AQA, OCR, Edexcel

A Level

A Level Biology

Water and Inorganic Ions
Answers

Name:



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Total Marks: /27

Answer	Marks
1.	
a)	
i) Covalent	1 mark
ij covalent	Tillark
ii)- Oxygen has negative charge	
-Hydrogen has positive charge	2 marks
b)	
i) Oxygen	
_	1 mark
ii)	
- Oxygen is more electronegative and	
pulls the shared hydrogen electrons towards it	
-The opposite side of the Hydrogen atom	
becomes slightly (δ) positive	3 marks
-The unshared electrons on the other	3 marks
side of the Oxygen atom become slightly	
(δ) negative.	
(0) 1108111101	
iii)	
-The δ negative Oxygen atom is attracted	
to the δ positive Hydrogen atom on	
another water molecule.	
-Hydrogen bonding occurs between the	2 marks
Hydrogen and Oxygen molecules	
: All halos of a soll of the first	41
iv) It helps water molecules to stick	1 mark
together.	
c)	
i) A liquid in which a solute is dissolved	1 mark
to form a solvent	I mank
2.	
a)	
i)	
- Any named nutrient e.g. glucose	3 marks
- Urea	
-CO ₂	
- O ₂	

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 b) i) Any two from: - Hydrolysis/ specific reaction given - Condensation/ specific reaction given - Photosynthesis - Respiration 	2 marks
ii) -Heat energy is removed when water evaporates from the skin Lowering the internal temperature	2 marks
a) i) Any three from: - Cell wall development - Blood clotting - Muscle contraction - Nerve impulses - Osmosis control - Water balance - Hydrochloric acid formation - ATP - O ₂ carrying in haemoglobin - DNA - RNA	3 marks
ii) Any two from: - Cell wall development - Blood clotting - Muscle contraction - Synapses - Cell signalling/ named pathway.	2 marks
b) i) Potassium & Calcium	2 marks
ii) -Component of chlorophyll/ Required for photosynthesis - Required for proteins and DNA production	2 marks