Including examiner comments

R2111

UNDERSTANDING GARDEN FEATURES, PLANT SELECTION & PLANNING

Level 2

Tuesday 25 June 2019

09:30 – 10:50

Written Examination

Candidate Number: .....

Candidate Name: .....

Centre Number/Name: .....

IMPORTANT – Please read carefully before commencing:

i) The duration of this paper is **80** 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) List **FOUR** distinct garden design planning principles. **4**

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b) Describe how **EACH** of **THREE** principles listed in a) contribute to an effective garden design that 'works'. **6**

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	MARKS
Q2 a) State the meaning of the term 'Risk Assessment'.	**2**

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b) List **FOUR** hazards that can be identified by carrying out an on-site risk assessment in a garden situation.	**4**

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c) State **ONE** distinct method of minimising or eliminating the risk for **EACH** of the hazards identified in b).	**4**

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Total Mark

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MARKS

Q3 a) Describe **THREE NAMED** evergreen shrubs from distinct genera by completing the table below.

Plant name	Planting situation	Decorative merit
1.		
2.		
3.		

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b) Name **ONE** deciduous shrub grown for winter interest in a domestic garden. 1

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Total Mark

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MARKS

Q4 a) List **SIX** distinct characteristics of an English Landscape garden. **6**

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b) State what is meant by the term 'informality' in garden design. **2**

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c) Name **TWO** distinct features associated with informal garden design. **2**

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MARKS

Q5 a) Describe **THREE NAMED** distinct hardy plants grown as annuals suitable for planting in a domestic garden by completing the table below.

Plant name	**Decorative merit**	
1.		**2**
2.		**2**
3.		**2**

b) List **FOUR** distinct garden situations where hardy plants, grown as annuals, can be used effectively. **4**

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Total Mark

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MARKS

Q6 a) Describe the following terms giving a suitable garden situation where **EACH** would be used:

i) pulhamite **3**

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ii) hypertufa **3**

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iii) puddled clay **3**

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b) Name **TWO** types of natural stone used for a rock garden.

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Total Mark

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MARKS

Q7 a) State **TWO** uses for wooden railway sleepers in a garden. **2**

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b) List **FOUR** garden features which can be created by using concrete. **4**

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c) Describe **TWO** examples where garden furniture can be used to help create a cohesive design in a garden. **4**

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MARKS

Q8 a) Name **FOUR** distinct alpine **OR** rock garden plants. **4**

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b) List **FOUR** distinct site requirements for **ONE** of the plants in a). **4**

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c) State **TWO** suitable garden situations, other than in rock gardens, for the effective display of alpine or rock garden plants. **2**

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MARKS

Q9 a) Describe how **FOUR** distinct materials could be re-used or recycled in a new garden scheme. **8**

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b) State **TWO** hazards associated with the use of recycled materials. **2**

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MARKS

Q10 Describe **TWO NAMED** distinct deciduous plants suitable for hedging by completing the table below.

Named plant	Decorative merits	Site requirements
1.		
2.		

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Total Mark

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Inspiring everyone to grow

R2111

UNDERSTANDING GARDEN FEATURES, PLANT SELECTION & PLANNING

Level 2

Tuesday 25 June 2019

Candidates Registered	**573**		**Total Candidates Passed**	**398**	**83%**
Candidates Entered	477	83%	Passed with Commendation	206	43%
Candidates Absent/Withdrawn	85	15%	Passed	192	40%
Candidates Deferred	11	2%	Failed	79	17%

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.

Q1 a) List **FOUR** distinct garden design planning principles. **4**

b) Describe how **EACH** of **THREE** principles listed in a) contribute to an effective garden design that 'works'. **6**

Q1b) Candidates who clearly understood garden planning principles were able to describe how they contribute to an effective garden design that 'works'. Acceptable answers included:

Unity/cohesion is the consistent use of and linking of elements in the garden and also relates to the local environment. All parts of the design form a unified whole, linked by consistent styles, materials, forms or colours in hard landscaping and planting e.g. hard landscape materials can be selected by using a similar brick as that used for the house and is repeated in the edges of paths and walls.

Rhythm is the sense of motion that is created through the placing of repeated elements in the garden and the flow of continuous lines. Rhythm moves the eye through the space by repeating hard landscape elements or plants through the garden or creating flowing lines.

Balance The weight and mass of elements of the design are intrinsically in balance with each other and the garden. This may be achieved through symmetrical balance e.g. identical plant forms placed either side of a central path. It may also be asymmetrically balanced around a central feature e.g. a large tree one side can be balanced with a pergola of a similar size/mass on the other side.

		MARKS
Q2 a)	State the meaning of the term 'Risk Assessment'.	**2**
b)	List **FOUR** hazards that can be identified by carrying out an on-site risk assessment in a garden situation.	**4**
c)	State **ONE** distinct method of minimising or eliminating the risk for **EACH** of the hazards identified in b).	**4**

Q2a) Maximum marks were awarded to candidates who were able to state the meaning of the term 'Risk Assessment'. This is a process whereby the hazards present on site which may cause harm are identified and the likelihood and severity of harm occurring is assessed. Control methods to minimise the risks can also be identified.

Q2b) A range of suitable hazards were provided by candidates that can be identified by carrying out an on-site risk assessment. These included:

- Overhead and underground electrical cables
- Unsafe buildings
- Open water features e.g. ponds
- Steep grassed paths on slopes
- Steps under deciduous trees

Q2c) Most candidates who were able to provide suitable methods to minimise or eliminate the risk for specific hazards gained full marks. These can be achieved through additions or adaptations to the garden situation which retain the garden features. These included:

- The provision of hand rails on steep paths or steps
- The installation of secure fences around ponds or unsafe buildings
- Appropriate placing of signage to alert users of risks e.g. electrical cables and unsafe buildings
- Provision of non-slip coatings on steps, ramps and slippery surfaces

Candidates who gave methods which involved the re-design or elimination of the garden features could not be awarded any marks.

MARKS

Q3 a) Describe **THREE NAMED** evergreen shrubs from distinct genera by completing the table below.

Plant name	Planting situation	Decorative merit	
1.			**3**
2.			**3**
3.			**3**

b) Name **ONE** deciduous shrub grown for winter interest in a domestic garden. **1**

Q3a) A wide range of evergreen shrubs were described by the best candidates who gained maximum marks. Acceptable answers included:

Mahonia aquifolium – has glossy green, slightly prickly leaves which become purplish in winter. It bears large clusters of yellow flowers in spring which are followed by black fruits. It can be used as ground cover under trees.

Rosmarinus officinalis – has linear, leathery dark green leaves which are pale and felted beneath. The flowers which appear from mid spring to early summer are usually a pale violet-blue. It can be planted against a wall.

Buxus sempervirens – is compact with small, glossy oval or oblong leaves and small yellowish flowers in the leaf axils. It can be planted in the front of a border to form a low hedge.

Q3b) The majority of candidates named suitable deciduous shrubs grown for winter interest and were awarded full marks. These included:

Cornus alba 'Sibirica', *Cornus sanguinea* 'Midwinter Fire', *Corylus avellana* 'Contorta', *Hamamelis* x *intermedia* 'Pallida'.

		MARKS
Q4 a)	List **SIX** distinct characteristics of an English Landscape garden.	**6**
b)	State what is meant by the term 'informality' in garden design.	**2**
c)	Name **TWO** distinct features associated with informal garden design.	**2**

Q4a) Candidates who were able to list characteristics of an English Landscape garden gained full marks. Suitable answers included:

Distant vistas, serpentine lakes, Palladian bridges, ha-has, temples, follies, grottos, hermitages, Chinese bridges and pagodas.

Q4b) Marks were awarded to candidates who correctly stated that 'informality' in garden design is:

- the use of winding, irregular and loose shapes for the layout of borders, paths, patios and garden features.
- It includes plants which are allowed to grow to natural and flowing forms reflecting the shapes and style seen in nature.

Q4c) Many candidates were able to name features associated with informal garden design and achieved maximum marks. Acceptable answers included:

- Wildflower meadow
- Rustic bench seat made from logs
- Wildlife pond with marginal planting
- Winding/meandering bark path

MARKS

Q5 a) Describe **THREE NAMED** distinct hardy plants grown as annuals suitable for planting in a domestic garden by completing the table below.

Plant name	**Decorative merit**	
1.		**2**
2.		**2**
3.		**2**

b) List **FOUR** distinct garden situations where hardy plants, grown as annuals, can be used effectively. **4**

Q5a) The best candidates described a range of suitable hardy plants grown as annuals and gained full marks. These included:

Lathyrus odoratus – Climber with winged stems and dark green leaves. Flowers have wine-red petals and purple wings and keels in summer to early autumn.

Calendula officinalis – Has lance-shaped/spoon-shaped softly hairy leaves and daisy-like vivid orange flowers from summer to early autumn.

Nigella damascena – Has ovate, finely divided bright green leaves. Saucer-shaped pale blue flowers which become sky blue with age and are surrounded by a 'ruff' of foliage appear during summer.

Q5b) Candidates who listed garden situations where hardy plants, grown as annuals can be used were awarded full marks. Suitable answers included:

- Filling gaps in herbaceous border
- Drifts of colour in a hardy annual flower bed or cut flower border
- Wild flower meadow
- Pots, containers and hanging baskets

		MARKS
Q6 a)	Describe the following terms giving a suitable garden situation where **EACH** would be used:	
	i) pulhamite	**3**
	ii) hypertufa	**3**
	iii) puddled clay	**3**
b)	Name **TWO** types of natural stone used for a rock garden.	**1**

Q6a) Candidates who understood the specific terms were able to provide good descriptions and achieved maximum marks. Good answers included:

i) **Pulhamite** – is an artificial material used to mimic natural stone/rock features and is made from a mixture of cement, rubble and sand. It was invented in the Victorian era by James Pulham. Pulhamite was used in large scale rock gardens, outcrops, hermits' caves and grottos.

ii) **Hypertufa** – is an artificial substitute for a natural porous rock (tufa) which is made by mixing cement, sharp sand and peat or a peat substitute. The mixture can be used to cover ceramic sinks and containers to imitate natural stone for the display of alpine plants. It can also be used to fashion rock garden boulders by digging a hole in the ground as a mould, filling the hole with the cement mixture and allowing it to set.

iii) **Puddled clay** – is a traditional method used to produce an impermeable lining in a natural pond. Clay soil is mixed with water to a 'puddle' and spread over the area in layers. It is puddled by treading repeatedly over the area to force out the air and compress it into a solid mass.

Q6b) The majority of candidates named suitable types of natural stone e.g. granite, sandstone, limestone, slate, flint and were awarded full marks.

		MARKS
Q7 a)	State **TWO** uses for wooden railway sleepers in a garden.	**2**
b)	List **FOUR** garden features which can be created by using concrete.	**4**
c)	Describe **TWO** examples where garden furniture can be used to help create a cohesive design in a garden.	**4**

Q7a) A range of uses for wooden railway sleepers were provided by candidates who gained full marks. Acceptable answers included:

- Construction of the retaining sides of raised vegetable beds
- The risers of steps with gravel infill for treads
- Edging of a path to retain soil alongside a border
- Retaining wall for a slope

Q7b) Most candidates provided suitable examples of garden features which can be created by using concrete. These included:

Statuary, poured concrete paths, bench seats, walling blocks, steps, fountains, pools, planters.

Q7c) To achieve full marks for this section of the question it was important that candidates included types of garden furniture that can be used to create a cohesive design in their answers. These included:

- Cohesion can be achieved through matching a single colour through, hard landscaping, plants and furniture e.g. using a blue painted timber bench with fences painted the same colour and blue flowers in the planting
- Garden furniture can be cohesive with the style of the garden e.g. in a cottage garden a simple bench made from logs and timber with the bark intact can be placed under a natural hazel arbour

Additional examples included: park style bench in a formal setting, aluminium/resin chairs and tables in a contemporary design, bamboo/rattan furniture with a Japanese/Eastern influence.

		MARKS
Q8 a)	Name **FOUR** distinct alpine **OR** rock garden plants.	**4**
	List **FOUR** distinct site requirements for **ONE** of the plants in a).	**4**
	State **TWO** suitable garden situations, other than in rock gardens, for the effective display of alpine or rock garden plants.	**2**

Q8a) Most candidates were able to name a suitable range of alpine/rock garden plants. These included:

Dianthus alpinus, Sempervivum arachnoideum, Lewisia cotyledon, Gentiana acaulis, Iberis sempervirens, Echeveria elegans.

Q8b) Candidates who listed the specific site requirements for a named plant gained maximum marks. Acceptable answers included:

Dianthus alpinus

- Well drained soil
- Exposed or sheltered situation
- Alkaline to neutral pH
- Open, sunny, south or west facing site

Additional requirements of alpine plants include; Shelter from rain, free from atmospheric pollution, shelter from damp cold, free draining soil.

Q8c) The majority of candidates gave a range of garden situations which are suitable to display alpine plants. These included:

- Cracks in dry stone walls
- Unheated alpine glasshouse
- Scree or crevice garden
- Troughs/pots/containers

		MARKS
Q9 a)	Describe how **FOUR** distinct materials could be re-used or recycled in a new garden scheme.	**8**
b)	State **TWO** hazards associated with the use of recycled materials.	**2**

Q9a) Full marks were achieved by candidates who provided good descriptions of specific materials that could be re-used or recycled in a new garden scheme. These included:

- Pallets used to deliver garden materials can be used to construct the sides of a compost bay
- Clay bricks from a demolished wall can be used to build the walls of a cold frame
- Broken concrete slabs from an old patio can be broken up and used as a sub-base for a new patio
- Timber boards from a dismantled deck area can be used to create border edging for vegetable beds

Q9b) Candidates who were able to provide hazards associated with the use of specific materials were awarded maximum marks. Acceptable answers included:

- Splinters from reclaimed timber boards could pierce the skin and cause infection
- Crumbling clay bricks or sandstone could have sharp edges causing skin abrasions
- Lifting/carrying heavy materials e.g. statues could cause strains and sprains
- Rusty nails which pierce the skin could cause tetanus

MARKS

Q10 Describe **TWO NAMED** distinct deciduous plants suitable for hedging by completing the table below.

Named plant	Decorative merits	Site requirements	
1.			**5**
2.			**5**

Q10) To gain full marks it was important that candidates provided specific details for each of the hedging plants. The best answers included:

Named Plant	Decorative merits	Site requirements
Fagus sylvatica	Leaves are yellow-green in spring and rich russet-brown in autumn. These are held through the winter Bristly fruits in autumn	Moist, but well drained soil Full sun or part shade
Crataegus monogyna	Glossy, deep lobed leaves Flat sprays of cream flowers in spring OR Dark red fruits in autumn	Moist, but well drained soil Full sun or part shade

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