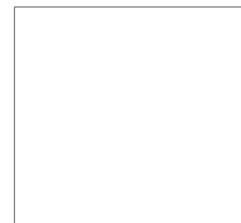




Inspiring everyone to grow



R2112

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

Level 2

Tuesday 12 February 2019

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.

ANSWER ALL QUESTIONS

MARKS

Q1 a) State the symptoms and control methods for **EACH** of the following diseases of bedding plants by completing the table below:

	Symptoms	Control methods
Powdery mildew		1. 2.
Grey mould		1. 2.

4

4

b) State **TWO** distinct methods of irrigation which can be used during the maintenance of summer bedding plants.

2

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Total Mark

Please see over/.....

MARKS

Q2 a) Describe the soil preparation for an herbaceous border, under **EACH** of the following headings:

- i) methods of cultivation;
- ii) materials added during cultivation.

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b) Name **TWO** distinct herbaceous perennial plants suitable for growing as ground cover.

2

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Total Mark

Please turn over/.....

MARKS

Q3 a) State **ONE** general pruning task which can be carried out for all shrubs.

1

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b) Describe how to prune **THREE** distinct **NAMED** shrubs for different seasons of interest, by completing the table below:

Spring flowering	
Named plant	
Method of pruning	
Summer flowering	
Named plant	
Method of pruning	
Winter stem interest	
Named plant	
Method of pruning	

3

3

3

Total Mark

Please see over/.....

MARKS
10

Q6 State an ideal month to carry out **EACH** of the following tasks included in the annual maintenance of a fine quality lawn by completing the table below:

Maintenance task	Month
Scarifying	
Feeding with a high nitrogen fertiliser	
Feeding with a balanced fertiliser	
Mowing	
Aerating	
Top dressing	
Weed control	
Mole control	
Control of Fusarium Patch	
Control of pests e.g. Leatherjackets	

Total Mark

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



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MAINTENANCE OF GARDEN PLANTS & LAWNS**

Level 2

Tuesday 12 February 2019

Candidates Registered	645		Total Candidates Passed	447	83%
Candidates Entered	541	84%	Passed with Commendation	163	30%
Candidates Absent/Withdrawn	94	14%	Passed	284	53%
Candidates Deferred	10	2%	Failed	94	17%

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.

Q1 a) State the symptoms and control methods for **EACH** of the following diseases of bedding plants by completing the table below:

	Symptoms	Control methods
Powdery mildew		1. 2.
Grey mould		1. 2.

4

4

b) State **TWO** distinct methods of irrigation which can be used during the maintenance of summer bedding plants.

2

Q1a) Most candidates were able to state the symptoms and control methods of specific diseases that affect bedding plants and were awarded full marks. Suitable answers included:

Powdery mildew – is a fungal disease which appears as a white/grey dusty coating on the leaves/stems and flowers. It can be controlled by the use of a fungicide e.g. tebuconazole, removing infected parts of the plant and by effective irrigation to prevent drying at the roots.

Grey mould – is a fungal disease which appears as fluffy grey spores on all soft tissue of the plant. It develops rapidly into a slimy rot. It can be controlled by the reduction of overhead irrigation and ensuring there is adequate air circulation.

Q1b) Suitable methods of irrigation for bedding plants which gained maximum marks by candidates included:

Overhead sprinklers, watering can with a fine rose, hose with a lance and low level seep hose.

Q2 a) Describe the soil preparation for an herbaceous border, under **EACH** of the following headings:

- i) methods of cultivation; **4**
- ii) materials added during cultivation. **4**

b) Name **TWO** distinct herbaceous perennial plants suitable for growing as ground cover. **2**

Q2a) Good descriptions of specific aspects of soil preparation for an herbaceous border were provided by the best candidates who achieved full marks. These included:

- i) Single/double digging or rotary cultivation carried out either in the autumn or spring would be followed by raking to break down the surface lumps and then consolidated before creating a coarse tilth prior to planting.
- ii) Well-rotted farmyard manure, garden compost, spent mushroom compost, lime or grit to improve drainage are all materials that could be added during cultivation.

Q2b) Maximum marks were gained by candidates who named suitable herbaceous perennials for growing as ground cover. These included:

Ajuga reptans, Alchemilla mollis, Bergenia cordifolia, Lamium maculatum, Geranium macrorrhizum, Symphytum ibericum.

Q3 a) State **ONE** general pruning task which can be carried out for all shrubs.

1

b) Describe how to prune **THREE** distinct **NAMED** shrubs for different seasons of interest, by completing the table below:

Spring flowering		
Named plant		
Method of pruning		3
Summer flowering		
Named plant		
Method of pruning		3
Winter stem interest		
Named plant		
Method of pruning		3

Q3a) The removal of the 3D's i.e. dead, diseased and damaged material was stated by most candidates as a general pruning task. Other suitable answers included; removal of crossing or rubbing branches and to restrict the size of the plant.

Q3b) The majority of candidates were able to describe the pruning of correctly named shrubs for specific seasons of interest and were awarded full marks. Acceptable answers included:

Forsythia x intermedia – is grown for spring flowering and is pruned in April to May, directly after flowering by removing some branches back to the base and reducing the length of some branches to maintain a natural shape.

Buddleja davidii – is grown for summer flowering and is pruned in February to March by cutting back all stems to within 5cm of the old wood in a 'stagshorn' shape.

Cornus alba – is grown for winter stem interest and is pruned in March to April by stooling i.e. cutting all stems back to 5cm from their point of origin.

MARKS

Q4 a) List **SIX** characteristics of a suitable growing media for alpine or rock garden plants in containers.

6

b) Name **FOUR** distinct alpine or rock garden plants.

4

Q4a) A range of suitable characteristics of growing media for alpine or rock garden plants in containers were provided by the majority of candidates who achieved full marks. These included:

Free draining, well aerated, low in nutrients, moisture retentive, suitable pH for the chosen plants, free from pests and diseases and weeds, stable i.e. not 'slumping'.

Q4b) Candidates named a range of alpine and rock garden plants and were awarded full marks. These included:

Lewisia cotyledon, Sempervivum arachnoideum, Raoulia hookeri, Armeria juniperifolia, Dryas octopetala, Gentiana acaulis.

- Q5 a)** Identify **THREE** different plant groups, for different situations within a pond. **3**
- b) Name **ONE** example of an aquatic plant for **EACH** of the plant groups stated in a). **3**
- c) Describe **TWO** methods of controlling blanket weed in a pond. **4**

Q5a) Most candidates were able to correctly identify suitable plant groups for a pond and gained full marks. These included:

Deep water, floating, oxygenators, marginal and bog garden plants.

Q5b) A range of plants for specific plant groups were named by candidates who were awarded full marks. Acceptable answers included:

Deep water – *Nymphaea alba*, *Nuphar lutea*

Floating – *Hydrocharis morsus-ranae*, *Stratiotes aloides*

Oxygenators – *Myriophyllum verticillatum*, *Lagarosiphon major*

Marginal – *Iris pseudacorus*, *Caltha palustris*

Bog – *Gunnera manicata*, *Primula japonica*

Q5c) Maximum marks were gained by candidates who provided good descriptions of the control of blanket weed in a pond. Suitable answers included:

Blanket weed can be controlled by 'twirling' it around a cane or the handle of a rake and leaving it at the side of the pond initially to allow any wildlife to return to the pond.

Floating a bale of barley straw in a mesh bag in the pond is an effective method of controlling blanket weed. Approximately 50g of straw per m² of water surface area is ideal. The straw is added to the pond in spring and is removed after six months when it has turned black.

Q6 State an ideal month to carry out **EACH** of the following tasks included in the annual maintenance of a fine quality lawn by completing the table below:

10

Maintenance task	Month
Scarifying	
Feeding with a high nitrogen fertiliser	
Feeding with a balanced fertiliser	
Mowing	
Aerating	
Top dressing	
Weed control	
Mole control	
Control of Fusarium Patch	
Control of pests e.g. Leatherjackets	

Q6a) Candidates who provided a suitable month or range of months for specific tasks when carrying out annual maintenance on a fine quality lawn achieved full marks. These included:

Maintenance Task	Month
Scarifying\	March – April & September - October
Feeding with a high nitrogen fertiliser	March - August
Feeding with a balanced fertiliser	March & September - October
Mowing	March - September
Aerating	April – June & September - October
Top Dressing	March – April & September - October
Weed control	March – April & September - October
Mole control	February - June
Control of Fusarium Patch	September - November
Control of pests e.g. Leatherjackets	July - September
