

General Certificate of Secondary Education

Science Double Award Modular 3468

Biology A 3413

Module 02: Maintenance of Life

Module Test Answer Keys

November 2006 examination series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

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Maintenance of Life: Foundation Tier

Question No.	KEY
One	1 – cytoplasm 2 – chloroplast 3 – vacuole 4 – cell wall
Two	1 – K 2 – L 3 – M 4 – J
Three	1 – ions 2 – carbon dioxide 3 – urea 4 – urine
Four	1 – motor neurone 2 – muscle 3 – receptor 4 – spinal cord
Five	1 – a waxy material 2 – absorbs most light energy 3 – carries sugars to the fruits 4 – where gases enter and leave the leaf
Six	V Z
Seven	shoots growing in the direction of the force of gravity the growth of roots away from water
Eight	8.1 – A, 8.2 – C, 8.3 – C, 8.4 – B
Nine	9.1 - C, 9.2 - B, 9.3 - D, 9.4 - B
Ten	10.1 – C, 10.2 – A, 10.3 – C, 10.4 – A

Maintenance of Life: Higher Tier

Question No.	KEY
One	1 – a waxy material
	2 – absorbs most light energy
	3 – carries sugars to the fruits
	4 – where gases enter and leave the leaf
Two	1 – insulin
	2 – glucose
	3 – glycogen
	4 – glucagon
Three	shoots growing in the direction of the force of gravity
Timee	the growth of roots away from water
	ale grown of 10000 away from water
Four	it can result in an increase in pressure in the cells of a plant
	it is the diffusion of water from a dilute to a more concentrated solution
Five	5.1 – A, 5.2 – C, 5.3 – C, 5.4 – B
Six	6.1 – C, 6.2 – B, 6.3 – D, 6.4 – B
Seven	7.1 – C, 7.2 – A, 7.3 – C, 7.4 – A
Eight	8.1 – C, 8.2 – A, 8.3 – D, 8.4 – A
Nine	9.1 – B, 9.2 – D, 9.3 – D, 9.4 – A
Ten	10.1 – C, 10.2 – C, 10.3, – A, 10.4 – A