

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use Total Task 1



General Certificate of Education
Advanced Level Examination
June 2010

Biology

BIO6X/PM1

Unit 6X A2 Externally Marked Practical Assignment
Task Sheet 1

To be completed before Task Sheet 2.

For submission by 15 May 2010

For this paper you must have:

- a ruler with millimetre measurements
- a calculator.

Task 1

You will measure the size of lettuce seedlings.

Materials

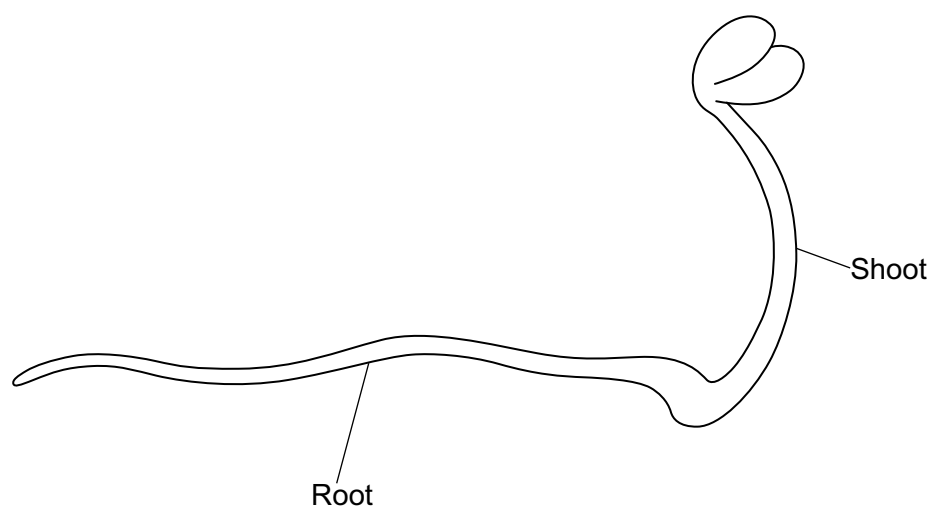
You are provided with the following

- lettuce seedlings that are three days old
- ruler with millimetre measurements
- pair of forceps
- method of generating random numbers

You may ask for any other apparatus you need.

Outline method

Read these instructions carefully before you start your investigation.



Select and measure **one** aspect of size for 10 seedlings.

You should select seedlings to measure in a way that ensures your results are reliable and representative.

Recording your results

You should record your data in this table. Put an appropriate heading in the second column.

You will complete the third column later in Question 4.

Seedling number		Running mean
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Turn over ►

Questions on Task 1

Answer **all** questions in the spaces provided.

1 Which aspect of size did you choose to measure? Explain why.

.....
.....
(1 mark)

2 (a) Describe how you selected the seedlings you measured.

.....
.....
.....
.....
(2 marks)

2 (b) Explain the reason for selecting the seedlings in this way.

.....
.....
(1 mark)

3 Give **one** problem that you encountered in obtaining accurate measurements. Explain how you overcame this problem.

.....
.....
.....
.....
(2 marks)

4 The running mean is a mean which is recalculated each time you have taken a measurement.

4 (a) Use the values you have collected to calculate the running mean for your data. Record these data in the third column of the table on page 3. (1 mark)

4 (b) A representative sample is required. This can be achieved by determination of the running mean of a sample. Suggest how.

.....
.....

(1 mark)

8

END OF TASK 1

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