



**R2112**

**UNDERSTANDING THE CHOICE, ESTABLISHMENT &  
MAINTENANCE OF GARDEN PLANTS & LAWNS**

**Level 2**

**Tuesday 20 June 2017**

**11:20 – 12:10**

**Written Examination**

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

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

**Centre Number/Name:** .....

**IMPORTANT – Please read carefully before commencing:**

- i) The duration of this paper is **50** 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 **TWO** benefits of using F<sub>1</sub> hybrid plants in a summer bedding scheme.

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b) State the term usually applied to plants used in summer bedding schemes.

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c) List in chronological order the tasks that are carried out in bed preparation and planting of summer bedding.

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**MARKS**

**Q2 a)** Describe a suitable method to lift and divide an herbaceous perennial, in an herbaceous border.

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b) Name **TWO** distinct herbaceous perennial plants which can be divided by the method described in a).

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**MARKS**

**Q3 a)** State the meaning of the terms:

- i) climber;
- ii) wall shrub.

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i).....

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ii).....

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b) Name **EIGHT** distinct plants, **FOUR** climbers **AND FOUR** wall shrubs, by completing the table below.

	<b>Climbers</b>		<b>Wall shrubs</b>
<b>1.</b>		<b>1.</b>	
<b>2.</b>		<b>2.</b>	
<b>3.</b>		<b>3.</b>	
<b>4.</b>		<b>4.</b>	

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**MARKS**

**Q4 a)** Describe **TWO** distinct methods that can be used to provide winter protection for alpine plants.

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**b)** Name **ONE** pest of alpine plants, giving **ONE** suitable method of control.

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**c)** Name **FOUR** distinct alpine **OR** rock garden plants.

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**MARKS**

**Q6** Describe the establishment of a high quality ornamental lawn from seed under **EACH** of the following headings:

- i) **TWO** distinct methods of weed removal;
- ii) application of base dressing;
- iii) selection and sowing of grass species.

**4**  
**3**  
**3**

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Total Mark

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**Level 2**

**Tuesday 20 June 2017**

<b>Candidates Registered</b>	<b>701</b>		<b>Total Candidates Passed</b>	<b>492</b>	<b>82.27%</b>
Candidates Entered	598	85.31%	Passed with Commendation	231	38.63%
Candidates Absent/Withdrawn	91	12.98%	Passed	261	43.64%
Candidates Deferred	12	1.71%	Failed	106	17.73%

**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.

	<b>MARKS</b>
<b>Q1 a)</b> State <b>TWO</b> benefits of using $F_1$ hybrid plants in a summer bedding scheme.	<b>2</b>
b) State the term usually applied to plants used in summer bedding schemes.	<b>1</b>
c) List in chronological order the tasks that are carried out in bed preparation and planting of summer bedding.	<b>7</b>

**Q1a)** Candidates who confined their answer to making specific reference to the benefits relating to decorative plants gained maximum marks. Suitable answers included: uniform size, uniform colour, larger flowers, and longer flowering period.

**Q1b)** The best candidates stated that the term applied to plants used in summer bedding schemes is half hardy annual or plants grown as half hardy annuals and were awarded full marks.

Candidates who referred to the tender nature of plants used in summer bedding schemes were also awarded marks.

**Q1c)** Many candidates correctly listed the tasks carried out in bed preparation and planting of summer bedding and achieved maximum marks. Acceptable answers included:

- Removal of spring bedding and weeds
- Soil cultivation i.e. single or double digging
- Incorporation of organic matter
- Raking/levelling/shaping of bed
- Consolidation, and final raking to include application of base dressing
- Positioning of plants, spacing
- Planting plants e.g. removal of pot, teasing out roots etc.
- Order of planting i.e. dot plants, edging, groundwork/infill
- Watering in

	<b>MARKS</b>
<b>Q2 a)</b> Describe a suitable method to lift and divide an herbaceous perennial, in an herbaceous border.	<b>8</b>
b) Name <b>TWO</b> distinct herbaceous perennial plants which can be divided by the method described in a).	<b>2</b>

**Q2a)** Candidates who had clearly carried out the task of lifting and dividing herbaceous perennials were able to describe a suitable method and gained full marks. The best answers included the following details:

- Cut back the selected plant and remove any dead foliage
- Fork around the rootball and loosen it
- Lift the plant carefully and place it onto a tarpaulin or work bench
- Use two forks back-to-back to prise the plant apart or split it using a sharp knife or use a spade for woody, dense plants or tease the plant apart by hand
- Discard the old woody centre
- Divide the plant into sections of a suitable size each containing buds/shoots and roots
- Remove any weeds or diseased material
- Trim back the roots
- Prepare the new planting area
- Replant the divisions

**Q2b)** A range of suitable plants were named by many candidates who were awarded full marks. These included: *Acanthus spinosus*, *Achillea millefolium*, *Anemone x hybrida*, *Echinacea purpurea*.

**Q3 a)** State the meaning of the terms:

- i) climber;
- ii) wall shrub.

**1**  
**1**

b) Name **EIGHT** distinct plants, **FOUR** climbers **AND FOUR** wall shrubs, by completing the table below.

	<b>Climbers</b>		<b>Wall shrubs</b>	
<b>1.</b>		<b>1.</b>		<b>2</b>
<b>2.</b>		<b>2.</b>		<b>2</b>
<b>3.</b>		<b>3.</b>		<b>2</b>
<b>4.</b>		<b>4.</b>		<b>2</b>

**Q3a)** Candidates who were able to state the meaning of the specific terms gained maximum marks. Acceptable answers included:

- i) **Climber** is a plant that has adaptations or modifications to enable it to climb e.g. twining stems, tendrils or adventitious roots.
- ii) **Wall shrub** is a woody shrub which is planted next to a wall for decorative reasons or to benefit from the microclimate provided by the wall.

**Q3b)** Most candidates were able to name a range of climbers and wall shrubs and were awarded full marks. Suitable answers included:

**Climbers**

*Wisteria sinensis, Parthenocissus tricuspidata, Clematis montana, Hedera helix, Hydrangea anomala* subsp. *petiolaris*

**Wall Shrub**

*Garrya elliptica, Jasminum nudiflorum, Fremontodendron californicum, Pyracantha 'Orange Charmer', Solanum crispum.*

	<b>MARKS</b>
<b>Q4 a)</b> Describe <b>TWO</b> distinct methods that can be used to provide winter protection for alpine plants.	<b>4</b>
b) Name <b>ONE</b> pest of alpine plants, giving <b>ONE</b> suitable method of control.	<b>2</b>
c) Name <b>FOUR</b> distinct alpine <b>OR</b> rock garden plants.	<b>4</b>

**Q4a)** Marks were gained by candidates who described appropriate methods to provide winter protection for alpine plants. These included covering the plants with a cloche or pane of glass/Perspex suspended over the plants on wires, lifting and containerising the plants and placing them in a cold frame overwinter or plants that have been plunged in the rock garden can be lifted and placed in an alpine glasshouse or cold frame during the winter. Alternatively alpine plants can be grown in an alpine glasshouse which is well ventilated and unheated.

**Q4b)** The majority of candidates named slugs as a specific pest of alpine plants which can be controlled by hand picking or the use of Ferric phosphate pellets. Other pests include aphids which can be controlled by encouraging beneficial insects e.g. ladybirds and lacewings or the use of the insecticide Thiachlopid.

**Q4c)** Candidates were able to name a range of alpine or rock garden plants and gained full marks. Suitable answers included: *Gentiana verna*, *Pulsatilla vulgaris*, *Saxifraga x urbium*, *Armeria juniperifolia*, *Dryas octopetala*.

**Q5** Describe the planting of a **NAMED** deep water aquatic plant suitable for a garden pool.

**10**

**Q5)** Many candidates described the planting of *Nymphaea* 'Marliacea Chromatella' and were awarded full marks. The best answers included the following in their answers:

- Selection of a mesh container/basket
- Line the container with hessian to prevent loss of compost
- Trim roots and larger foliage before planting
- Place a heavy loam compost in the base of the container
- Position the plant in the centre of the container
- Fill the container with compost and firm well
- Water the container
- Fold in the hessian at the top of the basket and trim off excess
- Place gravel on the top of the container to prevent loss of the compost
- Attach strings to the side of the container to assist lowering it into the pond
- Slowly lower the container into the water and place on a platform of bricks or a shelf within the pond

**Q6** Describe the establishment of a high quality ornamental lawn from seed under **EACH** of the following headings:

- |   |          |
|---|----------|
| i) <b>TWO</b> distinct methods of weed removal; | <b>4</b> |
| ii) application of base dressing;               | <b>3</b> |
| iii) selection and sowing of grass species.     | <b>3</b> |

**Q6)** Candidates who related their answers solely to the establishment of a high quality lawn from seed achieved maximum marks. Suitable answers included:

- i) Weeds can be removed by hand i.e. digging, forking, hoeing or by the use of a translocated herbicide e.g. glyphosate for perennial weeds 6-8 weeks prior to final cultivations or by the use of a stale seedbed.
- ii) A compound fertiliser e.g. Growmore can be applied broadcast or by machine at a rate of 35-75g/m<sup>2</sup> by dividing the fertiliser in half and then applying it in two directions before raking it in.
- iii) *Agrostis capillaris* or *Agrostis tenuis* and *Festuca rubra* subsp. *commutata* can be sown at a rate of 35g/m<sup>2</sup> by dividing the seed in half and then sowing it in two directions before lightly raking it in.

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