



**R2112**

**UNDERSTANDING THE CHOICE, ESTABLISHMENT &  
MAINTENANCE OF GARDEN PLANTS & LAWNS**

**Level 2**

**Tuesday 6 February 2018**

**11:20 – 12:10**

**Written Examination**

**Candidate Number:** .....

**Candidate Name:** .....

**Centre Number/Name:** .....

**IMPORTANT – Please read carefully before commencing:**

- i) The duration of this paper is **50** minutes;
- ii) **ALL** questions should be attempted;
- iii) **EACH** question carries **10 marks**;
- iv) Write your answers legibly in the lined space provided. It is **NOT** necessary that all lined space is used in answering the questions;
- v) Use **METRIC** measurements only;
- vi) Use black or blue ink only. Pencil can be used for drawing purposes only;
- vii) Where plant names are required, they should include genus, species and where appropriate, cultivar;
- viii) Where a question requires a specific number of answers; only the first answers given that meet the question requirement will be accepted, regardless of the number of answers offered;
- ix) Please note, when the word '**distinct**' is used within a question, it means that the items have different characteristics or features.













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**The Royal Horticultural Society, Wisley, Woking, Surrey GU23 6QB.  
Charity Registration Number: 222879/SC038262**



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<b>Candidates Registered</b>	<b>651</b>		<b>Total Candidates Passed</b>	<b>424</b>	<b>81.23%</b>
Candidates Entered	522	80.18%	Passed with Commendation	175	33.53%
Candidates Absent/Withdrawn	115	17.67%	Passed	249	47.70%
Candidates Deferred	14	2.15%	Failed	98	18.77%

**Senior Examiner's Comments:**

- 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. This is particularly important when answering questions relating to particular (named) plant(s). Marks can only be awarded for these narratives where the example(s) are correctly and fully identified.
- Candidates must be able to display accurate knowledge of the technical terms and concepts detailed in the syllabus, in the context of horticulture and also be aware that wider interpretation will not be rewarded. The examination should be regarded as a possible introduction to higher level studies, which will only be open to those who are in possession of a clear understanding of the horticultural terms and concepts which are current.
- The introductory rubric given on the first page of each question paper should be read carefully by candidates. At each examination there are a significant number of candidates who ignore or misread the instructions given and consequently may not perform as well as they could have done.

- 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. They should take care to write as legibly as possible, so that the examiner is in no doubt about what is intended.
- 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 It is important to ensure that responses to questions are to the point. Candidates should bear in mind that small sketches might be used to convey information more succinctly than words.
- 7 Successful candidates ensure that their answers are focused 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 can enhance an answer and where appropriate can replace detailed descriptions. They should be large, clear and well annotated, ensuring that labels are properly attached to the features they describe. Diagrams should preferably be in pencil. Colour may be used successfully but only where it is relevant to the answer.
- 9 In each examination it is clear that some candidates are ill prepared to answer papers of the type set. It is essential that candidates have the opportunity to practice questions. Ideally some papers should be answered in a time constrained situation. Appropriate feedback must, in any case be provided.

	<b>MARKS</b>
<b>Q1 a)</b> Define the term hardy annual.	<b>2</b>
b) List <b>FOUR</b> distinct plants suitable for a hardy annual border.	<b>4</b>
c) State <b>FOUR</b> maintenance tasks carried out during the establishment of direct sown hardy annuals.	<b>4</b>

**Q1a)** Full marks were awarded to candidates who correctly defined the term hardy annual. A hardy annual is an annual plant that completes its life cycle in one growing season and can be grown in the open ground. These plants are able to withstand cold temperatures and frost.

**Q1b)** The best candidates were able to name a range of plants suitable for a hardy annual border and gained maximum marks. These included;

*Calendula officinalis, Eschscholzia californica, Nigella damascena, Papaver rhoeas, Helianthus annuus, Amni majus.*

Candidates who named half-hardy annuals, biennials or perennials could not be awarded any marks.

**Q1c)** Most candidates provided a range of maintenance tasks which can be carried out during the establishment of direct sown hardy annuals and achieved full marks. Suitable answers included;

- Watering by hand or by the use of an automatic system, e.g. seep hose
- Weeding to remove competing weed seedlings
- Gapping up areas where germination was poor
- Thinning of germinated seedlings to final spacing
- Insertion of supports for climbers, e.g. *Lathyrus odoratus*

**Q2 a)** Name **ONE** for **EACH** of the following types of plants suitable for growing in an herbaceous border by completing the table below.

**3**

<b>Type of plant</b>	<b>Plant example</b>
<b>Bulb</b>	
<b>Corm</b>	
<b>Tuber</b>	

**b)** Describe the planting of **ONE** of the plants named in a).

**7**

**Q2a)** Candidates were able to name suitable specific types of plants for growing in an herbaceous border. These included;

- **Bulb** – *Allium hollandicum* ‘Purple Sensation’
- **Corm** – *Crocsmia* ‘Lucifer’
- **Tuber** – *Dahlia* ‘Bishop of Llandaff’

**Q2b)** Many candidates provided good descriptions of the planting of one of the plants that they had named. The best descriptions which were awarded full marks included the following in their answers;

- Dig a hole to the correct depth and size for the plant
- Add grit to the base of the planting hole to improve drainage or fertiliser, e.g. Growmore to provide nutrients
- Plant the plant at the correct depth i.e. tuber buried with crown above ground level, e.g. *Dahlia*
- Backfill the soil
- Firm the soil gently to avoid root damage
- Water either before or after planting or the bottom of the planting hole
- Mulch using e.g. garden compost to a depth of 50-75mm

**Q3 a)** Name **ONE** shrub for **EACH** of the following categories:

- |                       |          |
|-----------------------|----------|
| i) spring flowering;  | <b>1</b> |
| ii) summer flowering; | <b>1</b> |
| iii) autumn display.  | <b>1</b> |

b) State how powdery mildew can be minimised on woody plants. **4**

c) Name **THREE** other diseases which affect woody plants. **3**

**Q3a)** The majority of candidates were able to provide plant examples for the specific categories and gained maximum marks. Acceptable answers included;

- i) Spring flowering, e.g. *Camellia japonica*, *Forsythia x intermedia* 'Lynwood'
- ii) Summer flowering, e.g. *Buddleja davidii*, *Lavendula angustifolia*
- iii) Autumn display, e.g. *Euonymus alatus*, *Cornus alba*

**Q3b)** Maximum marks were gained by candidates who gave specific details how powdery mildew can be minimised on woody plants. The best answers which gained full marks included;

- The removal and destruction (by burning) of infected fallen leaves
- Pruning out and destroying infected plant material
- Mulching to reduce water stress making plants less susceptible to infection
- Ensure plants are watered effectively at soil level to avoid stress
- Prune plants to improve air flow through the plant

**Q3c)** A range of diseases which affect woody plants were named by the majority of candidates who were awarded full marks. Suitable answers included;

Honey fungus, Bacterial canker, Black spot, Fireblight, Coral spot and Botrytis.

**MARKS**

**Q4 a)** State what is meant by **EACH** of the following:

- i) true alpine plants; **2**
- ii) rock garden plants. **2**

b) State the distinct characteristics of a scree bed suitable for alpine or rock garden plants in a domestic garden. **3**

c) Name **THREE** distinct alpine plants which are suitable for growing in a scree bed. **3**

**Q4a)** Candidates who were able to state the meaning of the specific terms gained maximum marks. Acceptable answers included;

- i) True alpine plants are those that grow in high mountainous regions above the tree line
- ii) Rock garden plants are compact or small plants that are suitable for growing in a rock garden and are adapted to free draining, low nutrient conditions

**Q4b)** The best candidates were able to state that a scree bed should be covered with a mass of small stones and mimic a slope of a mountain. It is an area for growing alpine plants which is devoid of larger rocks but has sharp drainage at the surface.

**Q4c)** Most candidates provided a range of alpine plants which are suitable for growing in a scree bed and were awarded full marks. Suitable examples included;

*Dryas octopetala, Sempervivum arachnoideum, Phlox subulata, Lewisia cotyledon, Armeria caespitosa.*

**MARKS**

**Q5 a)** Name **TWO** distinct marginal aquatic plants.

i)..... **1**

ii)..... **1**

b) Describe **FOUR** distinct maintenance tasks carried out on marginal plants in a garden pool. **8**

**Q5a)** Marks were gained by candidates who named specific marginal aquatic plants. Acceptable answers included;

*Caltha palustris, Iris laevigata, Mentha aquatica, Butomus umbellatus.*

Candidates who named deep water aquatics could not be awarded any marks.

**Q5b)** Candidates who provided detailed descriptions of maintenance tasks carried out on marginal plants gained maximum marks. These included;

**Trimming** – what is being trimmed, height of trimming, position and season carried out

**Repotting** – Time of year, when grown out of container, method of repotting from old container to new one, use of aquatic growing media

**Lifting and Dividing** – Time of year, cutting/pulling apart, position in new container

**Weeding** – Untangling blanket weed, hand weeding, removing weed seedlings, replacing pebbles

	<b>MARKS</b>
<b>Q6 a)</b> State an appropriate grass seed mixture suitable for a high quality ornamental lawn.	<b>2</b>
b) State <b>FOUR</b> distinct benefits of establishing a lawn from seed.	<b>4</b>
c) State <b>FOUR</b> distinct limitations of establishing a lawn from seed.	<b>4</b>

**Q6a)** The majority of candidates were able to give a suitable grass seed mixture for a high quality ornamental lawn, e.g. *Agrostis capillaris* (*Agrostis tenuis*) and *Festuca rubra* subsp. *commutata* and were awarded full marks.

**Q6b)** A range of benefits of establishing a lawn from seed were given by candidates who achieved full marks. These included;

- Easier to handle
- Easier and lighter to transport
- Greater range of cultivars and mixtures available
- Cheaper to purchase than turf
- Lower labour costs than turf
- Can be stored longer than turf between purchase and use

**Q6c)** Most candidates provided distinct limitations of establishing a lawn from seed and gained full marks. Acceptable answers included;

- Takes longer to establish a lawn
- Restricted to specific times for sowing the lawn
- More prone to pest and disease problems
- Preparation of the seed bed is more critical than when laying turf
- More prone to weed problems compared to turf

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