R2111
UNDERSTANDING GARDEN FEATURES, PLANT SELECTION & PLANNING
Level 2
Tuesday 12 February 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.
Q1 a) Describe how to use running measurements along a defined base line for a garden survey.

b) Describe how to overcome **TWO NAMED** potential restrictions which can limit work on a garden site.
Q2 a) State **ONE** hazard of a **NAMED** garden material.

b) State **TWO** reasons why **EACH** of the following existing garden features should be included in a risk assessment, by completing the table below:

<table>
<thead>
<tr>
<th>Existing garden features</th>
<th>Reason for risk assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stone fountain</td>
<td>1.</td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>Specimen tree</td>
<td>1.</td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
<tr>
<td>Garden wall</td>
<td>1.</td>
</tr>
<tr>
<td></td>
<td>2.</td>
</tr>
</tbody>
</table>

c) State **ONE** method of minimising a **NAMED** risk associated with garden ramps.

---

MARKS

| Q2 a) | 2 |
| Q2 b) | 2 |
| Q2 c) | 2 |

Total Mark

Please turn over/.....
Q3 a) State what is meant by EACH of the following garden planning principles:

i) form;
ii) rhythm.

b) Name TWO features used in a cottage garden to create a feeling of informality.

c) Describe the methods of using colour in a garden to provide unity.
Q4  a) Name FOUR materials that can be used in the construction of a patio.

b) State ONE distinct benefit and ONE distinct limitation (excluding costs) for TWO of the materials named in a), by completing the table below:

<table>
<thead>
<tr>
<th>Material</th>
<th>Benefit</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

c) Name TWO horizontal hard landscape elements, excluding a patio that can be found in a garden situation.

Please turn over/.....
Name **FIVE** distinct patio or basket plants, giving **ONE** decorative merit for **EACH**, by completing the table below:

<table>
<thead>
<tr>
<th>Plant name</th>
<th>Decorative merit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
</tbody>
</table>

**Total Mark**
a) Describe **TWO** distinct ways in which the use of hard landscape materials can create cohesion in a garden.

b) Name **THREE** vertical elements which can be constructed in a garden, stating **ONE** distinct use for **EACH**, by completing the table below:

<table>
<thead>
<tr>
<th>Vertical element</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
</tbody>
</table>

**Total Mark**
Name **FIVE** bulbs, corms or tuberous plants from distinct genera that can be used for winter or spring interest, giving **ONE** decorative merit for **EACH**, by completing the table below:

<table>
<thead>
<tr>
<th>Plant name</th>
<th>Decorative merit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
</tbody>
</table>

Please see over/.....
Q8 a) Name ONE suitable construction material for EACH of the garden elements below:
   i) path;
   ii) wall.

   i) .................................................................

   ii) .................................................................

b) Describe TWO distinct sustainability considerations for EACH of the materials named in a).

   ..............................................................................

   ..............................................................................

   ..............................................................................

   ..............................................................................
Q9 a) State **THREE** distinct differences between formal and informal garden designs.

b) Describe **ONE NAMED** water feature that can be included in a domestic garden.
Q10 a) Describe **FOUR NAMED** evergreen shrubs from different genera by completing the table below:

<table>
<thead>
<tr>
<th>Name of evergreen shrub</th>
<th>Decorative merit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
</tbody>
</table>

b) Name **TWO** distinct deciduous trees/large shrubs suitable for planting in a domestic garden.
R2111
UNDERSTANDING GARDEN FEATURES, PLANT SELECTION & PLANNING

Level 2

Tuesday 12 February 2019

<table>
<thead>
<tr>
<th>Candidates Registered</th>
<th>679</th>
<th>Total Candidates Passed</th>
<th>527</th>
<th>90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candidates Entered</td>
<td>584</td>
<td>Passed with Commendation</td>
<td>318</td>
<td>54%</td>
</tr>
<tr>
<td>Candidates Absent/Withdrawn</td>
<td>85</td>
<td>Passed</td>
<td>209</td>
<td>36%</td>
</tr>
<tr>
<td>Candidates Deferred</td>
<td>10</td>
<td>Failed</td>
<td>57</td>
<td>10%</td>
</tr>
</tbody>
</table>

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.
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.

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.

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.

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.

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) Describe how to use running measurements along a defined base line for a garden survey.

b) Describe how to overcome TWO NAMED potential restrictions which can limit work on a garden site.

Q1a) Candidates who gained full marks were able to describe the use of running measurements for a garden survey. Suitable answers included descriptions with the use of a diagram. The process commences with a baseline between two fixed points and with cumulative measurements taken to show the position of doors, windows etc. along its length. This includes the points from which offsets are taken. Details of offsets, triangulation and the equipment used were not required.

Q1b) Most candidates were able to name potential restrictions which can limit work on a garden site e.g. access, financial, weather, tree preservation orders, topography, legal. The best candidates provided good descriptions which included:

Access – issues with delivery and removal of materials e.g. machinery which may need to be delivered over a wall or fence or through a neighbours garden. Smaller plants may need to be planted and grown on, a lawn may need to be established from seed and not turf, and a butyl liner may need to be used instead of a pre-formed fibre glass pond.

Financial – work may need to be spread over one to three years and strict budgeting put in place to allow for a reserve fund for unexpected issues during the work. Smaller plants and reclaimed materials can be used which will be cheaper.
Q2 a) State ONE hazard of a NAMED garden material.

b) State TWO reasons why EACH of the following existing garden features should be included in a risk assessment, by completing the table below:

<table>
<thead>
<tr>
<th>Existing garden features</th>
<th>Reason for risk assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stone fountain</td>
<td>1. Checking for the condition; any damage, cracks, fractures, any maintenance issues causing a hazard</td>
</tr>
<tr>
<td></td>
<td>2. Risks associated with electricity to power the pump</td>
</tr>
<tr>
<td>Specimen tree</td>
<td>1. Evidence of disease, fungal growth e.g. honey fungus, causing future problems</td>
</tr>
<tr>
<td></td>
<td>2. Roots from mature trees growing above ground in areas where people are walking</td>
</tr>
<tr>
<td>Garden wall</td>
<td>1. Evidence of instability due to poor foundations</td>
</tr>
<tr>
<td></td>
<td>2. Crumbling mortar; loose or missing bricks</td>
</tr>
</tbody>
</table>

c) State ONE method of minimising a NAMED risk associated with garden ramps.

Q2a) A range of garden materials and associated hazards were provided by many candidates who were awarded full marks e.g. wood can be slippery when wet, concrete is hazardous to handle and stone is heavy.

Q2b) Many candidates clearly understood the purpose of a risk assessment and were able to state the need for specific garden features to be included in one. Suitable answers were:

**Stone fountain**
- Checking for the condition; any damage, cracks, fractures, any maintenance issues causing a hazard
- Risks associated with electricity to power the pump

**Specimen tree**
- Evidence of disease, fungal growth e.g. honey fungus, causing future problems
- Roots from mature trees growing above ground in areas where people are walking

**Garden wall**
- Evidence of instability due to poor foundations
- Crumbling mortar; loose or missing bricks

Q2c) Candidates who clearly understood that risk is the likelihood of the actual harm occurring e.g. slipping on the ramp which could cause a sprained ankle, cuts, bruises or broken bones gained maximum marks. A suitable method of minimising this risk would be to have grip strips fitted if the ramp was wood, rough concrete or riven paving.
State what is meant by EACH of the following garden planning principles:

i) form;
ii) rhythm.

b) Name TWO features used in a cottage garden to create a feeling of informality.

c) Describe the methods of using colour in a garden to provide unity.

Full marks were awarded to those candidates who were able to state the meaning of specific garden planning principles. Acceptable answers included:

i) **Form** - is related to both the outline shape of the individual elements of garden features and their three dimensional shape, e.g. the placing of columnar, fastigiated or weeping forms of trees, plants or hard landscape features.

ii) **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 by creating flowing lines.

The best candidates were able to name specific features used in a cottage garden to create a feeling of informality and gained maximum marks. These included:

- Informal beds with ornamentals and edibles
- Plants flowing over pathways to give a naturalistic feel
- Picket fencing
- Seating and structures e.g. arbour, plant obelisk rustic in style
- Bench made from sawn logs with the bark retained and a recycled timber plank

Marks were awarded to candidates who provided good descriptions of using colour in a garden to provide unity. Suitable answers included:

- Use of a simple palette of harmonising colour repeated throughout the garden, e.g. pale pinks and whites used in plants in all borders
- Use of a repeated colour to paint all timber in the garden, e.g. furniture, gazebo or fences, which is repeated in the planting
- Creating a colour themed garden, e.g. the white garden at Sissinghurst or hot colours in a tropical style garden
Q4a) Name **FOUR** materials that can be used in the construction of a patio.

b) State **ONE** distinct benefit and **ONE** distinct limitation (excluding costs) for **TWO** of the materials named in a), by completing the table below:

<table>
<thead>
<tr>
<th>Material</th>
<th>Benefit</th>
<th>Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In situ poured concrete</td>
<td>Can be poured to fit irregular shapes</td>
<td>The high environmental costs of the production of cement</td>
</tr>
<tr>
<td>2. Softwood timber deck boards</td>
<td>Can be sourced from sustainable FSC approved sources</td>
<td>Can rot over time and require annual maintenance to prevent the surface becoming slippery</td>
</tr>
</tbody>
</table>

c) Name **TWO** horizontal hard landscape elements, excluding a patio that can be found in a garden situation.

Q4a) The majority of candidates named a range of suitable materials for use in the construction of a patio. These included: manufactured materials e.g. paving slabs, in situ concrete, pavers, gravel, blocks and natural materials e.g. Yorkstone, flagstone, sandstone, softwood timber deck boards.

Q4b) To gain full marks for this section of the question it was important that candidates provided distinct benefits and limitations of the materials. Acceptable answers included:

Q4c) Candidates named a range of horizontal hard landscape elements e.g. path, patio, steps, decking and were awarded full marks.

Candidates who named vertical elements could not be awarded any marks.
**Q5** Name **FIVE** distinct patio or basket plants, giving **ONE** decorative merit for **EACH**, by completing the table below:

<table>
<thead>
<tr>
<th>Plant name</th>
<th>Decorative merit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
</tr>
</tbody>
</table>

**Q5** A wide range of suitable plants and their decorative merits were named by candidates who gained maximum marks. These included:

- **Lobelia erinus** ‘Cambridge Blue’ – low hummock of narrow foliage with clear light blue, two-lipped flowers.

- **Fuchsia** ‘Thalia’ – dark olive-green leaves, tinged purple beneath, with clusters of pendent bright orange-red flowers.

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

- **Begonia semperflorens** – fleshy, rounded, green or bronze leaves and sprays of single or double, red, pink or white flowers.

- **Helichrysum petiolare** – white stems bearing broadly ovate, grey, hairy, evergreen leaves, and small dull white flower heads.

Candidates are reminded that decorative merits include: leaf shape and colour, flower shape and colour, fruit colour and growth habit. Scent is not acceptable as a decorative merit.
Q6 a) Describe TWO distinct ways in which the use of hard landscape materials can create cohesion in a garden.

b) Name THREE vertical elements which can be constructed in a garden, stating ONE distinct use for EACH, by completing the table below:

<table>
<thead>
<tr>
<th>Vertical element</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
</tbody>
</table>

Q6a) Most candidates were able to describe ways in which hard landscape materials can create cohesion in a garden. Acceptable answers which were awarded full marks included:

- The use of consistent materials i.e. those used in the construction of the house repeated in garden features e.g. a red brick terraced house where the same bricks are used to construct path edges and raised beds
- The use of materials found in the surrounding location, e.g. in a Welsh garden using slate for the patio surface or slate chippings as a border mulch
- The colour or shape of windows in a house being replicated in the colour or shape of garden furniture
- Using materials in keeping with the style of the garden e.g. rustic in a cottage garden or Japanese style hard landscaping

Q6b) Candidates who named suitable vertical elements which can be constructed in a garden achieved full marks. These included:

**Walls** – for marking a garden boundary, retaining wall or raised beds.

**Screen** – trellis to screen garden areas, to hide an unsightly object, privacy or to grow climbing plants.

**Pergola** – provide shade for a seating area or to grow plants on.

**Statues** – to provide a focal point in a formal garden.
The majority of candidates named a range of suitable plants for winter and spring interest and gained maximum marks. Suitable examples included:

*Narcissus ‘Tête-à-tête’* – dwarf narcissus with 1-3 bright yellow flowers with slightly reflexed petals in early spring.

*Tulipa ‘Queen of Night’* – glossy, dark purple to maroon cup-shaped flowers.

*Crocus tommasinianus* – long-tubed flowers, lilac to deep purple in colour which appear in early spring, narrow green leaves with a white stripe.

*Cyclamen coum* – rounded leaves which are sometimes marbled with silver on the upper surface. Flowers deep pink, with a purple blotch at the base of each lobe.

*Fritillaria meleagris* – pendent white and pinkish-purple bell-shaped flowers with distinctive checkerboard markings on slender stems.

Candidates who named plants for interest in summer or autumn or those that were rhizomatous could not be awarded any marks.
**Q8 a)** Name **ONE** suitable construction material for **EACH** of the garden elements below:

i) path;

ii) wall.

**b)** Describe **TWO** distinct sustainability considerations for **EACH** of the materials named in a).

---

**Q8a)** A range of suitable materials for the specific garden elements were named by most candidates who gained full marks. These included:

i) **Path** – Yorkstone paving, Limestone paving, gravel, concrete paving slabs, bark chippings, timber decking.

ii) **Wall** – rough cut sandstone, reconstituted concrete blocks, reclaimed or engineering bricks.

**Q8b)** Candidates who clearly understood that sustainability refers to the concept of using specific practices so that natural resources are not exhausted and without causing environmental damage now and in the future provided good descriptions and gained full marks. Acceptable answers included:

**Yorkstone paving** – potential damage to the environment through the extraction of the material and damage or depletion of habitats for wildlife. Transporting materials long distances uses fossil fuels and produces pollution where a more local material could be sourced and used.

**Rough cut sandstone** – to avoid quarrying, a source of re-claimed material could be found. The material could be used for dry-stone walling to avoid the use of cement which uses a lot of energy in its production.
Q9 a) State THREE distinct differences between formal and informal garden designs.

b) Describe ONE NAMED water feature that can be included in a domestic garden.

Q9a) The best candidates were able to clearly state the differences between formal and informal garden designs and were awarded full marks. These included:

- Formal paths are laid out in straight lines with $90^\circ$ turns and geometric shapes to the borders whereas informal paths are more winding and serpentine with irregular shaped borders
- Planting in formal gardens uses a limited range of geometrically clipped evergreen shrubs whereas in an informal garden the planting uses a wide range of plant types mixed together, spilling onto the paths and self-seeding
- Water features in a formal design could include a rill, stone fountain of classical stone stature in a geometric square or circle stone edged pool whereas informal water features could include a serpentine curved wildlife pond with planting around the edge or a meandering stream over naturalistically placed rocks and planting

Q9b) Candidates provided good descriptions for a range of water features and were awarded maximum marks. These included: wildlife pond, self-contained pebble fountain, rill and ornamental pond.

Wildlife pond – created by using a butyl rubber liner and providing shelves for native aquatic plants and sloping sides with shallow areas for wildlife to enter and exit.

Self- contained pebble fountain – is created by placing a water reservoir e.g. a stone trough on a patio which contains a pump powered by a solar panel. A metal grill is placed over the trough and covered with pebbles. Water is pumped from the trough through the pebbles, to return to the reservoir.
**Q10a)** Describe **FOUR NAMED** evergreen shrubs from different genera by completing the table below:

<table>
<thead>
<tr>
<th>Name of evergreen shrub</th>
<th>Decorative merit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
</tr>
</tbody>
</table>

2

2

2

2

b) Name **TWO** distinct deciduous trees/large shrubs suitable for planting in a domestic garden.

**Q10a)** The majority of candidates provided good descriptions of a range of evergreen shrubs and achieved maximum marks. Suitable answers included:

*Pyracantha ‘Orange Glow’* – oblong, glossy, dark green leaves and clusters of small white flowers in early summer which are followed by bright orange fruits.

*Buxus sempervirens* – small, deep green, glossy, oval or oblong leaves.

*Euonymus fortunei ‘Silver Queen’* – dark green, ovate leaves with white margins which are often tinged pink.

*Daphne odora ‘Aureomarginata’* – Leathery dark green leaves, narrowly edged with yellow. Clusters of purplish-pink flowers with white centres in early spring.

**Q10b)** Many candidates named suitable deciduous trees/large shrubs and gained full marks. These included:

*Cercis canadensis, Amelanchier x grandiflora, Prunus x subhirtella ‘Autumnalis’, Prunus serrula, Acer griseum, Malus x zumi ‘Golden Hornet’, Malus floribunda, Pyrus salicifolia.*

Candidates who named evergreen trees or trees over 12m in height could not be awarded any marks.

******

24