

**MARK SCHEME for the May/June 2011 question paper
for the guidance of teachers**

5038 AGRICULTURE

5038/03

Paper 3 (Practical), maximum raw mark 30

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

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1 (a) (i)

AS1	red/orange	pH 4.5
AS2	green	pH 7.0
AS3	blue/green	pH 8.0

(= or- 1 pH from the pH given on supervisors report) [6]

(ii) **AS3**
pH of 8.0/is alkaline/reference to colour/more nutrients. OWTE [2]

(b) (i) **AS4** gritty, rough OWTE [1]
AS5 smooth, sticky OWTE [1]
AS6 dark parts of plants distinguishable OWTE [1]

(ii)

heavy clay soil	AS5
dark rich organic soil	AS6
coarse gritty sandy soil	AS4

All correct [1]

[Total: 12]

2 (a)

AS7	litmus turns blue
AS8	no change

[2]

(b)

AS7	clear or powder at bottom
AS8	fizzes/ turns limewater milky

[2]

(c)

AS1	Test 1 conclusions	Test 2 conclusions
AS2	ammonium ions present	carbonate ions not present
AS3	no ammonium present	carbonate ions present

[4]

[Total: 8]

3 (a) wind exposed stigma to trap pollen, or feathery anthers to disperse pollen. OWTE [2]

(b) sepal, petal, stamen, anther, stigma or filament correctly labelled [4]

(c) labelled ovary and ovule [2]

scale [1]

clear well drawn diagram [1]

[Total: 10]