



**RHS LEVEL 3 DIPLOMA IN HORTICULTURE  
JULY 2007**

**PRACTICAL EXAMINATION – MODULE H**

**PAPER 1**

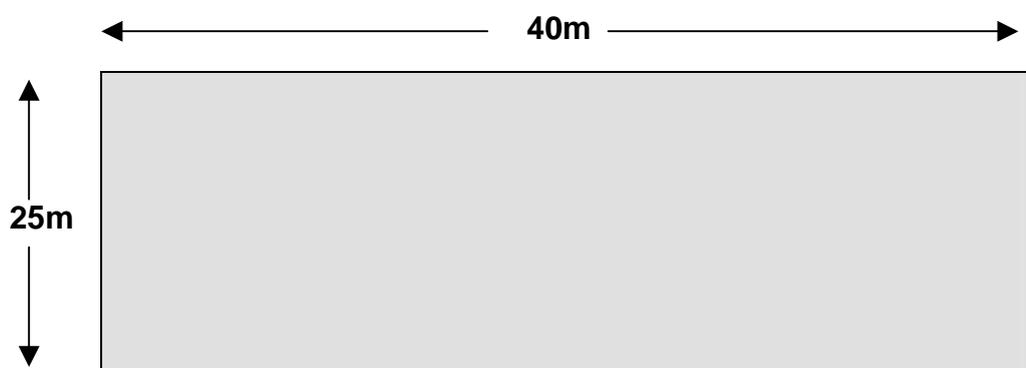
**IMPORTANT:**

- i) Duration of this paper is **3 hours**.
- ii) **ALL** questions are to be attempted.
- iii) **ALL** work to be labelled with the candidate's number.

	<b>Marks</b>
<b>Q1</b> Selecting a suitable container, sow <b>ONE</b> container for <b>EACH</b> of the seeds labelled <b>A, B</b> and <b>C</b> and where appropriate leave half of the seed sown uncovered.	<b>20</b>
<b>Q2</b> Pot-on <b>FIVE</b> specimens labelled <b>D</b> into appropriate compost, selecting a suitable container for <b>EACH</b> .	<b>20</b>
<b>Q3</b> Select suitable plants from the range labelled <b>E</b> and prepare a container for summer display.	<b>20</b>
<b>Q4</b> Chip bud the scion wood labelled <b>F</b> onto the rootstocks provided.	<b>30</b>
<b>Q5</b> Plant, stake and tie the tree provided.	<b>30</b>

Please turn over/.....

	<b>Marks</b>
<b>Q6</b> Discuss with the examiner the area indicated to you.	<b>20</b>
<b>Q7</b> Prepare and insert <b>EIGHT</b> cuttings from <b>EACH</b> of the material labelled <b>F</b> , <b>G</b> and <b>H</b> into an appropriate container and suitable rooting media.	<b>20</b>
<b>Q8</b> For the area indicated:	
a) Calculate the area shown.	<b>2</b>
b) Calculate how many 500mm x 500mm slabs will be required to be placed on the outside perimeter edge of the area.	<b>6</b>
c) Calculate the amount of fertilizer required if applied at a rate of 350kg/ha to the area.	<b>6</b>
d) Calculate the number of plants required if planted at 150mm centres.	<b>6</b>



**1 hectare = 10,000m<sup>2</sup>**

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JULY 2007**

**PRACTICAL EXAMINATION – MODULE H**

**PAPER 2**

**IMPORTANT:**

- i) Duration of this paper is **3 hours**.
- ii) **ALL** questions are to be attempted.
- iii) **ALL** work to be labelled with the candidate's number.

	<b>Marks</b>
<b>Q9</b> Discuss with the examiner the safe operation of the machinery/equipment indicated.	<b>20</b>
<b>Q10</b> On the pro-forma provided: <ul style="list-style-type: none"><li>a) identify the plant, pests, diseases or disorders numbered 1 – 15.</li><li>b) Identify a suitable control strategy to include chemical, cultural and biological, as appropriate.</li></ul>	<b>30</b>
<b>Q11</b> On the pro-forma provided, identify the plant specimens labelled 16 – 40, giving in <b>EACH</b> case the generic name, specific epithet and where applicable the cultural name.	<b>50</b>
<b>Q12</b> On the pro-forma provided, identify the substances numbered 41 – 45.	<b>10</b>

**Please turn over/.....**

	<b>Marks</b>
<b>Q13</b> On the pro-forma provided, identify the seeds numbered 46 – 55.	<b>20</b>
<b>Q14</b> Discuss with the examiner the selection of equipment numbered 56 – 60.	<b>10</b>
<b>Q15</b> Discuss with the examiner the range of hand-tools numbered 61 – 70 and demonstrate their use as required.	<b>20</b>
<b>Q16</b> On the pro-forma provided, in the capacity of a professional horticulturist, carry out a risk assessment of the area indicated and identify the safe working practices for the identified risks.	<b>20</b>



## RHS LEVEL 3 DIPLOMA IN HORTICULTURE JULY 2007

### PRACTICAL EXAMINATION – MODULE H

<b>Candidates Registered</b>	<b>116</b>		<b>Total Candidates Passed</b>		
Candidates Entered	102	87.9%	Passed with Commendation	31	30.39%
Candidates Absent	12	10.3%	Passed	58	56.86%
Candidates Deferred	2	1.73%	Failed	13	12.74%
Candidates Withdrawn	0	0			

### IMPORTANT NOTES FOR CANDIDATES AND TUTORS

This examination report has been produced to assist tutors and candidates preparing for the RHS Diploma practical examination. The report has two components:

1. The issues relating to the question – these are issues which had a common occurrence – Sparsholt College, RHS Wisley Gardens and Reaseheath College.

The issues were major points which would have affected the future growth of plants or will relate to the successful completion of a practical task.

Examiners will accept appropriate methods of completing tasks on the condition that the following points are carefully considered:

- Was the task completed safely?
- Was the task completed efficiently in respect to?
  - use of resources;
  - time to complete the task;
  - the method used is appropriate;
  - the method relates to modern horticulture.

2. General comment – an overall comment on the performance of candidates with each question.

Finally – in order to assist tutors and candidates, this report lists the issues to consider for the examination. The Senior examiner and associated examination team have experienced excellent work produced by candidates who clearly have been very well prepared for this practical examination.

**Q1** Selecting a suitable container, sow **ONE** container for **EACH** of the seeds labelled **A**, **B** and **C** and where appropriate leave half of the seed sown uncovered.

The issues relating to this question were:

- The filling of the containers (standard seed tray) produced some variable results. The main weakness was poor firming of the edges of the container, ie insufficient firming on the corners.
- The standard of seed sowing was good for the majority of candidates. Common errors were over-sowing and deep covering with medium and coarse seeds. The coarse seed in many cases was not sown at the correct depth – too shallow.

#### **General Comment**

- Preparation of the container for seed sowing was a weakness identified with many candidates. What was required to gain high marks is the selection of an appropriate compost mix, uniformly distributed and consolidated within the container.
- Seed sowing skills in most cases were of a good standard, displaying even distribution within the container with little/no wastage.
- Several candidates appeared not to read fully the question and failed to cover half the seed sown (where appropriate) with an acceptable covering.

**Q2** Pot–on **FIVE** specimens labelled **D** into appropriate compost, selecting a suitable container for **EACH**.

The issues in respect to this question were:

- Using over-sized containers to pot-on plants.
- Not removing dead/damaged foliage/stems.
- Too much interference with the root system prior to potting. The teasing out of lower roots is acceptable, but very vigorous movement of higher roots is not recommended.
- No leaving space for watering.

#### **General comment**

Candidates tended to rush this task, which produced some variable quality results.

**Q3** Select suitable plants from the range labelled **E** and prepare a container for summer display.

The issues relating to this question were:

- Overcrowding of the container with plants;
- Lack of colour theme for the container;
- In some designs, the use of a central dot plant would have assisted the display.

**General comment**

The majority of candidates produced work of a high standard.

**Q4** Chip bud the scion wood labelled **F** onto the rootstocks provided.

The issues relating to this question were:

- Some knives used were not sharp and not of the correct design for this task.
- Cuts to the stock were too deep which resulted in poor cambium availability.
- Poor cutting technique, which in some cases had safety concerns.
- Scion material too long and not fully making contact with the cambium on the stock plants.
- Over use of the polythene tape; many candidates covered the buds three times with tape.

**General comment**

The majority of candidates were not confident with this task. Poor knife skills were a major problem. The use of blunt and inappropriate knives resulted in low marks for this question. Candidates are advised to practice safe use of knives especially when making sloping cuts.

**Q5** Plant, stake and tie the tree provided.

The issues relating to this question were:

- Many candidates produced planting holes, which were too large for the rootball of the tree, ie over double the size of the rootball.
- Staking method. Some candidates drove the stake through the rootball of the container tree.  
It is essential to have a tight tree tie with an even distance between the tree and the stake, ie a tree tie spacer distance.
- Many candidates did not mulch the tree after planting.

### **General comment**

Good examples of tree planting were observed. Firming the soil at planting is essential – it is advisable to do this in stages when filling back the hole during planting.

The depth and size of the hole in the majority of cases was correct, with ameliorant placed in the hole and mixed with the soil prior to planting (especially important with sandy and clay textured soils).

Many candidates were aware of the appropriate angle in which the stake should be positioned in order to support the tree. Mulch has been made available in order that candidates may finish the surrounding areas at the base of the tree to reduce water loss and assist in weed control.

**Q6** Discuss with the examiner the area indicated to you.

The issues relating to this question were:

- Less common plants were poorly identified.
- Poor information provided in respect to pest and diseases (and control) with herbaceous plants.
- The design concept of the site was in many cases missing from candidates answers.

### **General comment**

The majority of candidates were confident with this question and were able to achieve high marks.

**Q7** Prepare and insert **EIGHT** cuttings from **EACH** of the material labelled **F**, **G** and **H** into an appropriate container and suitable rooting media.

The issues relating to this question were:

- Inappropriate propagation method used for the plant material provided.
- Poor use of the plant material provided – cuttings were produced from weak side shoots and the terminal shoot was not used.
- Cuttings were in many cases too long and were not cut to below a node.

### **General comment**

The leaf petiole cuttings were of good standard. Candidates are advised to produce soft tip, semi-ripe and hardwood cutting methods with hardy plants. Candidates used much of the examination time allocation on this question, often leaving very little time for other potting shed questions.

**Q8** For the area indicated:

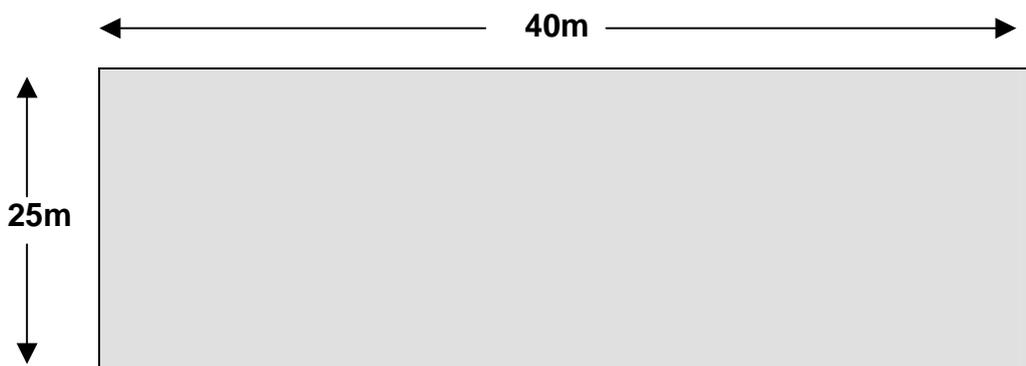
- a) Calculate the area shown.
- b) Calculate how many 500mm x 500mm slabs will be required to be placed on the outside perimeter edge of the area.
- c) Calculate the amount of fertilizer required if applied at a rate of 350kg/ha to the area.
- d) Calculate the number of plants required if planted at 150mm centres.

The issues relating to this question were:

- Lack of notes on working out the answers. Some marks were awarded to answers which were incorrect, but had correct working out methods shown.
- Very complicated methods used to calculate the fertilizer requirement, which made simple errors more difficult to identify.

**General comment**

A high grade profile for this question by the majority of candidates. Candidates however are advised to review their answers, ie possible to estimate quickly the number of plants for the border and therefore, in this question answer of below 100 for the specified area would clearly be incorrect.



**1 hectre = 10,000m<sup>2</sup>**

**Q9** Discuss with the examiner the safe operation of the machinery/equipment indicated.

The issues relating to this question were: (cylinder and hover mowers).

- Many candidates did not remove the HT lead before checking the blades of the mowers.
- The adjustment of a cylinder for cutting efficiency on a mower was poorly understood.
- The majority of candidates did not discuss the importance of recording hours of use for the mowers.
- The adjustment of height of cut with the hover mower was poorly answered by the majority of candidates.
- Many candidates could not identify the physical difference between a 2 and 4-stroke petrol engine.

**General comment**

Candidates appeared to be poorly prepared for this question. A common reply by the candidates was 'I know little about machines'.

Some good theory knowledge but many candidates found relating theory to the machine very difficult.

**Q10** On the pro-forma provided:

- c) identify the plant, pests, diseases or disorders numbered 1 – 15.
- d) Identify a suitable control strategy to include chemical, cultural and biological, as appropriate.

See below

**Q11** On the pro-forma provided, identify the plant specimens labelled 16 – 40, giving in **EACH** case the generic name, specific epithet and where applicable the cultural name.

See below

**Q12** On the pro-forma provided, identify the substances numbered 41 – 45.

See below

**Q13** On the pro-forma provided, identify the seeds numbered 46 – 55.

**General comment**

Some very variable answers especially with the plant identification question. Candidates are advised to allocate time to study a broad range of commonly used plants, which will be used for this examination.

Some very good answers received in respect to pest and disease identification, however control methods were rather limited in detail.

**Q14** Discuss with the examiner the selection of equipment numbered 56 – 60.

The issues relating to this question were:

- Good identification of the equipment by most candidates. However, the use of the equipment was poorly answered by many candidates.
- Why the equipment used in the examination plays an important role in the production/cultivation was poorly understood by some candidates.

**General comment**

The equipment in the examination plays an important role in the production/culture of plants. Candidates are advised to review a range of equipment in preparation for this examination.

**Q15** Discuss with the examiner the range of hand-tools numbered 61 – 70 and demonstrate their use as required.

The issues relating to this question were:

- Many candidates experienced difficulty in achieving a taut line for planting operations.
- Candidates were advised that primary cultivation had been completed yet many candidates chose to dig the soil before planting brassicas.
- Raking techniques were variable – consolidating the soil before raking is essential – this will show hollows, which will require carefully raking to fill followed by further consolidation.

**General comment**

Many candidates found the 10 minutes allocated to this question a challenge. An ordered sequence of preparing the land will reduce time spent in soil cultivations.

Candidates were advised to use the hand-tools to demonstrate their use. The examiner avoided asking too many theory based questions. Candidates in many cases spent time explaining how tools are selected and maintained, which was not required with this practical question.

**Q16** On the pro-forma provided, in the capacity of a professional horticulturist, carry out a risk assessment of the area indicated and identify the safe working practices for the identified risks.

The issues relating to this question were:

- The use of ladders when cutting hedges was poorly understood – there are important regulations governing the safe use of ladders at work.
- Some candidates did not make comment on the fuel can left unsecured in the grass area.
- Little comment was made as to the dangers of steel fence wire within the hedge when using a petrol driven hedge trimmer. It is important to assess the work area before commencing with the trimming.
- It is important especially in park areas that the area being worked upon is cordoned off from the public.
- The use of ear protectors, goggles and gloves in case of sharp elements being thrown out when trimming.

#### **General comment**

Good answers were offered by the majority of candidates, demonstrating a good knowledge and awareness of this topic area.

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