



## RHS (LEVEL 3) ADVANCED CERTIFICATE IN HORTICULTURE 2005

### MODULE C - PRACTICAL EXAMINATION

**IMPORTANT:**

- i) Duration of this Paper is **3 hours**; (additional 'travel time' will be available).
- ii) **ONE** hour will be spent on **EACH** section;
- iii) **ALL** questions are to be attempted;
- iv) **ALL** work is to be labelled with the candidate number.

#### Section A: Horticultural Skills (Potting Shed)

	<b>Marks</b>
<b>Q1</b>	
a) Using the containers and compost provided, sow <b>ONE</b> container of <b>EACH</b> of the seeds labelled <b>A</b> and <b>B</b> .	
b) Cover half of <b>EACH</b> container as appropriate.	
c) Label the containers appropriately.	<b>20</b>
<b>Q2</b>	
Using the tray insert and compost provided, prick off <b>ONE</b> tray insert of seedlings labelled <b>C</b> .	<b>10</b>
<b>Q3</b>	
Using the pots and compost provided, pot up <b>TEN</b> of the rooted cuttings labelled <b>D</b> .	<b>10</b>
<b>Q4</b>	
Take, prepare and insert <b>TEN</b> cuttings of <b>EACH</b> of specimens <b>E</b> and <b>F</b> into the containers and rooting media provided. (Retain unused propagation material).	<b>20</b>

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## Section B: Horticultural Skills (Plot work)

Basic, but not final cultivations have been carried out.

		Marks
<b>Q5</b>	a) Carry out initial cultivations of an area of the plot at least 2.5m x 2m for sowing with grass seed.	5
	b) On the prepared site, set out a square with sides of 2m using the equipment provided.	15
	c) Carry out final cultivations and sow the seed labelled <b>G</b> at the rate of 35g/m <sup>2</sup> .	10
<b>Q6</b>	a) Across the width of the plot, prepare the soil in readiness for planting the seed potatoes labelled <b>H</b> , with <b>EACH</b> row to be spaced 60cm apart.	5
	b) Select and plant out <b>TWO</b> rows of the first early potatoes labelled <b>H</b> at appropriate spacings, cover half of <b>ONE</b> row only.	10
<b>Q7</b>	a) Across the width of the plot, prepare the soil in readiness for planting <b>TWO</b> rows of the herbaceous transplants labelled <b>I</b> .	5
	b) Plant <b>TWO</b> rows of the herbaceous plants provided labelled <b>I</b> across the width of the plot at appropriate spacings, with rows 30cm apart.	10

## Section C: Practical Science (Plant, Pest, Disease and Disorder Identification)

<b>Q8</b>	Using a simple test, identify the texture of soil samples <b>J</b> and <b>K</b> .	5
<b>Q9</b>	Determine the pH of the soil sample <b>L</b> using the kit provided.	5
<b>Q10</b>	On the proforma provided, identify <b>ONLY 30</b> of the plant specimens labelled <b>35</b> , giving in <b>EACH</b> case the generic name and specific epithet.	30
<b>Q11</b>	On the proforma provided, identify the pest, disease or disorder affecting <b>ONE</b> of the specimens labelled <b>36 - 45</b> , giving in <b>EACH</b> case the common name.	10
<b>Q12</b>	On the proforma provided, identify the weeds and seeds labelled <b>46 - 55</b> , in <b>EACH</b> case the generic name and specific epithet.	10



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### MODULE C - PRACTICAL EXAMINATION

#### EXAMINERS REPORT

Candidates Registered	472		Total Candidates Passed		
Candidates Entered	347	73.51%	Passed with Commendation	138	39.77%
Candidates Absent	91	19.30%	Passed	169	48.70%
Candidates Deferred	26	5.50%	Failed	40	11.53%
Candidates Withdrawn	8	1.69%			

#### General Comments

Most examiners commented on the apparent lack of instruction and opportunities for practice and hence limited ability of the candidates.

#### Section A: Horticultural Skills (Potting Shed)

Many candidates showed poor organisation of their work-stations which resulted in more time being spent on operations than necessary, thus increasing pressure on themselves to complete on time.

- Q1**
- Using the containers and compost provided, sow **ONE** container of **EACH** of the seeds labelled **A** and **B**.
  - Cover half of **EACH** container as appropriate.
  - Label the containers appropriately.

Candidates gaining the highest marks were those who

- ∞ filled and consolidated the trays uniformly, including the corners;
- ∞ struck-off the compost to ensure a level surface before firming;
- ∞ provided a fine surface onto which to sow fine seed;
- ∞ mixed the fine seed with sand and distributed it evenly over the whole of the sowing surface;
- ∞ left the fine seed uncovered;
- ∞ sowed the coarse seed evenly across the whole of the sowing surface;
- ∞ covered the coarse seed to an even depth.

**Q2** Using the tray insert and compost provided, prick off **ONE** tray insert of the seedlings labelled **C**.

The areas identified by the examiners as being evidence of good practice were:

- ∞ the appropriate arrangement of the working area and height of working;
- ∞ the grading of the seedlings and rejection of unsuitable ones during pricking off;
- ∞ handling the seedlings gently by the cotyledons;
- ∞ the firming of the seedlings into the centres of the cells;
- ∞ the minimising of root and leaf damage during the pricking off process;

**Q3** Using the pots and compost provided, pot up **TEN** of the rooted cuttings labelled **D**.

Examiners expected to see that candidates:

- ∞ laid their workstations out effectively and did not take pots and cuttings to the central supply of compost;
- ∞ part-filled the pot to an appropriate depth;
- ∞ held the rooted cutting at the right height over the centre of the pot;
- ∞ in-filled with compost evenly around the cutting;
- ∞ added compost to level with pot rim;
- ∞ tapped pot to consolidate.

**Q4** Take, prepare and insert **TEN** cuttings of **EACH** of specimens **E** and **F** into the containers and rooting media provided. (Retain unused propagation material).

Candidates gaining the highest marks were those who:

- ∞ selected the correct form of propagation for the specimen provided, ie root cuttings from specimen **E** and leaf bud cuttings from the Hedera, (specimen **F**);
- ∞ selected appropriate material without destroying or damaging the stock plant;
- ∞ graded their cutting material;
- ∞ made clean cuts in the right places and at the appropriate angles;
- ∞ inserted the propagules into appropriate compost and containers and correct depth and spacing;
- ∞ firmed the propagule into the compost.

## Section B: Horticultural Skills (Plot work)

**Basic, but not final cultivations have been carried out.**

Most examiners commented on the poor organisation and lack of thought by candidates when setting out their plots. They also commented on the 'fussiness' of many operations and the fact that few candidates appeared to be capable when raking, forking or inserting garden lines. These factors, together with frequent repetition of the same cultivations in the same area combined to cause candidates to take much longer than they should for some very basic operations using hand tools. The three questions were set to ensure that all operations could be accommodated within the 4 x 3m plot, although some thought needed to be given as to the arrangement and location of each question on the plot.

- Q5**
- Carry out initial cultivations of an area of the plot at least 2.5m x 2m for sowing with grass seed.
  - On the prepared site, set out a square with sides of 2m using the equipment provided.
  - Carry out final cultivations and sow the seed labelled **G** at the rate of 35g/m<sup>2</sup>.

Examiners were looking to see that candidates:

- ∞ sequenced their operations appropriately;
- ∞ were capable in their use of hand tools;
- ∞ firmed the area appropriately and evenly;
- ∞ were able to transfer their theoretical knowledge of 3/4/5 triangles for right angles onto the plot in marking out a rectangle;
- ∞ could calculate and weigh out correct quantities of grass seed;
- ∞ were able to use an acceptable technique to sow grass seed evenly at the correct density
- ∞ tidied the working area when finished.

- Q6**
- Across the width of the plot, prepare the soil in readiness for planting the seed potatoes labelled **H**, with **EACH** row to be spaced 60cm apart.
  - Select and plant out **TWO** rows of the first early potatoes labelled **H** at appropriate spacings, cover half of **ONE** row only.

Candidates gaining highest marks were those who:

- ∞ prepared the ground appropriately;
- ∞ set out two parallel rows across the width (shorter side) of the plot, with taut lines;
- ∞ took out drills of appropriate depth (approx 10-15cm) at 60cm spacings;
- ∞ inserted the seed potatoes eyes uppermost and at spacings of approx 30cm;
- ∞ covered only half of one row, ridging soil above row;
- ∞ tidied the working area when finished.

- Q7**
- a) Across the width of the plot, prepare the soil in readiness for planting **TWO** rows of the herbaceous transplants labelled **I**.
  - b) Plant **TWO** rows of the herbaceous plants provided labelled **I** across the width of the plot at appropriate spacings, with rows 30cm apart.

Candidates gaining highest marks were those who:

- ∞ prepared the ground appropriately;
- ∞ set out two parallel rows across the width (shorter side) of the plot, with taut lines;
- ∞ graded the plants as appropriate and protected where necessary against the climate prior to transplanting;
- ∞ used their trowel effectively and efficiently to take out holes of correct depth for the transplants, along the line;
- ∞ inserted **two** rows of transplants at appropriate spacings and depth and firmed them in;
- ∞ tidied the working area when finished.

## Section C: Practical Science (Plant, Pest, Disease and Disorder Identification)

**Q8** Using a simple test, identify the texture of soil samples **J** and **K**.

Although a very basic horticultural technique, as last year, this question was not as well answered as could have been expected. Marks were awarded for appropriate close answers but there was a degree of confusion between the characteristics of silty and clay soils. This is clearly an area of laboratory (and field) work that would benefit from more practice.

**Q9** Determine the pH of the soil sample **L** using the kit provided.

High marks were achieved by most candidates in this question. More practice in matching testing requirements to soil texture would improve marks even further.

**Q10** On the proforma provided, identify **ONLY 30** of the plant specimens labelled **1 - 35**, giving in **EACH** case the generic name and specific epithet.

Most candidates achieved high marks, clearly stating generic and specific epithet of all or most of the 30 specimens selected.

**Q11** On the proforma provided, identify the pest, disease or disorder affecting **EACH** of the specimens labelled **36 - 45**, giving in **EACH** case the common name.

Most candidates achieved high marks, being able to name the pests, diseases or disorders that were presented.

**Q12** On the proforma provided, identify the weeds and seeds labelled **46 - 55**, giving in **EACH** case the generic name and specific epithet.

Most candidates achieved high marks, being able to give generic and specific epithet of all of the specimens presented.

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