

**MARK SCHEME for the October/November 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.

- CIE will not enter into discussions or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the October/November 2010 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



<b>Page 2</b>	<b>Mark Scheme: Teachers' version</b>	<b>Syllabus</b>	<b>Paper</b>
	<b>GCE O LEVEL – October/November 2010</b>	<b>5038</b>	<b>03</b>

1 (a) any suitable part include stem/leaf node/flower/seed/seed pod/root/roothair/main root  
 1 mark for each suitable and correctly labelled part (max 3)  
 1 mark for an interpretable diagram  
 1 mark for a clear diagram with easily identifiable parts (max 2) [5]

(b) adventitious root, leaf, rhizome 1 mark each  
 clear drawing/diagram 1 mark  
 interpretable diagram 1 mark (max 2) [5]

(c) asexual reproduction/possible to spread underground/branches out/each piece grows if broken off (max 2) [2]

**[Total: 12]**

2 (a) correctly entered data 1 mark  
 valid data 1 mark [2]

(b) correctly drawn and labelled axes 1 mark each (max 2)  
 columns drawn accurately as per results table for **AS3** and **AS4** 1 mark each (max 2) [4]

(c) **AS3** drains freely – lots of sand/coarse large particles/space for water movement/more air space allows water movement  
 any TWO [2]

**AS4** clay – large surface area/small particles fit together closely/clay does not drain freely/humus soaks up water/  
 little sand to aid drainage OWTE  
 any TWO [2]

**[Total 10]**

3 (a) **AS5** thin liquid/like water fastest/free  
**AS6** steady flow OWTE steady/moderate flow  
**AS7** thick/slow moving slow/little movement  
 viscose/dense  
 1 mark for each correct observation [max 6]

(b) **AS7** heavy or thick/more inclined to stick OWTE  
 1 mark for sample  
 1 mark for suitable reason [2]

**[Total: 8]**