



R2111

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

Level 2

Tuesday 28 June 2011

9.30 – 10.30

Written Examination

Candidate Number:

Candidate Name:

Centre Number/Name:

IMPORTANT – Please read carefully before commencing:

- i) The duration of this paper is **60 minutes**;
- ii) **ALL** questions should be attempted;
- iii) **EACH** question carries **10 marks**;
- iv) Write your answers legibly in the spaces provided;
- v) Use metric measurements only;
- vi) Where plant names are required, they should include genus, species and where appropriate, cultivar.

Answer all questions

Marks

1. a) State **ONE** risk associated with **EACH** of the following hazards in a garden situation:

- | | | |
|------|---------------------------------|----------|
| i) | unsafe buildings; | 1 |
| ii) | ponds; | 1 |
| iii) | overhead or underground cables; | 1 |
| iv) | slopes and undulating ground. | 1 |

- [illegible]

- b) Describe **THREE** potential restrictions which may limit work on the site of a new garden.

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- This image shows a full page of white paper with horizontal dashed lines, typical of primary school writing paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Total Mark

Please see over

2. a) State what needs to be recorded in a site appraisal under **EACH** of the following headings:

- | | | |
|------|------------|---|
| i) | soil type; | 2 |
| ii) | aspect; | 2 |
| iii) | exposure. | 2 |

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- b) Describe how to collect information on:

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|-----|------------|---|
| i) | soil type; | 2 |
| ii) | exposure. | 2 |

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5. a) Describe **TWO** horizontal hard landscape features used in garden planning.

[illegible]

- b) Name **ONE** suitable material which could be used for **EACH** feature identified in a), and state its benefits and limitations.

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6. a) Name **TWO** evergreen and **TWO** deciduous trees or large shrubs.

[illegible]

- b) Describe **ONE** evergreen and **ONE** deciduous tree/shrub named in a), under the following headings:

- i) decorative merits;
- ii) height and spread.

This image shows a full page of a notebook or worksheet template. It consists of a white background with approximately 20 evenly spaced, horizontal dashed lines running across the entire width of the page. These lines are intended to guide handwriting practice or provide space for notes. There are no margins, text, or other markings present on the page.

Total Mark

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7. a) List **FIVE** distinct garden situations where herbaceous perennials can be used effectively.

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- b) For **EACH** of the situations named in a), identify **ONE** suitable **NAMED** herbaceous perennial.

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8. a) Name **FIVE** patio or basket plants suitable for a sunny situation.

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- b) Give **ONE** decorative merit for **EACH** plant named in a).

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9. a) Name **TWO** distinct hazards associated with plants giving a **NAMED** plant example for **EACH** hazard.

[illegible]

- b) For **EACH** hazard named in a), state the associated risk and describe how these may be minimised in garden planning.

[illegible]

Total Mark

Please see over.....

10. Name **FIVE** half-hardy plants and state a distinct situation where **EACH** could be used effectively by completing the table below: **10**

Plant	Situation

Total Mark

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**The Royal Horticultural Society, Wisley, Woking, Surrey GU23 6QB
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R2111

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

Level 2

Tuesday 28 June 2011

Candidates Registered	735	Pass with Commendation	154 (26.50%)
Candidates Entered	581 (79%)	Pass	254 (43.72%)
Absent/Withdrawn/Deferred	154 (21%)	Fail	173 (29.78%)
Total Candidates Passed	408 (70.22%)		

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 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, and preferably 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.
10. Candidates should be aware of the reading list of suggested books for the RHS Level 2 Certificate in The Principles of Garden Planning, Establishment and Maintenance which is available from the Qualifications Section and can also be found on the RHS website together with past papers.

Examiners' Comments:

		Marks
1.	a) State ONE risk associated with EACH of the following hazards in a garden situation:	
	i) unsafe buildings;	1
	ii) ponds;	1
	iii) overhead or underground cables;	1
	iv) slopes and undulating ground.	1
	b) Describe THREE potential restrictions which may limit work on the site of a new garden.	6
	a) Most candidates correctly identified a risk associated with the hazards given. The best candidates qualified their answers and examples included:	
	i) Unsafe buildings where falling masonry could cause head injuries.	
	ii) Ponds where there is a risk of electrocution if electrical equipment e.g. hedge trimmers are being used nearby and fall in the water.	
	iii) Overhead and underground cables. Underground cables may be cut through with a spade causing electrocution when digging.	

iv) Slopes and undulating ground which may be slippery when accessed and cause falls.

- b) Those candidates who related the restrictions to the planning stage of the new garden gained full marks. Acceptable answers included descriptions of tree preservation issues, time and budget constraints and poor access to the site for machinery. Operational constraints e.g. bad weather were not acceptable.

2. a) *State what needs to be recorded in a site appraisal under **EACH** of the following headings:*

- | | | |
|------|------------|---|
| i) | soil type; | 2 |
| ii) | aspect; | 2 |
| iii) | exposure. | 2 |

b) *Describe how to collect information on:*

- | | | |
|-----|------------|---|
| i) | soil type; | 2 |
| ii) | exposure. | 2 |

a) Many candidates gained full marks by showing a good understanding of soil type, aspect and exposure. Examples given included:

- i) Soil type to include soil pH, structure, texture, soil profile and drainage.
- ii) Aspect to identify the direction each side of the house faces, location of fences and walls, and the potential of south facing slopes, shady/sunny areas are important.
- iii) Exposure which includes the effects of frost, cold and the prevailing wind.

It is important that candidates are clear with regard to the difference between soil texture and soil structure and how they are evaluated.

b) Candidates provided a range of descriptions on how to collect information; for example the use of a pH meter or testing kit, carrying out a texture test, digging a soil profile pit and looking at the soil profile for soil type. Collecting information on exposure included examining the extent of shelter, recording the direction of the prevailing wind, assessing plant growth and the topography of the site.

3. *Describe the relevance of garden planning principles to the production of a garden design that 'works'.*

10

Candidates were expected to describe five garden planning principles with appropriate examples to illustrate each principle for full marks. The best candidates provided good descriptions which included unity, by planning to use local stone to tie the garden in with the house or landscape. Rhythm, by repeating colour, shape or texture throughout a garden so that one looks at the whole picture and not just one area. Scale and proportion is important and could be illustrated by using a small tree for a small garden so that it does not dominate the area.

A number of candidates included the client brief and site appraisal as garden planning principles which is incorrect and could not be rewarded.

4. a) *State what is meant by the term 'formal' garden design.* 1
- b) *Name **THREE** hard landscaping elements characteristic of a formal garden.* 3
- c) *Describe how the use of **TWO** of the elements named in b), contributes to a cohesive formal garden design.* 6

- a) The majority of candidates were able to state that a formal garden design is one which is planned using symmetry and geometric shapes.
- b) The best candidates named a range of hard landscaping elements which included formal statuary, raked gravel paths and classical stone balustrades.
- c) For candidates to gain full marks it was important for them to not only describe how a garden can be made cohesive but to relate this to a formal garden. Candidates who understood this provided good answers e.g. the use of statues, especially those of a classical theme which contribute to the ambience of a formal garden as they provide a historical link with other elements such as *Taxus baccata* hedges (which provide a backdrop). Natural stone paving indicates age and gives the garden a natural feel. Other examples included raked gravel paths which can form the main central axis of a garden and lead the eye to focal points such as a central pond or fountain. The texture of the gravel surface associates well with other heritage elements e.g. clipped *Buxus sempervirens* and *Taxus baccata* hedges, parterres and fine turf.

Although many heritage gardens have formal gardens some candidates appear to believe that formal designs belong only to grand gardens or wealthy owners, which is incorrect.

5. a) *Describe **TWO** horizontal hard landscape features used in garden planning.* 4
- b) *Name **ONE** suitable material which could be used for **EACH** feature identified in a), and state its benefits and limitations.* 6

- a) A range of examples were described by candidates who provided horizontal hard landscape features and not vertical ones which were incorrect.

Good examples included decking which is used as an alternative to a paved area and is constructed using timber planks on a timber framework. It provides a place to view the garden at a commonly raised height in relation to other garden areas. It can also be used

as a seating area or a place to dine alfresco. Steps can be constructed to provide access for pedestrians between two garden levels. They can provide an attractive feature or focal point in the design if they are well proportioned and constructed from pleasing textures. Risers may be constructed from brick and treads from paving slabs.

- b) Candidates named suitable materials and the best answers included appropriate benefits and limitations. Examples included wood which has a softer texture than paving but can become slippery from the growth of algae. Concrete is another good example which is solid and supportive when used to support decking posts but has unsustainable issues with regard to the energy used to make the cement.

Aesthetic benefits, which are often a matter of opinion and do not demonstrate knowledge, were not awarded marks unless they were clarified.

6. a) Name **TWO** evergreen and **TWO** deciduous trees or large shrubs. 4

- b) Describe **ONE** evergreen and **ONE** deciduous tree/shrub named in a), under the following headings:

- i) decorative merits; 3
ii) height and spread. 3

- a) Most candidates showed a good knowledge of trees and shrubs and provided accurately named examples. Evergreens included *Acacia dealbata*, *Eucalyptus niphophila* and *Arbutus unedo* and deciduous species included *Betula pendula*, *Fagus sylvatica* and *Sorbus aucuparia*. Full botanical names were required for full marks.

- b) Those candidates who provided good descriptions of the trees/shrubs named in a) received full marks. These descriptions included details of the type of flower, flower colour and time of flowering, bark effects, autumn colour of foliage etc. and correct specific heights and spreads of the species named.

Statements including deciduous and evergreen as decorative merits and descriptions of plants not named in a) were not awarded marks.

7. a) List **FIVE** distinct garden situations where herbaceous perennials can be used effectively. 5

- b) For **EACH** of the situations named in a), identify **ONE** suitable **NAMED** herbaceous perennial. 5

- a) The majority of candidates were able to provide five distinct garden situations for the effective use of herbaceous perennials. Examples included; herbaceous border, mixed border, bog/marginal planting, woodland, prairie planting etc.

Candidates who cited situations, for example border in 'shade' or border in 'sun', were not awarded marks as they were not distinct from each other.

- b) A range of herbaceous perennials were identified by most candidates and included; *Rudbeckia fulgida* 'Goldsturm', *Sedum gypsicola* 'Herbstfreude', *Aster novi-belgii*, *Hosta* 'Thomas Hogg' and *Delphinium* 'Black Knight'. Full botanical names were required for full marks.

Marks were not awarded where candidates named woody plants instead of herbaceous perennials.

8. a) Name **FIVE** patio or basket plants suitable for a sunny situation. **5**

b) Give **ONE** decorative merit for **EACH** plant named in a). **5**

- a) Most candidates were able to name five patio or basket plants and examples included; *Fuchsia* 'Dollar Princess', *Bidens aurea*, *Lobelia* 'String of Pearls', *Impatiens* 'Accent Series' and *Pelargonium zonale*. Full botanical names were required for full marks.

- b) Those candidates who provided specific decorative merits were awarded full marks e.g. *Bidens aurea* has spreading stems of yellow daisy-like flowers on fine foliage and *Lobelia* 'String of Pearls' has spreading, usually blue flowers on wispy foliage.

Descriptions such as 'bright flowers' and 'flowers all summer' are too vague and were not awarded marks.

9. a) Name **TWO** distinct hazards associated with plants giving a **NAMED** plant example for **EACH** hazard. **4**

b) For **EACH** hazard named in a), state the associated risk and describe how these may be minimised in garden planning. **6**

- a) Most candidates were able to provide two hazards associated with plants and examples given included; dangerous hard thorns at the tips of the leaves of *Agave americana* and irritant sap if the stems and leaves of *Euphorbia wulfenii* are crushed.

Some candidates were confused between a hazard and a risk.

- b) Those candidates who stated the associated risk for each hazard which includes the potential harm that can be afforded by the hazardous plant example were awarded full marks. Examples included planting *Agave Americana* well away from the edge of borders to avoid injury to garden visitors and children and planning an information board to inform visitors in gardens open to the public of the danger of irritant sap from plants like *Euphorbia wulfenii*.

Candidates who provided maintenance solutions to the risks and not planning solutions could not be awarded marks.

10. Name **FIVE** half-hardy plants and state a distinct situation where **EACH** could be used effectively by completing the table below:

10

<i>Plant</i>	<i>Situation</i>

Candidates who were most successful provided the full botanical name for five distinct plants which were all examples of half-hardy plants. Examples given included; *Pelargonium zonale*, *Petunia grandiflora*, *Lobelia erinus*, *Tagetes patula*, *Impatiens walleriana* etc.

Candidates who gave only the genus could not be awarded any marks as many plants have both half-hardy and tender species in the genus.

The majority of candidates stated a suitable situation where each of the plants could be used and included hanging baskets, containers, mixed borders, as edging plants in a formal bedding scheme, etc.

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