R3114

UNDERSTANDING A RANGE OF SPECIALIST ELEMENTS IN THE
ESTABLISHMENT OF GARDEN AND URBAN PLANTING

Level 3

Thursday 13 February 2020

15:35 – 16:40

Written Examination

Candidate Number: ........................................................................................................

Candidate Name: ........................................................................................................

Centre Name: ............................................................................................................

IMPORTANT – Please read carefully before commencing:

i) The duration of this paper is 65 minutes;

ii) ALL questions should be attempted;

iii) EACH question carries 10 marks;

iv) Write your answers legibly in the spaces 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 may be used for drawing purposes only. Ensure that all diagrams are labelled accurately with the line touching the named object;

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) State **FOUR** characteristics of plants suitable for a sensory garden.

b) Describe **THREE NAMED** plants **EACH** providing a different stimulus for use in a sensory garden.
Q2  a) State **FOUR** factors that need to be considered when selecting a site for a wildflower meadow.

Please see over/.....
b) Describe the operations involved in preparing a site for sowing a wildflower meadow.
Q3  a) Describe what is meant by a rain garden.

b) State **FOUR** benefits of a rain garden for a community garden.
c) Explain **TWO** considerations when siting a rain garden in a community garden.
Q4 a) Describe **THREE** characteristics of plants suitable for a sub-tropical bedding scheme, giving an appropriate plant example for **EACH** by completing the table below.

<table>
<thead>
<tr>
<th>Named plant example</th>
<th>Characteristic</th>
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<tbody>
<tr>
<td>1.</td>
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<td>3.</td>
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Please see over/.....
b) Identify **FOUR** management issues associated with a sub-tropical bedding scheme.

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Please turn over/.....
Q5  a) State SIX reasons for formative pruning in establishing a trained fruit tree.

Please see over/.....
b) State **FOUR** reasons for providing a framework for establishing trained fruit trees.

Please turn over/...
Q6  a) Identify **FOUR** key elements of a potager.

b) Describe **THREE** essential maintenance tasks specific to a potager.
DO NOT USE THIS PAGE
General Comments

The majority of candidates attempted and completed all the questions.

Where named plant examples are asked for, **full botanical names were required** to achieve full marks: genus, species and where appropriate variety, cultivar etc. needed to be written and spelt correctly. Where genus alone was given, all species in that genus need to show the characteristic asked for to gain any credit. **Common names were NOT accepted** and misspellings were penalised. Candidates needed to use unambiguous plant examples from sources such as the RHS Plant Finder and/or the RHS A-Z Encyclopaedia of Plants together with examples given in the syllabus and avoid obscure or difficult to verify plant examples which risked being not credited.

**Labels on diagrams needed to be carefully and correctly positioned** to avoid ambiguity, not left hanging in mid-air. They needed to actually touch the appropriate part of the diagram. Annotations on diagrams were accepted as an alternative to description in the text as long as these were clear and answered the question. No marks were awarded for artistic merit or for unlabelled diagrams.

Where a number of answers were specified in the question, e.g. ‘List TWO plant names’ or ‘Describe TWO functions’ **only the FIRST TWO answers** in a list were marked.

Candidates should take account of the command statements in the question e.g. ‘list’, ‘describe’, ‘explain’, together with the mark allocation, to judge the depth of the answer required. Extra information, even if it is accurate, does not gain extra marks.
Q1  

a) **State FOUR characteristics of plants suitable for a sensory garden.**  

b) **Describe THREE NAMED plants EACH providing a different stimulus for use in a sensory garden.**

Most candidates were able to state four good clear characteristics of plants suitable for a sensory garden, and wrote about brightly coloured flowers or leaves, textural qualities of the leaves, scent, taste, movement and sound.

Some candidates gave more points than asked for therefore only the number asked for were marked and the rest discounted.

A few candidates lost marks by not providing answers in the context of the question or gave generic points such as hardiness, robustness.

Generally good marks were gained by candidates. Good answers included full botanical names and descriptions relating to sensory qualities such as *Helianthus annuus* with large yellow/orange flower heads stimulating the sense of sight, *Briza maxima*, with seed heads that rustle in wind stimulating the sense of hearing and *Daphne odora*, which has heavily scented flowers in early spring giving a strong fragrance which stimulates the sense of smell.

A few candidates lost marks mainly due to incomplete botanical names.
Q2  a) State **FOUR** factors that need to be considered when selecting a site for a wildflower meadow.

b) Describe the operations involved in preparing a site for sowing a wildflower meadow.

The majority of candidates gave good answers to this part of the question relating to selection of a site for a wildflower meadow with factors identified such as soil type, soil fertility, pH, drainage, dominant weeds and grasses, presence of large trees, aspect, and other valid points with appropriate qualification or reason.

Several candidates misread the question and wrote about maintenance practices for a wildflower meadow rather than preparing the site for sowing. They also wrote about the sowing of the seed mix which was not awarded any marks. However, most candidates gained good marks describing operations including either stripping or clearing vegetation by various means; stripping top soil if fertile, various ground cultivation techniques either appropriate for larger sites such as ploughing or disc harrowing or techniques for smaller back garden meadows such as rotovating, forking and raking and other valid points all of which required a full description for maximum marks.
Q3  

a) Describe what is meant by a rain garden.  

b) State FOUR benefits of a rain garden for a community garden.  

c) Explain TWO considerations when siting a rain garden in a community garden.

A variable range of marks were gained by candidates. Good answers included a clear definition and an example. A rain garden is a shallow area of ground or dip which receives run off water from roofs or hard surfaces, stores it temporarily and allows slower infiltration into surrounding soil. It could be a shallow depression planted up with plants tolerant of waterlogging for at least 48 hours.

A few candidates were unclear as to the meaning of a rain garden and confused this with various drainage and irrigation systems.

Some candidates were able to state four benefits of a rain garden for a community garden but the rest failed to relate their answers to the community garden aspect of the question. Popular answers included increasing the range of plants grown, avoiding the need for expensive soakaway installation, increase in wildlife diversity and the educational benefits of some of the above points.

Marks were lost for giving generic answers stating benefits related to drainage/irrigation and for not relating the benefit to community gardens.

The majority of candidates gave some good answers and gained marks by writing about the siting of the rain garden utilising existing buildings with gutters and downpipes to channel the rainwater; and the requirement of a gentle incline. Other valid explanations were also accepted such as it would be placed away from building foundations so that it didn’t cause damage or cost to a community.
Q4 a) Describe THREE characteristics of plants suitable for a sub-tropical bedding scheme, giving an appropriate plant example for EACH by completing the table below.

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b) Identify FOUR management issues associated with a sub-tropical bedding scheme.

This was generally well answered by the majority of candidates who were able to accurately state three associated characteristics of plants associated with a sub-tropical bedding scheme and correctly named a plant for each characteristic.

Examples given included:

- hot/warm flower colour, for example *Tithonia rotundifolia* with vivid orange flowers;
- large leaf size/shape, for example *Canna indica* 'Purpurea', *Tetrapanax papyrifer*, or *Musa basjoo*;
- large exotic flowers or inflorescence, for example *Celosia argentea* var. *cristata*.

Marks were lost for not giving full botanical names including species or stating unsuitable plants/colouration or naming general bedding plants.

b) The question asked for management issues associated with a sub-tropical bedding scheme. Candidates who wrote about managing the timing of planting in relation to frost/low temperatures and the tender nature of the plants or the management of over-wintering the plants many of which are tender perennials were all awarded marks. Maintenance issues specific to sub-tropical bedding were also credited including staking/support for taller plants (against wind damage), renewing plunged plants for continued interest, and maintaining irrigation, especially to plunged plants.
Q5  a)  State **SIX** reasons for formative pruning in establishing a trained fruit tree.  

b)  State **FOUR** reasons for providing a framework for establishing trained fruit trees.

Those candidates who read the question were able to write well-constructed and informed answers on the formative pruning of establishing a trained fruit tree, which in most cases was either an espalier or cordon. Unfortunately, quite a few candidates wrote about maintenance pruning, which could not be awarded any marks or did not relate their answers to fruit trees.

Correct answers could have included: to create a balanced size and shape for the future development of productive growth and buds, to begin training a plant into desired format/regime e.g. espalier, to encourage suitable well-spaced/positioned canopy/network of branches/shoots, to restrict growth within desired parameters, to encourage directional growth as required, to create a leader(s) centrally or in other positions.

b)  This part of the question was answered well with most candidates writing about the framework as a guide, using it to tie in lateral growth, allowing good air-circulation between the wall and the frame, to provide anchorage and also access for maintenance and harvesting.
Q6  a) Identify **FOUR** key elements of a potager.

b) Describe **THREE** essential maintenance tasks specific to a potager.

Most candidates identified a good range of key elements of a potager as a formal ornamental garden with beds enclosed with a low edging and decorative pathways, the beds containing a mix of colourful and ornamental vegetable crops with some fruit and purely ornamental plants. However, a few candidates were not familiar with the term 'potager'.

Marks were not gained for cropping/productive systems rather than ornamental value of vegetables, or raised beds if not contextualised.

This was also well answered with candidates building on the answers in part a) for example: clipping hedges to maintain form, light and access to plants, repeat sowing or planting of crops to leave little or no bare earth, cropping and immediate re-planting, weed control and removal of blemished or damaged plants to maintain aesthetics and maintenance of vertical structures.

Marks were not awarded for generic points not related to potagers, or for preparation techniques or planning.