Including Examiners comments

RHS
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R2112

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

Level 2

Tuesday 11 February 2020

11:20 – 12:10

Written Examination

Candidate Number: .....

Candidate Name: .....

Centre 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 spaces 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. Ensure that all diagrams are labelled accurately with the line touching the named object;
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 **TWO** examples of materials used in a hanging basket under **EACH** of the following headings:

i) liners **2**
ii) compost and compost additives **2**

i).....

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ii).....

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b) Name **SIX** distinct plants suitable for use in seasonal hanging baskets by completing the table below:

Summer display	**Example 1**	**1**
	Example 2	**1**
	Example 3	**1**
Winter display	**Example 1**	**1**
	Example 2	**1**
	Example 3	**1**

Total Mark

Please see over/…..

MARKS

Q2 a) State **TWO** situations where bulbs and corms can be naturalised, giving a **NAMED** plant example for **EACH**. **4**

Situation 1.....

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NAMED plant.....

Situation 2.....

.....

NAMED plant.....

b) Describe **TWO** methods of naturalising **ONE** of the bulbs named above.

1...... **3**

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2...... **3**

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Total Mark

Please turn over/…..

MARKS

Q3 a) Name **TWO** examples of roses for **EACH** of the following:

i) cluster-flowered (floribunda) **2**

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ii) large-flowered (hybrid tea) **2**

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b) Describe the symptoms of **TWO NAMED** diseases of roses.

Disease 1

Name: **1**

Symptoms:..... **2**

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Disease 2

Name: **1**

Symptoms:..... **2**

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Total Mark

Please see over/…..

MARKS

Q4 a) State **FOUR** factors to consider in the selection of a container for growing alpine plants. **4**

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b) Name **SIX** alpine **OR** rock garden plants suitable for a container. **6**

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Total Mark

Please turn over/…..

MARKS

Q5 a) Name **TWO** distinct aquatic plants from **EACH** of the following groups:

i) floating **2**

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ii) deep-water **2**

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b) Describe **ONE** suitable method used to divide aquatic plants. **6**

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Total Mark

Please see over/…..

MARKS

Q6 a) Name **TWO** grasses suitable for a high quality ornamental lawn.

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..... **1**

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b) Describe **FOUR** maintenance tasks carried out on a high quality ornamental lawn.

1...... **2**

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2...... **2**

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3...... **2**

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4...... **2**

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Total Mark

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Level 2

Tuesday 11 February 2020

Candidates Registered	**657**		**Total Candidates Passed**	**422**	**76%**
Candidates Entered	556	85%	Passed with Commendation	192	35%
Candidates Absent/Withdrawn	93	14%	Passed	230	41%
Candidates Deferred	8	1%	Failed	134	24%

Senior Examiner's 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. 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.

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 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.

3 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.

MARKS

Q1 *a) State **TWO** examples of materials used in a hanging basket under **EACH** of the following headings:*

i) liners ***2***
ii) compost and compost additives ***2***

*b) Name **SIX** distinct plants suitable for use in seasonal hanging baskets by completing the table below:*

Summer display	***Example 1***	***1***
	Example 2	***1***
	Example 3	***1***
Winter display	***Example 1***	***1***
	Example 2	***1***
	Example 3	***1***

Q1) Most candidates provided suitable materials used in a hanging basket and gained maximum marks. Acceptable answers included:

i) **Liners** – sphagnum moss, pre-formed coir matting, hessian, moulded cardboard.

ii) **Compost and Compost Additives** – multi-purpose compost, John Innes No. 2, water retaining gels e.g. Swellgel, controlled release fertiliser e.g. Osmocote plugs, reservoir to hold water e.g. a plastic saucer.

Q1b) The best candidates named a range of plants for use in seasonal hanging baskets and were awarded full marks. Suitable answers included:

Summer Display – *Lobelia erinus, Pelargonium zonale, Impatiens walleriana, Helichrysum petiolare, Petunia* (Easy Wave Series) *Easy Wave Blue, Lysimachia nummularia.*

Winter Display – *Hedera helix* 'Glacier', *Viola x wittrockiana, Erica carnea, Gaultheria procumbens, Narcissus* 'Tête-à-tête', *Carex oshimensis.*

		MARKS
Q2 *a)*	*State **TWO** situations where bulbs and corms can be naturalised, giving a **NAMED** plant example for **EACH**.*	***4***
b)	*Describe **TWO** methods of naturalising **ONE** of the bulbs named above.*	
	1......	***3***
	2......	***3***

Q2a) Maximum marks were gained by candidates who were able to give appropriate situations and examples where bulbs and corms can be naturalised. Suitable answers included:

- **Lawn** e.g. *Narcissus pseudonarcissus*
- **Meadow** e.g. *Fritillaria meleagris*
- **Rock Garden** e.g. *Scilla siberica*
- **Woodland/Under trees** e.g. *Cyclamen hederifolium*

Q2b) Many candidates provided good descriptions of suitable methods to naturalise a specific bulb and achieved full marks. These included:

Narcissus pseudonarcissus are distributed in a natural pattern and holes to a depth of three times the height of the bulb are made in the lawn with a bulb planter or a spade. The bulbs are spaced approximately the width of the bulb apart. The bulbs are placed in the holes ‘nose up’, the soil is replaced and firmed and then the turf is replaced.

Narcissus pseudonarcissus can also be planted by removing a section of turf and rolling it back. The soil is prepared and the bulbs are distributed by scattering them. Holes three times the depth of the bulb are made using a trowel or spade. The bulbs are placed in the holes ‘nose up’ and covered with soil. The turf is rolled back and firmed.

MARKS

Q3 *a) Name **TWO** examples of roses for **EACH** of the following:*

i) cluster-flowered (floribunda) ***2***

ii) large-flowered (hybrid tea) ***2***

*b) Describe the symptoms of **TWO NAMED** diseases of roses.*

Disease 1

Name: ***1***

Symptoms:..... ***2***

Disease 2

Name: ***1***

Symptoms:..... ***2***

Q3a) Full marks were gained by candidates who named suitable examples for each type of rose. These included:

i) **Cluster Flowered** – *Rosa* 'Iceberg', *Rosa* 'Golden Wedding', *Rosa* 'Queen Elizabeth'.

ii) **Large Flowered** – *Rosa* 'Peace', *Rosa* 'Blue Moon', *Rosa* 'Alec's Red'.

Candidates who named modern shrub and patio roses could not be awarded any marks.

Q3b) Good descriptions of the symptoms of rose diseases were provided by the best candidates who were awarded maximum marks. These included:

Rose Black Spot – appears as black/purple spots on the leaves and stems. As the disease develops the black spots on the leaves are ringed with yellow. Ultimately the leaves turn yellow and fall prematurely. The disease also reduces the vigour of the plant.

Rose Powdery Mildew – appears as grey/white growth mainly on the upper side of the leaves and buds but can affect all aerial parts of the plant. Flowering is poor and there is reduced vigour of the plant.

Candidates who described pests or plant disorders could not be awarded any marks.

		MARKS
Q4 *a)*	*State **FOUR** factors to consider in the selection of a container for growing alpine plants.*	***4***
b)	*Name **SIX** alpine **OR** rock garden plants suitable for a container.*	***6***

Q4a) Candidates who gained full marks were able to provide factors that need to be considered when selecting a container for alpine plants. Acceptable answers included:

- **Weight** - it needs to be light to enable it to be moved but heavy enough to avoid it being blown over
- **Drainage** - to prevent waterlogging
- **Appearance** – to suit the site and the plants
- **Material** – natural stone e.g. sandstone or limestone which is aesthetically pleasing
- **Size** – need a broad top for the display of alpines and not very deep as alpines are not deep rooting

Q4b) The best candidates named a range of alpine and rock garden plants suitable for a container. These included:

Armeria juniperifolia, Draba aizoides, Pulsatilla vulgaris, Raoulia hookeri, Saxifraga paniculata, Sempervivum arachnoideum.

MARKS

Q5 *a) Name **TWO** distinct aquatic plants from **EACH** of the following groups:*

i) floating ***2***

ii) deep-water ***2***

*b) Describe **ONE** suitable method used to divide aquatic plants.* ***6***

Q5a) The majority of candidates were able to name aquatic plants for specific situations and were awarded full marks. Suitable answers included:

i) **Floating** – *Stratiotes aloides, Hydrochaeris morsus-ranae, Pistia stratiotes.*

ii) **Deep-Water** – *Nymphaea alba, Nuphar lutea, Aponogeton distachyos.*

Q5b) Candidates who provided good descriptions of the division of aquatic plants achieved maximum marks. Acceptable answers included:

The container is lifted from the pond or the plant is carefully dug out of the pond, avoiding damage to the butyl or plastic liner. Personal care must be taken if the plant is in deep water. Remove the plant from the container. If roots are protruding from the container they may need trimming or teasing through the mesh sides. Compost/soil is removed from the roots before separating/cutting the plant into sections of a suitable size to include a growing point and some roots. Roots and leaves can be trimmed accordingly. Retain the most healthy and vigorous sections of the plant.

		MARKS
Q6 *a)*	*Name **TWO** grasses suitable for a high quality ornamental lawn.*	***2***
b)	*Describe **FOUR** maintenance tasks carried out on a high quality ornamental lawn.*	
	1......	***2***
	2......	***2***
	3......	***2***
	4......	***2***

Q6a) Most candidates were able to name suitable grasses for a high quality ornamental lawn and gained maximum marks. These included:

Fe*stuca rubra* subsp. *commutata, Agrostis capillaris*

Q6b) Good descriptions of maintenance tasks for a high quality ornamental lawn were provided by the best candidates who were awarded full marks. These included:

Mowing – the removal of excess grass growth to a height of 1cm in summer and 2cm in winter. This is usually carried out with a cylinder mower which will also collect the grass clippings. Edges should be trimmed using long handled edging shears.

Scarification – is carried out to remove the debris (thatch) e.g. weeds and moss in the lawn. Scarification also encourages the production of side shoots (tillers) at the base of the grass. It can be carried out using a spring tine rake or with a pedestrian operated mechanised scarifier. It is usually carried out in two directions.

Aeration – is the removal of a core of soil or making holes in a lawn to improve drainage and air movement in the soil. This is achieved by using a garden fork and inserting the tines up to 7.5cm into the soil at 0.5m distances. Alternatively a hand held aerator with hollow tines can be used for small areas and a mechanised one for larger areas.

Top Dressing – is carried out after aeration to encourage the grass to produce tillers. It consists of 70:30 sand:loam for a light soil and 80:20 for a heavy soil. It is distributed over the turf with a shovel at a rate of 2-4kg/m² and then worked in using a tru-lute or a besom broom.

Additional tasks which gained marks included; weeding, feeding, irrigation, pest and disease control.

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