

Question Number	Answer	Mark
1(a)(i)	A a hydrogen bond ;	(1)

Question Number	Answer	Mark
1(a)(ii)	D a peptide bond ;	(1)

Question Number	Answer	Mark
1(a)(iii)	D glucose ;	(1)

Question Number	Answer	Mark
1(a)(iv)	C glycerol ;	(1)

Question Number	Answer	Additional Guidance	Mark
1(b)	nitrogen ;	IGNORE N if it is the only response	(1)

Question Number	Answer	Additional Guidance	Mark
1(c)	<ol style="list-style-type: none"> glycosidic bond correctly drawn ; molecule of water shown to be produced ; remaining groups around disaccharide drawn correctly ; 	<ol style="list-style-type: none"> IGNORE labelling of bond ACCEPT water named or formula DO NOT ACCEPT two separate glucose molecules NB: check carefully H on C5 	(3)

Question Number	Answer	Additional Guidance	Mark
1(d)	<ol style="list-style-type: none"> idea that water can form {hydrogen bonds / eq} ; <p>and any one from</p> <ol style="list-style-type: none"> water is a solvent / {ions / polar molecules / eq} can {dissolve / be transported / eq} in water reference to cohesion/adhesion idea of hydrogen bonds holding water together as a liquid, so that it can move in mass flow systems suitable ref. to specific heat capacity idea of distribution of thermal energy around body reference to high latent heat of vaporisation ; 	<ol style="list-style-type: none"> ACCEPT water is slightly charged, description of charges on O and /or H IGNORE polar/ dipole as stated in Q stem ACCEPT named polar molecule IGNORE non polar molecules dissolving ACCEPT specific example e.g. surface tension on a pond ACCEPT thermal buffer / needs a lot of energy to change the temperature / eq <p>IGNORE pH buffer</p>	(2)

Question Number	Answer	Mark
2(a)(i)	reference to {chemical / air / gravity / light / eq} ;	(1)

Question Number	Answer	Mark
2(a)(ii)	<ol style="list-style-type: none"> 1. idea of {breakdown / digestion / eq} of style ; 2. (breaks down) protein / pectin / middle lamella ; 3. reference to hydrolysis / eq ; 4. easier for pollen tube to grow / reduced resistance / eq ; 5. supplies {nutrients / named nutrient / energy} for (pollen tube) growth / eq ; 	max (3)

Question Number	Answer	Mark
2(b)	<ol style="list-style-type: none"> 1. photosynthesis ; 2. {component / eq} of {cytoplasm / sap} ; 3. water as a solvent /eq ; 4. water as a transport medium /eq ; 5. involved in thermoregulation / eq ; 6. reference to role in structural support ; 7. reference to involvement in hydrolysis ; 8. reference to turgor changes ; 	max (3)