

**MARK SCHEME for the May/June 2010 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)

sample	describe how the soil feels when rubbed between your moist finger and thumb	tick the sample that would drain most freely	tick the sample that contains the most clay
AS1	gritty, rough, sharp, coarse	✓	
AS2	spongy, sticky, smooth, soft/moist		✓

one mark for each correct response (some amendment if centre described the soil differently on the centre supervisor's report) [Max 4]

(ii) **AS2** retains water/provides stability, OWTTE [Max 1]

(b) each correctly labelled axis = 1 mark [Max 2]
each bar accurately drawn to show the recorded results = 1 mark [Max 2]

(c) (i)

AS1	red/orange	pH 4.0–5.0
AS2	blue or blue/green	pH 8.0

(all + or – the centre sample given on supervisor's report)
1 mark for each correct box [Max 4]

(ii) adding organic matter/adding lime or alkali material, any combination of lime or basic fertiliser
1 mark for reason and 1 mark for explanation [Max 2]

[Total: 15]

2 (a) (i)

AS3	blue/purple	none/ X
AS4	green	a little, OWTTE
AS5	red/orange brick red	glucose present, OWTTE

1 mark for each correct colour
1 mark for (**X**) 1 mark for indication that AS4 and AS5 contain glucose [Max 5]

(ii) **AS5** [Max 1]

(b)

AS6	blue-black or black	yes
AS7	yellow/orange	no

1 mark for each correct box [Max 4]

[Total: 10]

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3 (a) terminal/washer/electrode/gap/contact terminal/thread/nut/porcelain top
any three (3) OR
two accurate labels (2)
and a clear diagram (1) [Max 3]

(b) too small/too big gap/cracked electrode/cracked insulator/
wet/oiled/dirty/sooty, not fitted tightly
accept poor connection/OWTTE
any 2 [2]

[Total: 5]