



R2111

**UNDERSTANDING GARDEN FEATURES, PLANT SELECTION
& PLANNING**

Level 2

Tuesday 6 February 2018

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

- i) site appraisal;
- ii) site survey.

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i).....
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b) Describe how **TWO NAMED** problems related to restricted site access may affect the garden design.

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Total Mark

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MARKS

Q3 Describe **FIVE NAMED** bulbs, corms **OR** tuberous plants from distinct genera that can be used for summer or autumn interest by completing the table below.

Plant name	Decorative merits

2**2****2****2****2**

Total Mark

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Q4 a) Describe **TWO** distinct differences between formality and informality in garden design by completing the table below.

Feature	Formal	Informal
Water features		
Soft landscaping		

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b) Name **TWO** distinct types of bridge **AND/OR** temple typically found in an English landscape garden.

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Total Mark

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MARKS

Q5 a) State **TWO** distinct ways in which natural wood may be used in the construction of a pathway.

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b) Describe **TWO** limitations of wood for **EACH** of the examples stated in a), giving an alternative material for **EACH**.

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Q6 a) List **SEVEN** reasons for selecting species of trees or shrubs for a domestic garden.

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b) State the specific type of lawn for which each of the following grass species mixes would be used:

- i) *Agrostis capillaris*; *Festuca rubra* subsp. *commutata*; 1
- ii) *Festuca rubra rubra*; *Poa nemoralis*; *Poa trivialis*; 1
- iii) *Lolium perenne*; *Poa pratensis*. 1

i).....

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Total Mark

MARKS

Q8 a) Describe **TWO** distinct locations for **ONE NAMED** garden feature that can result in hazards for garden users.

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b) State **THREE** ways of minimising the risks associated with **ONE** of the locations given in a).

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c) Name **TWO** specific hazards associated with electricity in a domestic garden.

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MARKS

Q10a List **TWO** specific hazards associated with plants.

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b) State **TWO** ways in which hazardous plants can be incorporated into a garden design with minimal risk to garden users.

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c) Name **TWO** ornamental plants that may be considered hazardous, identifying **ONE** risk associated with **EACH**.

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Total Mark

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

R2111

UNDERSTANDING GARDEN FEATURES, PLANT SELECTION & PLANNING

Level 2

Tuesday 6 February 2018

Candidates Registered	824		Total Candidates Passed	590	87.02%
Candidates Entered	678	82.28%	Passed with Commendation	294	43.36%
Candidates Absent/Withdrawn	130	15.78%	Passed	296	43.66%
Candidates Deferred	16	1.94%	Failed	88	12.98%

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 what is meant by **EACH** of the following:

- i) site appraisal;
- ii) site survey.

2
2

b) Describe how **TWO NAMED** problems related to restricted site access may affect the garden design.

6

Q1a) Candidates who were able to state the meaning of the specific terms gained maximum marks. Acceptable answers included;

- i) **Site Appraisal** is a visit to a site to gain physical information about the site which is recorded/written down for use later. Examples include; soil pH, soil type, aspect, microclimate, drainage, views etc.
- ii) **Site Survey** is a detailed site investigation where accurate measurements are taken and recorded from which plans and designs can be drawn. A risk assessment is carried out, overhead and underground services are mapped and any features which are to be retained in the design are identified.

Q1b) Many candidates provided good descriptions of how problems related to restricted access may affect a garden design. The best answers included;

- Access may only be possible through the house preventing or restricting the use of machinery
- Access may be restricted due to its' width which would prevent the passage of large items e.g. hard landscape materials, features, plants and garden buildings. These would have to be delivered as small components and assembled on site. Plants would need to be purchased in smaller pot sizes, a butyl liner would be preferable to a large pre-formed pond and seeding a lawn would be easier than using turf

Candidates who described problems related to restricted access during construction could not be awarded any marks.

	MARKS
Q2 a) <i>State what is meant by a garden planning principle.</i>	2
b) <i>Describe FOUR distinct ways by which movement/direction can be encouraged by garden design.</i>	8

Q2a) Most candidates clearly understood what is meant by a garden planning principle and were awarded full marks. Suitable answers included;

A garden design principle is one of a number of widely recognised design concepts that follow accepted rules and conventions aimed at producing designs that ‘work’ and are pleasing to the eye.

Q2b) Candidates who described both the feature/element and also the way in which it created movement/direction gained maximum marks. Acceptable answers included;

- The use of focal points to encourage visitors to walk towards it
- Straight pathways for direct access to an area containing garden furniture
- A winding pathway leading behind shrubs or hedges to encourage people to see what is there
- Grasses/bamboos moving in the wind to attract the eye
- Plants moving/swaying and creating a rustling noise
- Water/fountains to create movement in themselves and to create sound to attract visitors

Q3 Describe **FIVE NAMED** bulbs, corms **OR** tuberous plants from distinct genera that can be used for summer or autumn interest by completing the table below.

<i>Plant name</i>	<i>Decorative merits</i>

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Q3) Marks were awarded to candidates who named and provided the decorative merits for a range of bulbs, corms or tuberous plants that can be used for summer or autumn interest. Appropriate examples included;

Colchicum autumnale has lavender-pink flowers in autumn and strap-like foliage after the flowers.

Cyclamen hederifolium the flowers have nodding heads of five light pink petals and ivy –shaped foliage with silvery patterns

***Dahlia* ‘Bishop of Llandaff’** has semi-double scarlet flowers and deep blackish –red foliage

Nerine bowdenii has open umbels of funnel-shaped pink flowers with recurved wavy tepals

Crocsmia x crocosmiiflora has thin, slightly arching spikes of orange or yellow flowers

Candidates who named examples of plants that were of interest during winter and spring could not be awarded any marks.

Q4 a) Describe **TWO** distinct differences between formality and informality in garden design by completing the table below.

Feature	Formal	Informal
Water features		
Soft landscaping		

4

4

b) Name **TWO** distinct types of bridge **AND/OR** temple typically found in an English landscape garden.

2

Q4a) Candidates who included the following differences between formality and informality in garden design in their descriptions of specific features gained maximum marks. These included;

Formal Water Features are geometric in shape, circular, rectangular, raised or surrounded with dressed stone which can act as a seat. They may have a central classical or sculptural fountain and lack planting or just have a single *Nymphaea*.

Informal Water Features will have a natural, asymmetric or serpentine shape with indistinct edges made from hidden materials, rocks, logs or plantings. It may be a wildlife pond with shallow margins for entry of frogs and mixed planting of deep water, marginal and bog plants.

Formal Soft Landscaping can include topiary of *Taxus baccata* in the form of large cones in matched pairs i.e. mirror image along a pathway leading to a focal point.

Informal Soft Landscaping can include prairie style planting of mixed grasses and perennials set out in a large border with serpentine edges. Alternatively mixed colours in a cottage garden, wildflower meadows and plants to encourage wildlife were also acceptable.

Q4b) The majority of candidates were able to name distinct types of bridge and temple and gained full marks. Acceptable answers included;

Palladian or Chinese bridge, Greek, Roman or Gothic temple.

	MARKS
Q5 a) State TWO distinct ways in which natural wood may be used in the construction of a pathway.	2
b) Describe TWO limitations of wood for EACH of the examples stated in a), giving an alternative material for EACH .	8

Q5a) A range of ways in which natural wood can be used for a pathway were provided by candidates who were awarded full marks. These included;

- Grooved decking boards as a walkway
- Log cross sections used as stepping stones
- Planking set vertically into the ground to act as edging
- Rough poles/logs with bark laid on surface to edge woodland paths
- Bark chippings as a surface on a path

Q5b) The best candidates provided good descriptions of the limitations of wood and suitable alternative materials and were awarded full marks. Acceptable answers included;

- Grooved decking boards used as a walkway can become very slippery especially if they are under trees or become wet. They require on-going maintenance and health and safety checks. Artificial decking materials e.g. re-cycled plastic composites with built in slip resistance which are also rot resistant are a good alternative material
- Log cross sections used as stepping stones become very slippery when wet. They are relatively short-lived especially in wet ground conditions. Realistic artificial log sections made of re-constituted stone or other composites which do not rot and have a rough, non-slip surface are suitable as an alternative material

Additional alternative materials which were acceptable included; clay bricks, blocks, resin stepping stones, concrete or tile edging.

Q6 a) List **SEVEN** reasons for selecting species of trees or shrubs for a domestic garden.

7

b) State the specific type of lawn for which each of the following grass species mixes would be used:

- i) *Agrostis capillaris*; *Festuca rubra* subsp. *commutata*;
- ii) *Festuca rubra rubra*; *Poa nemoralis*; *Poa trivialis*;
- iii) *Lolium perenne*; *Poa pratensis*.

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Q6a) Most candidates were able to list a range of reasons for selecting species of trees and shrubs for a domestic garden and gained maximum marks. Suitable answers included;

Spring flowers, autumn fruits, autumn foliage of colour, decorative form, coloured or textured bark, height and spread, interest for wildlife, texture of foliage and scent of flowers or foliage.

Q6b) Candidates who were able to state the specific type of lawn for the grass species listed gained full marks. These were;

- i) Ornamental/high quality lawn
- ii) Shade tolerant lawn or one where shade is created by tree cover
- iii) Utility/hard wearing lawn

	MARKS
Q7 a) State THREE distinct considerations in the selection of hard and soft landscaping elements to give a cohesive design.	6
b) Describe how ONE NAMED hard AND ONE NAMED soft landscape feature can contribute to a cohesive design.	4

Q7a) Maximum marks were awarded to candidates who identified appropriate elements and then stated their contribution to a cohesive design. Suitable answers included;

- Use of bricks in the pathway or walls that match the brickwork of the house
- Use of the same paving throughout the garden, e.g. Yorkstone
- Repetition of colour for wooden features, e.g. seating, arbours and fencing
- Formal close mown lawn to complement parterres

Q7b) Most candidates described a range of hard and soft landscape features that can contribute to a cohesive design and gained full marks. Acceptable answers included;

- Focal point linking with other statuary in the garden
- Cotswold stone pathway of the same material as the house
- A Lutyens style bench included in an Arts and Crafts garden
- Picket fence in a cottage garden
- The texture of topiary reflected in the surrounding hedges

	MARKS
Q8 a) Describe TWO distinct locations for ONE NAMED garden feature that can result in hazards for garden users.	5
b) State THREE ways of minimising the risks associated with ONE of the locations given in a).	3
c) Name TWO specific hazards associated with electricity in a domestic garden.	2

Q8a) Candidates mostly described ponds and pathways as garden features that can result in hazards for garden users. Suitable descriptions which were awarded full marks included;

- A garden pond located at the bottom of a slope where people could slide on the slope and fall in
- A pond in a children's play area where they could fall in
- A pathway under trees where a person could trip on an uneven surface or slip on fallen leaves
- A water feature near a path or decking could create spray and cause people to slip

Q8b) Candidates stated a range of acceptable ways of minimising the risks associated with the locations of garden features. These included;

- Barriers or fences can be erected to prevent access to a pond, a metal grid can be placed over the pond or the slope can be terraced to prevent anyone falling in
- Design a winding path with a handrail, use textured materials or construct steps to provide safe access down a slope

Q8c) The majority of candidates were able to name hazards associated with electricity in a domestic garden and gained full marks. Acceptable answers included;

- Unidentified underground cables or those that are damaged when digging
- Low overhead cables which could be hit when operating machinery
- Electric mowers/strimmers with faulty wiring
- Damaged outdoor sockets
- Cables trailing through hedges

	MARKS
Q9 a) <i>Explain what is meant by the environmental sustainability of landscaping materials.</i>	2
b) <i>State how THREE distinct NAMED landscaping materials used in a garden design can be environmentally sustainable.</i>	6
c) <i>State ONE example of a sustainable practice that can be carried out during garden construction.</i>	2

Q9a) Candidates who explained that environmental sustainability involves meeting human needs without compromising the health of ecosystems and provided suitable examples were awarded full marks. Acceptable examples included; choice of materials from sustainable sources, minimising the use of transport, reduce, re-use, reclaim and recycle wherever possible and avoid manufacturing in ways which damage the environment.

Q9b) Most candidates were able to state how specific landscaping materials can be environmentally sustainable and gained full marks. Suitable answers included;

- Purchasing timber, planks or decking which carries the FSC logo (Forestry Stewardship Council) which certifies that timber comes from sustainably managed forests
- Using materials from a reclamation yard e.g. clay and engineering bricks or flagstones is beneficial as high levels of energy are used in their manufacture. The supplier will also be more local reducing the need for materials to be transported long distances
- Materials that are already on site can also be used e.g. stone from an old rock garden or rubble from a disused building

Q9c) A range of sustainable practices that can be carried out during garden construction were stated by candidates who gained maximum marks. Acceptable answers included;

- Careful use of electricity or water by turning taps off when not in use
- Re-using onsite old bricks or concrete as a hardcore base
- Storing onsite excavated soil and re-using it
- Keeping top soil and subsoil separate to avoid the need to purchase additional topsoil

	MARKS
Q10a List TWO specific hazards associated with plants.	2
b) State TWO ways in which hazardous plants can be incorporated into a garden design with minimal risk to garden users.	4
c) Name TWO ornamental plants that may be considered hazardous, identifying ONE risk associated with EACH .	4

10a) The majority of candidates were able to list a range of hazards associated with plants and were awarded full marks. These included;

Prickles, thorns, spines, irritant hairs or sap and toxic parts of plants.

Q10b) Candidates who provided specific ways in which hazardous plants can be incorporated into a garden design gained maximum marks. Suitable answers included;

- Plants with thorns and prickles must be planted at the back of a border to avoid accidental contact
- Create a decorative fenced off area to keep visitors away from the plants
- Inform adults and children of the risks associated with specific plants by the use of signage or red labels

Q10c) The best candidates named appropriate plants which are considered hazardous and gave one risk associated with each. Acceptable answers which gained full marks included;

- *Euphorbia amygdaloides* – skin or eyes may be irritated by the sap
- *Yucca gloriosa* – skin or eyes may be punctured by leaf tip spines
- *Convallaria majalis* – children may be poisoned if they ingest plant material
