Including examiner comments

R2112

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

Level 2

Tuesday 25 June 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) Name the situation where plants are used for edging, groundwork (infill) and dot planting. **1**

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b) State the meaning of **EACH** the following terms

i. edging;
ii. groundwork (infill);
iii. dot;

giving **TWO** distinct named plant examples for **EACH**, by completing the table below.

	Meaning of term	**Plant examples**	
Edging		**1.**	
		2.	**3**
Groundwork (infill)		**1.**	
		2.	**3**
Dot		**1.**	
		2.	**3**

Total Mark

Please see over/…..

MARKS

Q2 a) Identify **SIX** factors which need to be considered when planting a bare rooted herbaceous perennial. **6**

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b) Name **FOUR** distinct herbaceous perennials suitable for use as ground cover. **4**

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Total Mark

Please turn over/…..

MARKS

Q3 a) List **THREE** ameliorants which can be incorporated into the soil at the time of planting a bare rooted tree **3**

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b) Describe **ONE** method of staking a newly planted root balled tree. **3**

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c) Name **FOUR** trees suitable for a domestic garden. **4**

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Total Mark

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MARKS

Q4 a) Describe the process of trimming during the routine maintenance of alpine or rock garden plants. **4**

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b) Name **THREE** distinct alpine or rock garden plants for **EACH** of the following:

i) spring display **3**

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ii) summer display **3**

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Total Mark

Please turn over/…..

MARKS

Q5 a) Describe the maintenance tasks that should be carried out on a garden pool under **EACH** of the following headings:

i) netting **3**

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ii) control of invasive pond weeds **3**

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b) Name **FOUR** distinct aquatic plants suitable for growing in a garden pool. **4**

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Total Mark

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MARKS

Q6 a) Describe the technique of seeding a new lawn (excluding seed bed preparation). **4**

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b) Identify the correct grass species for **EACH** type of lawn by ticking the boxes in the table below; **2**

Name of grass species	**Hard wearing/ Utility lawn**	**High quality ornamental lawn**
Agrostis capillaris		
Festuca rubra commutata		
Lolium perenne		
Poa pratensis		

c) Describe **TWO** symptoms and a suitable method of control for **ONE NAMED** lawn disease. **4**

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Total Mark

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RHS

Inspiring everyone to grow

R2112

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

Level 2

Tuesday 25 June 2019

Candidates Registered	**672**		**Total Candidates Passed**	**447**	**79%**
Candidates Entered	563	84%	Passed with Commendation	225	40%
Candidates Absent/Withdrawn	99	15%	Passed	222	39%
Candidates Deferred	10	1%	Failed	116	21%

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) Name the situation where plants are used for edging, groundwork (infill) and dot planting. **1**

b) State the meaning of **EACH** the following terms

i. edging;
ii. groundwork (infill);
iii. dot;

giving **TWO** distinct named plant examples for **EACH**, by completing the table below.

	Meaning of term	**Plant examples**	
Edging		**1.**	**3**
		2.	
Groundwork (infill)		**1.**	**3**
		2.	
Dot		**1.**	**3**
		2.	

Q1a) The majority of candidates correctly named seasonal bedding as the situation and were awarded full marks. The terms successional and annual bedding were also accepted.

Q1b) Maximum marks were gained by candidates who were able to clearly state what is meant by each of the terms and gave suitable plant examples for each. These included:

i) **Edging** – A single or double row of plants positioned to frame a display which are usually lower in height than the main ground work e.g. *Viola x wittrockiana, Lobelia erinus, Begonia semperflorens.*

ii) **Groundwork (infill)** – The main planting within the scheme, uniform in height which is greater than the edging. The plants are grown for their flowers/colour of flowers e.g. *Pelargonium zonale, Salvia splendens, Tagetes erecta, Erysimum cheiri.*

iii) **Dot** – These are plants which are positioned to break up the effect of the groundwork and are usually taller in height. They are often foliage plants to provide a focal point or architectural interest e.g. *Ricinus communis, Canna indica, Fuchsia* 'Thalia'.

		MARKS
Q2 a)	Identify **SIX** factors which need to be considered when planting a bare rooted herbaceous perennial.	**6**
b)	Name **FOUR** distinct herbaceous perennials suitable for use as ground cover.	**4**

Q2a) Candidates who provided factors specific to planting a bare rooted herbaceous perennial achieved full marks. Suitable answers included:

- Plant from March to early May or late September to October
- Do not allow roots of plants to dry out during planting
- The root ball may need soaking prior to planting
- Trim roots and any damaged material prior to planting
- Prepare an appropriate sized planting hole
- Remove roots of weeds entangled within the root system prior to planting to avoid spread
- Spread out roots when planting
- Plant at same level as 'nursery mark' and firm well

Q2b) The best candidates named a range of herbaceous perennials suitable for use as ground cover. Acceptable answers included:

Alchemilla mollis, Bergenia cordifolia, Epimedium perralderianum, Geranium macrorrhizum, Lamium maculatum, Persicaria affinis.

		MARKS
Q3 a)	List **THREE** ameliorants which can be incorporated into the soil at the time of planting a bare rooted tree	**3**
b)	Describe **ONE** method of staking a newly planted root balled tree.	**3**
c)	Name **FOUR** trees suitable for a domestic garden.	**4**

Q3a) A range of suitable ameliorants for use when planting a bare rooted tree were given by candidates who gained full marks. These included:

- Well-rotted farm yard manure, garden compost or leaf mould
- Grit to improve drainage
- Mycorrhizal fungi
- Fertiliser e.g. Growmore for use as a base dressing

Q3b) Good descriptions of a suitable method of staking a root balled tree were provided by the best candidates who were awarded full marks. Acceptable answers included:

The use of a single short stake inserted at an angle of 45° to avoid damage to the rootball facing into the prevailing wind and tied with a buckle tie and spacer.

Alternatively double or triple stakes can be used with tree bands or double stakes with a cross bar and a tree tie and spacer.

Some candidates answered the question with the use of annotated diagrams which were acceptable.

Q3c) Most candidates were able to name suitable sized trees for a domestic garden and gained maximum marks. These included:

Sorbus 'Joseph Rock', *Amelanchier x grandiflora* 'Ballerina', *Malus x zumi* 'Golden Hornet', *Acer griseum, Prunus x subhirtella* 'Autumnalis', *Cercis canadensis* 'Forest Pansy'.

MARKS

Q4

a) Describe the process of trimming during the routine maintenance of alpine or rock garden plants. **4**

b) Name **THREE** distinct alpine or rock garden plants for **EACH** of the following:

i) spring display **3**
ii) summer display **3**

Q4a) Candidates who gained full marks were able to provide detailed descriptions of trimming alpine plants. These included:

- Timing e.g. after flowering or at the start of the growing season
- Reasons e.g. maintain shape of plant, i.e. reduce size or spread
- Removal of spent flowers, diseased or damaged plant material
- Position of cuts e.g. just above a node or near the base of previous season's growth

Q4b) The majority of candidates were able to name a range of alpine plants suitable for each of the specific times of year and were awarded full marks. Acceptable answers included:

i) **Spring display** – *Pulsatila vulgaris, Phlox subulata, Aubrieta deltoidea, Gentiana verna*

ii) **Summer display** – *Sempervivum arachnoideum, Helianthemum nummularium, Sedum spathulifolium* 'Cape Blanco', *Leontopodium alpinum*

MARKS

Q5 a) Describe the maintenance tasks that should be carried out on a garden pool under **EACH** of the following headings:

i) netting **3**
ii) control of invasive pond weeds **3**

b) Name **FOUR** distinct aquatic plants suitable for growing in a garden pool. **4**

Q5a) Many candidates provided good descriptions of specific maintenance tasks carried out on a garden pool and achieved full marks. Suitable answers included:

i) **Netting** – Plastic netting with small mesh can be positioned safely and securely just above the level of the water during late summer to autumn to prevent fallen leaves from trees entering the pool. These will need to be cleared regularly. The netting will also prevent access to the pool to predators e.g. herons.

ii) **Control of invasive pond weeds** – *Myriophyllum aquaticum* or *Crassula helmii* can be controlled at any time of the year but especially in the autumn. This can be completed by pulling them out by hand, ensuring that the weed is not broken up into small pieces and left at the side of the pool for 24 hours to allow pond life to re-enter the pool. Containers can be lifted or plants removed from the container to enable weed to be removed. Blanket weed can be removed with the use of a rake by winding it around the handle and leaving the weed at the side of the pool.

Q5b) Most candidates were able to name a range of aquatic plants suitable for growing in a garden pond. The best answers which gained maximum marks included:

Nuphar lutea, Stratioides aloides, Caltha palustris, Mentha aquatica, Iris laevigata, Juncus effusus, Nymphaea 'Pygmaea Helvola'.

MARKS

Q6 a) Describe the technique of seeding a new lawn (excluding seed bed preparation). **4**

b) Identify the correct grass species for **EACH** type of lawn by ticking the boxes in the table below; **2**

Name of grass species	**Hard wearing/ Utility lawn**	**High quality ornamental lawn**
Agrostis capillaris		
Festuca rubra commutata		
Lolium perenne		
Poa pratensis		

c) Describe **TWO** symptoms and a suitable method of control for **ONE NAMED** lawn disease. **4**

Q6a) The best candidates provided good descriptions of seeding a new lawn and achieved full marks. Seed is sown evenly at a rate of 35g/m² (range of 25-50g/m²) by sowing broadcast in two directions after dividing the amount of seed in half. It can also be sown using a cyclone spreader before being lightly raked in.

Q6b) Maximum marks were gained by candidates who named the correct grass species for each type of lawn. These included:

High quality ornamental lawn – Agrostis capillaris and Festuca rubra commutata

Hard wearing/utility lawn – Lolium perenne and Poa pratensis

Q6c) Good descriptions of the symptoms and control of lawn diseases were provided by the best candidates who achieved full marks. These included:

Fairy rings – appears as an irregular ring of dead grass gradually expanding across the turf. Immediately adjacent to the dead grass, the grass may be greener than usual. Crops of brown toadstools will be present at specific times of the year

.Fairy rings can be controlled by aeration of the dead patches of grass and the application of wetting agents to break up the water repellent properties of the fungal colony. Digging out and replacing soil to a depth of 30cm in the affected area can also be carried out.

Red thread – Patches of infected grass have a light brown or bleached appearance. A reddish tinge develops as the fungal growth occurs on the blades of grass.

Red thread can be controlled by improving the fertility of the soil with applications of nitrogen fertilisers. Drainage can be improved by aeration and scarification in the autumn. A fungicide e.g. trifloxystrobin can also be used.

Candidates who described the symptoms and control of Fusarium patch were also awarded marks.

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