Royal Horticultural Society

R2111

UNDERSTANDING GARDEN FEATURES, PLANT SELECTION AND PLANNING

Level 2

Tuesday 14 February 2012

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.

vii) Please note, sufficient lined space is provided. It is not necessary that all lined space is used when answering a question.

ANSWER ALL QUESTIONS

MARKS

Q1 a) Describe the following garden surveying techniques with the use of clearly labelled diagrams:

i) offsets; **4**

ii) triangulation. **4**

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b) State the importance of identifying the location of a **NAMED** underground service when carrying out a garden survey. **2**

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Total Mark

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MARKS

Q2 a) State how the use of **EACH** of the following contributes to good garden design:

i) asymmetry; **2**
ii) colour; **2**
iii) focal point. **2**

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b) Describe **TWO** characteristics of a knot garden. **4**

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Total Mark

MARKS

Q3 a) Name **TWO** distinct types of water feature suitable for a domestic garden. **2**

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b) State **TWO** manufactured and **TWO** natural materials which are used to construct water features. **4**

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c) Describe **TWO** distinct alpine **OR** rock garden plants. **4**

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Total Mark

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MARKS

Q4 Describe **ONE** different shrub for **EACH** of the following garden situations by completing the table below.

	Shady site	**Sunny site**	**Acid soil**	**Alkaline soil**	
Plant name					**4**
Decorative merit					**4**
Height and spread					**2**

Total Mark

Please turn over/.....

MARKS

Q5 a) Define the term 'biennial'. **1**

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b) Name **THREE** plants grown as biennials. **3**

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c) Describe **THREE** distinct garden situations where biennials could be used effectively. **6**

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MARKS

Q6 a) Define the term 'hardy annual'. **1**

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b) Name **THREE** distinct plants grown as hardy annuals for **EACH** of the following uses:

i) cut flowers;
ii) border display. **6**

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c) Describe the site requirements for **ONE** of the uses named in b). **3**

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MARKS

Q7 a) Name **FOUR** elements of hard landscaping. **4**

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b) Describe **THREE** ways in which hard landscaping elements can ensure cohesion in garden design. **6**

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MARKS

Q8 a) Distinguish between a hazard and a risk. **1**

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b) Complete the table below for **EACH** of the garden planning factors listed. **9**

Factors	ONE Hazard	ONE Risk	ONE method of risk reduction
Access			
Location of features			
Slope			

Total Mark

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MARKS

Q9 a) Describe **THREE** distinct landscaping materials chosen at the design stage for their environmental sustainability. **6**

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b) State **FOUR** sustainable garden maintenance practices that can be integrated during garden planning and design. **4**

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Total Mark

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MARKS

Q10 a) Name **TWO** appropriate grass species for **EACH** of the following types of lawn:

i) hard wearing utility; **2**
ii) high quality ornamental; **2**
iii) shade tolerant. **2**

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b) State **FOUR** observations relating to drainage which may be recorded when carrying out a site appraisal. **4**

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Total Mark

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R2111

UNDERSTANDING GARDEN FEATURES, PLANT SELECTION AND PLANNING

Level 2

Tuesday 14 February 2012

Candidates Registered	538	**Pass with Commendation**	95 (22.20%)
Candidates Entered	428	**Pass**	218 (50.93%)
Absent/Withdrawn/Deferred	110	**Fail**	115 (26.87)
Total Candidates Passed	313 (73.13%)		

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

Q1 *a) Describe the following garden surveying techniques with the use of clearly labelled diagrams:*

i) offsets; ***4***
ii) triangulation. ***4***

*b) State the importance of identifying the location of a **NAMED** underground service when carrying out a garden survey.* ***2***

a)i) The best candidates provided good, well drawn and properly labelled diagrams to illustrate their answers. Candidates who described an offset as a method used to determine the position of an object e.g. a tree on an irregular line e.g. a boundary by measuring the distance to the object at right angles to the baseline and how the angle would be checked were awarded maximum marks.

a)ii) Most candidates described triangulation as a method for surveying a site while a few described it as a method to determine the position of an object e.g. a tree by measuring the distance to the object from two points on the baseline.

b) The majority of candidates were familiar with the hazards of underground services and those who gave details of the potential cost of repair or delays associated with repair gained maximum marks.

Q2 *a) State how the use of **EACH** of the following contributes to good garden design:*

i) asymmetry; ***2***
ii) colour; ***2***
iii) focal point. ***2***

*b) Describe **TWO** characteristics of a knot garden.* ***4***

a)i) Candidates who stated that asymmetry is the balancing of visual mass and weight on either side of an axis giving a suitable example were awarded full marks.

a)ii) Most candidates were able to relate colour to the colour wheel giving examples of contrasting and complimentary colours, creating unity through the use of repeating colours and the use of hot and cold colours.

a)iii) Suitable answers of the use of focal points to draw the eye, to lead a visitor through a garden or the use of features outside of the garden were all awarded marks.

b) The best candidates described a knot garden as one with interlocking or intertwining patterns using clipped *Buxus sempervirens* which is designed to be viewed from above.

Q3 *a) Name **TWO** distinct types of water feature suitable for a domestic garden.* ***2***

*b) State **TWO** manufactured and **TWO** natural materials which are used to construct water features.* ***4***

*c) Describe **TWO** distinct alpine **OR** rock garden plants.* ***4***

a) The majority of candidates were able to name distinct types of water features e.g. a pebble fountain and a pond and gained full marks.

b) Candidates included butyl rubber liners, concrete blocks, bricks and black plastic as manufactured materials and clay for puddling, natural stone and boulders and pebbles as natural materials for constructing water features and were awarded full marks.

It is important that candidates do not include partly manufactured materials as natural ones e.g. concrete.

c) The best candidates provided detailed descriptions of alpine or rock garden plants. Details included; habit of growth, colour of flowers, when and for how long, height and spread etc. and were awarded full marks.

Q4 *Describe **ONE** different shrub for **EACH** of the following garden situations by completing the table below.*

	Shady site	***Sunny site***	***Acid soil***	***Alkaline soil***
Plant name				
Decorative merit				
Height and spread				

Those candidates who provided accurate descriptions of the decorative merits and height and spread of fully named shrubs gained maximum marks.

Marks could not be awarded when trees or herbaceous perennials were named.

Q5 *a) Define the term 'biennial'.* ***1***

*b) Name **THREE** plants grown as biennials.* ***3***

*c) Describe **THREE** distinct garden situations where biennials could be used effectively.* ***6***

a) The majority of candidates correctly defined a biennial as being a plant that has a two year life cycle germinating and growing in the first year and flowering, setting seed and dying in the second year.

b) Candidates named a range of biennial plants including; *Cheiranthus cheiri, Myosotis alpestris* and *Dianthus barbatus.*

Examples of vegetables could not be awarded any marks as these are generally not grown as biennials unless they are for seed production.

c) The best answers were from candidates who fully described garden situations for biennials e.g. *Digitalis purpurea* growing in a woodland setting where they can naturally self-seed and were awarded full marks.

Q6 *a) Define the term 'hardy annual'.* ***1***

*b) Name **THREE** distinct plants grown as hardy annuals for **EACH** of the following uses:*

i) cut flowers;
ii) border display. ***6***

*c) Describe the site requirements for **ONE** of the uses named in b).* ***3***

a) To gain full marks it was important for candidates to define a hardy annual as a plant which completes its life cycle in one year and will not be killed by frost.

b)i) Suitable examples included; *Lathyrus odoratus, Centaurea cyanus* and *Helianthus annuus.*

b)ii) Suitable answers included; *Calendula officinalis, Nigella damascena* and *Eschscholzia californica.*

c) Candidates who provided the best answers gave a description of the site requirements e.g. for border display, plants require low fertility to encourage flowering, an open sunny situation, an area free from competition from large weed species and areas of the border free from bark mulch to enable natural seeding to take place gained full marks.

Some candidates did not link the site requirements to section b) of the question.

Q7 *a) Name **FOUR** elements of hard landscaping.* ***4***

*b) Describe **THREE** ways in which hard landscaping elements can ensure cohesion in garden design.* ***6***

a) The majority of candidates named four hard landscape elements e.g. timber decking, stone steps, gravel paths, patios, statues, arches etc. and gained full marks.

b) Candidates who linked their answers to cohesion in a garden were awarded full marks. Examples of links included using similar materials to those used in the construction of the house throughout the garden, using a limited number of hard landscape materials, considering the scale and proportion of features and colours and styles appropriate to the site.

Q8 *a) Distinguish between a hazard and a risk.* ***1***

*b) Complete the table below for **EACH** of the garden planning factors listed.* ***9***

Factors	***ONE Hazard***	***ONE Risk***	***ONE method of risk reduction***
Access			
Location of features			
Slope			

a) Most candidates were able to distinguish between a hazard which is something which is identified as being potentially dangerous or which can cause harm to humans and a risk which is an identified specific danger which could arise from a hazard. The best answers were from students who gave named examples of each.

b) Candidates who linked their answers to garden planning features gained full marks for this section of the question. Examples included access where a pathway under trees which is dark is a potential hazard and trips, slips and falls are risks. Designing a new route for the path away from trees would be a suitable method of risk reduction.

Q9 *a) Describe **THREE** distinct landscaping materials chosen at the design stage for their environmental sustainability.* ***6***

*b) State **FOUR** sustainable garden maintenance practices that can be integrated during garden planning and design.* ***4***

a) The majority of candidates were able to name a range of materials e.g. stone and timber but only the best candidates described them fully. Candidates need to be aware that although materials may be locally sourced it does not necessarily mean that they are sustainable e.g. local stone.

b) Most candidates provided a range of acceptable answers including; planning a composting area for green waste, specifying mulching of planted areas instead of using herbicides and planning the installation of water butts

Q10 *a) Name **TWO** appropriate grass species for **EACH** of the following types of lawn:*

i)	*hard wearing utility;*	***2***
ii)	*high quality ornamental;*	***2***
iii)	*shade tolerant.*	***2***

*b) State **FOUR** observations relating to drainage which may be recorded when carrying out a site appraisal.* ***4***

a) Full botanical names were required for maximum marks e.g. *Lolium perenne* and *Poa pratensis* for hard wearing utility, *Agrostis capillaris* and *Festuca rubra commutata* for high quality ornamental and *Festuca rubra rubra* and *Poa nemoralis* for shade tolerant lawns.

b) The best candidates clearly stated a range of observations relating to drainage which may be recorded when carrying out a site appraisal and gained full marks. These included; recording the presence of ditches and land drains, the topography of the garden and low lying areas which may act as a sink and recording areas of wet, boggy, muddy soil.

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