



**General Certificate of Secondary Education**

**Science Double Award Modular 3468**

**Biology A 3413**

**Module 02: Maintenance of Life**

*Module Test Answer Keys*

*March 2007 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.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this Mark Scheme are available to download from the AQA Website: [www.aqa.org.uk](http://www.aqa.org.uk)

Copyright © 2007 AQA and its licensors. All rights reserved.

#### COPYRIGHT

AQA retains the copyright on all its publications. However, registered centres for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: AQA cannot give permission to centres to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Set and published by the Assessment and Qualifications Alliance.

**Maintenance of Life : Foundation Tier**

<b>Question No.</b>	<b>KEY</b>
One	1 – cell wall 2 – permanent vacuole 3 – cytoplasm 4 – nucleus
Two	1 – nose 2 – skin 3 – ear 4 – eye
Three	1 – produces sweat 2 – where urine is stored 3 – where urea is produced 4 – gets rid of carbon dioxide
Four	1 – nitrate 2 – the force of gravity 3 – light 4 – hormone
Five	1 – reduces water loss from the stem 2 – helps to strengthen the stem 3 – transports sugars to the growing regions 4 – transports water up the stem
Six	ciliary muscles suspensory ligaments
Seven	increased reaction time lack of self-control
Eight	8.1 – A, 8.2 – C, 8.3 – B, 8.4 – B
Nine	9.1 – C, 9.2 – D, 9.3 – B, 9.4 – D
Ten	10.1 – A, 10.2 – B, 10.3 – D, 10.4 – A

**Maintenance of Life : Higher Tier**

<b>Question No.</b>	<b>KEY</b>
One	1 – reduces water loss from the stem 2 – helps to strengthen the stem 3 – transports sugars to the growing regions 4 – transports water up the stem
Two	1 – unequal distribution of hormones in the stem 2 – soil has a very high concentration of ions 3 – soil deficient in nitrate ions 4 – soil deficient in potassium ions
Three	increased reaction time lack of self-control
Four	energy released by respiration large surface area of root hairs
Five	5.1 – A, 5.2 – C, 5.3 – B, 5.4 – B
Six	6.1 – C, 6.2 – D, 6.3 – B, 6.4 – D
Seven	7.1 – A, 7.2 – B, 7.3 – D, 7.4 – A
Eight	8.1 – B, 8.2 – D, 8.3 – C, 8.4 – D
Nine	9.1 – C, 9.2 – A, 9.3 – A, 9.4 – D
Ten	10.1 – A, 10.2 – C, 10.3 – D, 10.4 – A