALLOW marks in suitably annotated diagram