

**GENERAL CERTIFICATE OF SECONDARY EDUCATION
 ENVIRONMENTAL AND LAND-BASED SCIENCE**

Amenity Horticulture (Foundation Tier)

WEDNESDAY 18 JUNE 2008

Afternoon
 Time: 45 minutes

Candidates answer on the question paper
Additional materials (enclosed): None

Additional materials (required):
 Calculator
 Pencil
 Ruler (cm/mm)



Candidate Forename

Candidate Surname

Centre Number

Candidate Number

INSTRUCTIONS TO CANDIDATES

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided.
- There are no separate marks for the quality of written communication, but make sure that your answers are written in clear and well-structured English.

INFORMATION FOR CANDIDATES

- The number of marks for each question is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **36**.

FOR EXAMINER'S USE		
		Mark
TOTAL	36	

This document consists of **14** printed pages and **2** blank pages.

Answer **all** the questions.

1 Bedding plants are nice to look at in the spring.

This student is planting some out in the autumn.



K Crafer / © OCR

(a) Which **one** of the following plants is suitable for putting in the container in autumn to flower in the spring?

- A Dahlia
- B Geranium (*Pelargonium*)
- C Gladiolus
- D winter pansy

Answer **A, B, C or D**[1]

(b) The student is replacing the old compost in the container with fresh potting compost.

Suggest why.

- A does not need sieving
- B free from pests, diseases and weeds
- C packs are easy to lift
- D pre-watering is not required

Answer **A, B, C or D**[1]

- 2 There are five stages in growing a new lawn from seed.

The stages below are in the **wrong** order.

- A Add fertiliser to the soil.
- B Dig over the plot to remove stones and perennial weeds.
- C Firm the soil to get rid of any air pockets.
- D Rake the soil to produce a fine tilth (soil surface).
- E Sow seed thinly and rake.

Put the stages in the **correct** order.

One stage has already been completed for you.

1

2

3

4

5

[3]

3 Electric trimmers are used to cut privet hedges.

Which of the following is a **danger** of using an electric hedge trimmer?

- A disconnecting the power supply before maintenance
- B using a circuit breaker (RCD) unit with the hedge trimmer
- C using a cordless trimmer
- D using the hedge trimmer in the rain

Answer **A, B, C** or **D**[1]

4 The following list shows the possible advantages of growing plants in glasshouses.

Which **two** are correct?

- A better pollination
- B earlier flowering
- C helps to harden off plants
- D improved flower quality
- E improved disease resistance
- F larger flower size
- G requires less nutrients
- H requires less watering

Choose **two** answers from **A, B, C, D, E, F, G** and **H** [2]

5 The photograph shows a flower bed.



K Crafer / © OCR

Heathers are a popular choice for flower beds because they are:

- evergreen
- perennial.

For each of these features, explain **one** advantage to the gardener.

evergreen

perennial[2]

6 *Lobelia* plants have very small seeds and it is difficult to space the seeds out when they are being sown.

Suggest **one** way which can be used to spread them out correctly.

.....
.....[1]

7 The picture shows summer plants growing in pots.



K Crafer / © OCR

Name **three** routine tasks that need to be carried out to keep these plants flowering throughout the summer.

1

.....

2

.....

3

.....[3]

8 Grass in different situations is best cut by different types of lawn mower.

type of lawn mower

wheeled rotary

hover

cylinder

source of power

petrol

mains electricity

Choose the most appropriate **type of lawn mower** and **source of power** from the list above, for each of the following situations.

a large area of roughly cut grass on a steep slope

type of lawn mower

source of power

a small, fine, level lawn behind a semi-detached house

type of lawn mower

source of power

grass verges in a housing estate

type of lawn mower

source of power

[3]

9 The picture shows a student moving soil to create a new flower bed.



K Crafer / © OCR

Describe **two** of the hazards that need to be considered when carrying out this type of work.

- 1
- 2 [2]

10 Gardeners can raise plants from seed.

Thinning and pricking out are two stages in growing plants from seed.

Describe what is meant by:

- thinning
-
- pricking out
- [2]

11 It is important that a greenhouse is sited correctly so that it can:

- extend the growing season for plants
- protect the plants against cold weather.

Where should a greenhouse be sited to achieve these aims?

Give reasons for your answers.

.....

.....

.....

.....[2]

12 A student is told to clean his tools after work on a flower bed.



K Crafer / © OCR

Give **one** reason why this instruction is given.

.....

.....[1]

13 The picture shows a plant in a garden centre.



K Crafer / © OCR

It is infected with a disease.

What do you advise the plant manager to do in this situation?

.....
.....[1]

14 Plants grown in tubs sometimes need to be re-potted into larger containers.

Describe the signs that a plant needs re-potting.

.....
.....
.....[2]

15 This photograph was taken in the autumn.

It shows a student doing some routine maintenance on shrubs in a flower bed.



K Crafer / © OCR

Describe routine jobs the student carries out on shrubs in a flower bed in autumn.

.....

.....

.....

.....

.....[3]

16 The table shows information about different types of greenhouse glazing.

type of glazing	light transmission	risk of breakage	rate of heat loss	expected life	cost
glass	94%	high	high	long	medium
single-walled polycarbonate	96%	low	high	medium	medium
twin-walled polycarbonate	85%	low	medium	medium	high
polythene	80%	medium	high	short	low
fibreglass	85%	low	medium	medium	high

(a) Using the information in the table, state **two** reasons why glass is still the most popular glazing choice for greenhouses.

1

.....

2

.....[2]

(b) Twin-walled polycarbonate is being increasingly used, particularly for the roofs of large structures.

From the information in the table, suggest **one** reason for the use of twin-walled polycarbonate in the roofs of large structures.

.....

.....[1]

- (c) The table includes information about single-walled and twin-walled polycarbonate glazing. Manufacturers are interested in evaluating a **triple-walled** polycarbonate material. Predict its performance under the following headings by ticking (✓) the correct box in each case.

light transmission

93%	
85%	
78%	

rate of heat loss

high	
medium	
low	

expected life

high	
medium	
low	

[2]

- 17 Garden centres offer a wide range of different fertilisers (plant feeds) to their customers.

Fertilisers are described as either being 'organic' or 'inorganic'.

What does the term 'organic' mean when applied to fertilisers?

.....
[1]

END OF QUESTION PAPER

14
BLANK PAGE

15
BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (OCR) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

OCR is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.