



Candidate Number:

Candidate Name:

Centre Number/Name:

RHS LEVEL 2 CERTIFICATE IN HORTICULTURE

Thursday 28 June 2007

IMPORTANT - Please read carefully before commencing.

- i) The duration of the papers in Horticulture II is **1½ hours**;
- ii) **ALL** questions should be attempted in Section 1;
- iii) **EACH** question carries **2 marks**;
- iv) Write your answers legibly on the lines provided;
- v) Use **EITHER** metric **OR** imperial measurements but **NOT** both;
- vi) Where plant names are required they should include genus, species and, where appropriate, cultivar.

HORTICULTURE II – Ornamental, Principles & Maintenance

Section 1 – Short Answer Questions

Please turn over

All questions should be attempted.

Marks

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Q1 State **FOUR** differences between topsoil and subsoil.

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Q2 State **TWO** methods by which plant viruses can be spread.

2

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Q3 Name **TWO** different materials used in the manufacture of containers for display plants. State **ONE** advantage and **ONE** limitation for **EACH** material.

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Marks

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Q4 Describe the process of pinching out (stopping) and the effect this has on the plant.

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Q5 State **TWO** reasons for using a **NAMED** organic material as a mulch.

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Q6 Name **TWO** principal operations carried out on a mature wildflower grassland, stating the time and reason for **EACH**.

2

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Please turn over

Marks

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Q7 State **TWO** horticultural benefits of earthworms.

2

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Q8 Name **TWO** plants suitable for low maintenance 'ground cover'.

2

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Q9 List **FOUR** factors which affect light transmission into a greenhouse.

2

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Please see over

Marks

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Q10 Name **FOUR** plants suitable for spring seasonal bedding displays.

2

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Q11 Define the term 'weed' and name **TWO** examples of perennial weeds.

2

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Q12 a) Define the term 'bulb forcing'.

b) State **ONE** procedure used in forcing a **NAMED** bulb.

2

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Please turn over

Marks

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Q13 Name and briefly describe **FOUR** methods of supporting herbaceous perennials.

2

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Q14 Give **TWO** examples of how plant selection can be used to avoid plant health problems.

2

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Q15 Name **TWO** grass species suitable for the production of a fine lawn, stating an ideal sowing rate for the mixture.

2

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The Royal Horticultural Society, Wisley, Woking, Surrey GU23 6QB



RHS LEVEL 2 CERTIFICATE IN HORTICULTURE

Thursday 28 June 2007

IMPORTANT - Please read carefully before commencing.

- i) The duration of the papers in Horticulture II is **1½ hours**;
- ii) Any **THREE** questions in Section 2 should be attempted;
- iii) **EACH** question carries **10 marks**;
- iv) Start **EACH** new question on a separate answer booklet;
- v) Use **EITHER** metric **OR** imperial measurements, but **NOT** both;
- vi) Where plant names are required, they should include genus, species and where appropriate, cultivar.

HORTICULTURE II – Ornamental, Principles & Maintenance

Section 2 – Structured Questions

Please turn over

Answer **THREE** questions from this section.

		Marks
Q16	a) Define the term soil structure.	2
	b) Describe TWO ways in which soil structure can be:	
	i) improved AND	4
	ii) damaged.	4
Q17	Describe the cultivation of a NAMED decorative pot plant grown under protection using EACH of the following:	
	i) propagation;	3
	ii) potting;	3
	iii) watering and feeding;	2
	iv) environmental control.	2
Q18	a) Name THREE plants suitable for use in hanging baskets for summer display.	3
	b) Describe the establishment and maintenance of hanging baskets under the following headings:	
	i) planting;	3
	ii) irrigation ;	2
	iii) nutrition.	2
Q19	a) State FOUR distinct reasons for pruning ornamental woody shrubs.	4
	b) Describe the pruning techniques for EACH of the following THREE groups of woody shrubs, naming an example of EACH :	
	i) spring flowering;	2
	ii) summer flowering;	2
	iii) those grown for winter stem effect.	2

Please see over

- Q20** a) Describe the life cycle of a **NAMED** fungal disease. **6**
- b) State:
- i) the damage caused; **2**
 - ii) **ONE** possible control method. **2**
-
- Q21** a) Describe **TWO** distinct methods of controlling **EACH** of the following within a greenhouse:
- i) temperature; **2**
 - ii) relative humidity; **2**
 - iii) light level. **2**
- b) State how the siting and structural orientation of the greenhouse can affect the effectiveness of the control methods noted in a). **4**



RHS LEVEL 2 CERTIFICATE IN HORTICULTURE

28 June 2007

Horticulture II

Candidates Registered	2007	Pass with Commendation	775 (44%)
Candidates Entered	1766 (86%)	Pass	777 (44%)
Absent/Withdrawn/Deferred	241 (12%)	Fail	216 (12%)
Total Candidates Passed	1552 (88%)		

Senior Examiners Comments:

1. Candidates should be able to demonstrate a good range of plant knowledge and be able to give accurately named plant examples where appropriate. Common names and generic names are often too vague and cannot be rewarded in the positive manner that genus, species and where appropriate variety/cultivar can.
2. Candidates must be able to display accurate knowledge of the technical terms and concepts detailed in the syllabus, in the context of horticulture, and be aware that wider interpretation will not be rewarded.
3. The introductory rubric given on the first page of the question paper should be read carefully by candidates. Each year there is a significant number of candidates who ignore or misread the instructions given and consequently may not perform as well as they could have done. This is particularly so where candidates answer either more questions or more parts to a question than are required.
4. Candidates should pace themselves during each paper. The most successful candidates allow sufficient time to read the question thoroughly before answering it and also take time to read through their answers.
5. Candidates need to interpret key words within questions, particularly those such as state, list and describe. Questions requiring descriptions or explanations obviously require a more detailed answer than those requiring a list.
6. In the short answer sections it is important to ensure that responses are to the point and contained within the space allocated. Candidates should bear in mind that small sketches may be used to convey information more succinctly than words.
7. Successful candidates ensure that their answers to structured questions are focussed and to the point. It is disappointing when they cannot be rewarded for their efforts because the answer is irrelevant to the particular question.

- Candidates should take note of the mark allocation for specific sections and allocate their time and efforts accordingly.
8. Diagrams in structured questions can enhance an answer and, where appropriate, can replace detailed descriptions. They should be large, clear and well annotated, and preferably in pencil. Colour may be used successfully but only where it is relevant to the answer.
 9. In each examination, it is clear that a proportion of candidates are ill prepared to answer papers of the type set. It is essential that candidates have the opportunity to practice both short and structured questions. Ideally some papers should be answered in a time-constrained situation. Appropriate feedback must, in any case, be provided.
 10. Candidates should be aware of the reading list of suggested books for the RHS (Level 2) Certificate in Horticulture is available from the RHS Qualifications.

Examiners Comments:

Paper 1 - Short Answer Questions	Marks
<p>Q1. State FOUR differences between topsoil and subsoil.</p> <p>A well answered question. Marks were lost where differences were not stated, and where the relative positions of the two horizons were simply listed.</p>	2
<p>Q2. State TWO methods by which plant viruses can be spread.</p> <p>The best answers included mention of the vectors involved, and the methods by which infection takes place.</p>	2
<p>Q3. Name TWO different materials used in the manufacture of containers for display plants. State ONE advantage and ONE limitation for EACH material.</p> <p>Two distinct materials were correctly named in most responses. However vague statements such as 'price' or 'aesthetically pleasing' were not rewarded.</p>	2
<p>Q4. Describe the process of pinching out (stopping) and the effect this has on the plant.</p> <p>Most candidates had some idea of the meaning of the term 'pinching'. However descriptions of the process, and its effect were generally poor.</p>	2
<p>Q5. State TWO reasons for using a NAMED organic material as a mulch.</p> <p>Most responses gave two valid reasons for mulching. Better answers related these to the named material.</p>	2

Q6. Name **TWO** principal operations carried out on a mature wildflower grassland, stating the time and reason for **EACH**. 2

Candidates could often state two operations to be carried out, but many failed to give a time and/or reason, and consequently lost marks.

Q7. State **TWO** horticultural benefits of earthworms. 2

Most candidates showed a very good understanding of the beneficial role of earthworms.

Q8. Name **TWO** plants suitable for low maintenance 'ground cover'. 2

Most candidates showed a good knowledge of plants for ground cover.

Q9. List **FOUR** factors which affect light transmission into a greenhouse. 2

Many answers gained high marks, although vague statements such as 'time of day' or 'weather conditions' were not rewarded.

Q10. Name **FOUR** plants suitable for spring seasonal bedding displays. 2

Although most candidates appeared to have some knowledge of spring bedding plants, there was often a lack of clarity in fully naming their recommendations.

Q11. Define the term 'weed' and name **TWO** examples of perennial weeds. 2

Definitions needed to make it clear that not only is a weed a plant undesirable in a particular position, but also that it is not wanted at all. Examples were well given, although not always completely identified

Q12. a) Define the term 'bulb forcing'.

b) State **ONE** procedure used in forcing a **NAMED** bulb. 2

A few good answers were received. However many did not mention the flowering period of the plant. On procedures, there was a lack of detail, showing a lack of appreciation of the need for a cool, damp, dark period, before providing heat.

Q13. Name and briefly describe **FOUR** methods of supporting herbaceous perennials. 2

Good, brief descriptions were received from most candidates, some included small diagrams.

Q14. Give **TWO** examples of how plant selection can be used to avoid plant health problems. 2

This question was about the selection of plants to avoid future problems. The most well rewarded answers therefore referred for example to the use of certified stock, and resistant varieties.

Q15. Name **TWO** grass species suitable for the production of a fine lawn, stating an ideal sowing rate for the mixture. 2

Some good answers were seen, but too many failed to fully identify the grasses in the mixture, and/or stated the % composition, rather than the sowing rate. A very wide range of answers was given to the latter, including some in mixed units.

Section 2 - Structured Questions

Marks

Q16. a) Define the term soil structure. 2

b) Describe **TWO** ways in which soil structure can be:-
i) improved **AND** 4
ii) damaged. 4

a) Although some good definitions were given, many candidates confused soil structure and texture. Mention of types of aggregate was required to achieve full marks.

b) Many candidates cited correctly, ways in which soil structure may be improved or damaged, but there was less certainty on the mechanisms involved.

Q17. Describe the cultivation of a **NAMED** decorative pot plant grown under protection using **EACH** of the following:

i) propagation; 3
ii) potting; 3
iii) watering and feeding; 2
iv) environmental control. 2

There were a few good answers to this question, but the majority lacked the detail necessary to achieve high marks.

i) Many failed to describe the propagation method to a high enough standard. Omitted were details of compost type, time of year and the sequential steps needed to complete the technique
ii) Again answers lacked specific information on timing, handling and type of container.
iii) Better answered but vague statements such as 'watered regularly' were not rewarded.

- iv) Poorly answered, as responses were often insufficiently specific to the named plant.

- Q18. a) Name **THREE** plants suitable for use in hanging baskets for summer display. **3**
- b) Describe the establishment and maintenance of hanging baskets under the following headings:
- i) planting; **3**
 - ii) irrigation; **2**
 - iii) nutrition. **2**
- a) Most candidates were able to name three suitable plants.
- b) i) Insufficient detail was often given, as to type of basket, planting technique, number of plants required etc.
- ii) Generally well answered.
- iii) Many responses failed to give details of fertilizer recommendations, for example levels of Nitrogen and Potassium.
- Q19. a) State **FOUR** distinct reasons for pruning ornamental woody shrubs. **4**
- b) Describe the pruning techniques for **EACH** of the following **THREE** groups of woody shrubs, naming an example of **EACH**:
- i) spring flowering **2**
 - ii) summer flowering; **2**
 - iii) those grown for winter stem effect. **2**
- a) Well answered by the majority of candidates.
- b) Also well covered, but a significant number of candidates lost marks as they did not fully describe the pruning technique in terms of the position and angle of cuts.
- Q20. a) Describe the life cycle of a **NAMED** fungal disease. **6**
- b) State:
- i) The damage caused; **2**
 - ii) **ONE** possible control method. **2**

Those (few) candidates who attempted this question were generally well rewarded. Life cycles were well understood, although over-wintering/resting phases were often omitted. Damage and control methods were described well.

- Q21. a) Describe **TWO** distinct methods of controlling **EACH** of the following within a greenhouse:
- i) temperature; **2**
 - ii) relative humidity; **2**
 - iii) light level. **2**
- b) State how the siting and structural orientation of the greenhouse can affect the effectiveness of the control methods noted in a). **4**
- a) Most answers provided relevant methods of control, but failing to describe the results of actions taken lost marks.
- b) Many candidates stated that glasshouses should be oriented with the ridge from east to west, but few stated the reasons why. Shaded sites were correctly identified as those to avoid.

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