



Excluding examiner comments

## RHS Level 3 Certificate in Plant Growth, Garden Planning and Applied Propagation

### UNIT 1

9 February 2024

09:30 - 11:30

Candidate Name: .....

Candidate Number: .....

Centre Name: .....

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### Instructions

This paper contains three sections which may be answered in any order. Candidates should answer:

- **Section A** – all questions (20 marks)
- **Section B** – all questions (50 marks)
- **Section C** – only **TWO** from **FOUR** questions (30 marks).

Place a cross (X) in the box identifying the two Section C questions you have answered.

C 1	C 2	C 3	C 4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### Please note:

- i) The duration of this paper is **120** minutes.
- ii) Write all answers legibly in the spaces provided and use black or blue ink only.
- iii) Use **METRIC** measurements only.
- iv) Where plant names are required, they should include genus, species and where appropriate, cultivar.
- v) Where a question requires a specific number of answers, only the first answers given will be marked regardless of the number of answers offered.

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**RHS Level 3 Certificate in UNIT 1**

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

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

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

**SECTION A**  
**RESPONSE GRID**

**Instructions**

Place a cross (X) in the box you believe is the correct answer. If you make a mistake, score through the box and place a cross in the correct box as follows:

1     

A
X

B

C
X

D

Question	Answer			
	A	B		
1	<input type="checkbox"/>	<input type="checkbox"/>		
	A	B	C	D
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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# Section A

**Answer all questions in this section.**  
**This section is worth 20 marks and each question is worth 1 mark.**

## Question 1

A gardener continually makes comments while at work that implies that a workmate's gender prevents them from carrying out tasks properly.

When challenged they later smile and claim that no offence is intended.

Is this harassment?

- a) Yes, it is.
- b) No, it is not.

## Question 2

Garden styles have developed throughout history.

Select the list with the correct chronological order of garden styles.

a	Renaissance Tudor Victorian Arts and Crafts	b	Tudor Renaissance Victorian Arts and Crafts
c	Renaissance English Landscape Arts and Crafts Victorian	d	Renaissance Victorian English Landscape Arts and Crafts

please turn over.....

## Question 3

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Which of the following is an example of a digital tool/app used to manage plant records?

- a) Persephone
- b) Aphrodite
- c) Dionysus
- d) Artemis.

#### Question 4

Which of the following is **NOT** a component of an annual propagation plan?

- a) Capacity
- b) Rooting times
- c) Losses
- d) Germination times.

#### Question 5

The leaf shown in the image below can be best described as:



- a) Ovate
- b) Orbicular
- c) Deltate
- d) Lanceolate.

please see over.....

Candidate name

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### Question 6

Heritage brings many benefits to society.

The Office of National Statistics published a report in 2020 which reported that the percentage of people in England visiting a heritage site in the previous 12 months was:

- a) 33% of the population
- b) 53% of the population
- c) 73% of the population
- d) 93% of the population.

### Question 7

What is the key advantage of the type of propagation shown in the image below?



- a) The plants produced are F<sub>1</sub> hybrids
- b) The plants produced are true to type
- c) The plants produced are free of virus
- d) The plants produced are more vigorous.

Please turn over.....

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### Question 8

Wild collected plants offer which of the following advantages?

- a) Genetic diversity
- b) Known provenance
- c) Conservation of species
- d) All of the above.

### Question 9

Which of the following criteria should be included in maintenance schedules for garden areas?

a	Cultivation requirement Snow removal Mowing regimes Pruning regimes	b	Sourcing plant material Mowing regimes Biosecurity policy Timing of operations
c	Cultivation requirement Mowing regimes Pruning regimes Biosecurity policy	d	Pruning regimes Sourcing plant material Biosecurity policy Timing of operations

### Question 10

Which of the following factors inform the development of propagation protocols?

- a) Temperature range and plant provenance
- b) Nutritional guidelines and maintenance of structures
- c) Integrated Pest Management strategies and materials ordering
- d) Size of module and growing media specification.

please see over.....

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### Question 11

What system of production has been used in the cultivation of this tree?



- a) Bare root
- b) Containerised
- c) Rootball
- d) Undercut.

### Question 12

This question relates to sustainability.

What advantage does the system of production for the tree shown below offer?



- a) Reduced emissions during transportation
- b) Reduced use of fertiliser during production
- c) Reduced use of plastics in production
- d) Reduced weight during transportation.

please turn over.....

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### Question 13

*“These gardens contain swathes of long-flowering perennials and grasses, planted in naturalistic shapes and lines. There is an abundance of colour and variety of form with an appreciation for plants long past their flowering “best”.*

In which period did this style of gardening become popular?

- a) 14<sup>th</sup> Century
- b) 16<sup>th</sup> Century
- c) 19<sup>th</sup> Century
- d) 21<sup>st</sup> Century.

### Question 14

Which of the following is a characteristic of a Tudor garden?

- a) The housing of new plant collections in crystal palaces
- b) Trees arranged in ornamental orchards, with knot gardens
- c) Informality in the layout of naturalistic plantings and rock gardens
- d) The use of a ha-ha to provide uninterrupted landscape views.

### Question 15

*“The specification of recommended procedure, quality of output, terminology, and other details, in a particular field.”*

What is this definition describing?

- a) A Legal Instruction
- b) A British Standard
- c) A Nursery Specification
- d) A Procurement Policy.

### Question 16

Which of these statements is **NOT** a purpose of interpretation?

- a) To enhance the visitor experience
- b) To meet the needs of every audience
- c) To help people learn about heritage
- d) To inform visitors about regulations.

please see over.....

### Question 17

The image below shows the tip of a leaf.

The botanical description of the leaf tip is:



- a) attenuate
- b) obtuse
- c) retuse
- d) truncate.

### Question 18

Which of these options most accurately defines the cultural ecosystem services offered by plants?

a	Cultural Human benefit Climate mitigation Biomass production	b	Spiritual Cultural Human benefit Biomass production
c	Spiritual Recreational Cultural Human benefit	d	Cultural Human benefit Biomass production Air quality

please turn over.....

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**Question 19**

How is an aspirated screen used in plant propagation?

- a) To sieve out large particles in growing media
- b) To provide shade for newly propagated plants
- c) To monitor temperature and relative humidity
- d) To filter water for use in a mist or fogging unit.

**Question 20**

Why do plant propagators use gibberellin soaks?

- a) To sterilise propagation tools and equipment
- b) To break seed dormancy in certain plant species
- c) As a growth regulator to prevent etiolation
- d) As a fungicide to prevent Botrytis in young cuttings.

**End of section A.**

**Please continue to Section B.**

## Section B

Answer all questions in this section.  
This section is worth 50 marks.

### Question 1 (4 marks)

You are responsible for the pruning of a hedge using step ladders.

- a) What is the name of the piece of legislation that covers working with step ladders?

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- b) What are the **THREE** questions that the Health and Safety Executive recommend a supervisor should ask to ensure safety when working above ground level.

3

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Total Mark

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Question 2 (8 marks)

MARKS

Plants are used for a range of purposes within gardens. Describe the characteristics of **NAMED** plant species to suit the purposes shown in the table below:

Purpose	Named plant example	Characteristics that make this plant suitable for the stated purpose
Climate resilience	1.	1.
	2.	2.
Focal point	1.	1.
	2.	2.

2

2

2

2

Total Mark

Candidate name

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**Question 3 (5 marks)**

**MARKS**

A local planning authority has designated an area as requiring management and protection for special architectural and historic interest.

**1**

a) What is the correct term for this designation?

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b) In addition to your answer to a), list **FOUR** sources of information that could be used to inform a basic evaluation of heritage for a garden.

**4**

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Total Mark
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**MARKS**

**Question 4** (7 marks)

This question relates to the three pillars of sustainability and the way in which public gardens can make a positive contribution to sustainability.

Complete the table below:

Pillar of Sustainability	Action a garden can take to make a positive contribution to sustainability
Social	1.
	2.
	1. Reducing fossil fuel use through reducing the frequency of mowing.
	2.
	1.
	2.

2

2

3

Total Mark

Candidate name

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**Question 5 (9 marks)**

**MARKS**

a) What is meant by the term scarification?

**2**

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b) Name **ONE** plant species that requires scarification to overcome seed dormancy.

**1**

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c) Describe the specific method of scarification that would be required to overcome the dormancy mechanism in the plant species named in b).

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Total Mark

**Question 5 contd.**

d) What hazards associated with this method of scarification should be included in a risk assessment?

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e) What actions should be included in the risk assessment to reduce the likelihood of accidents while carrying out scarification of seed?

**2**

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Total Mark

**Question 6 (5 marks)****MARKS**

This question relates to the use of Best Practice in the management of plant collections.

- a) Give **ONE** example of how plant information sources can be used to inform Best Practice in the management of plant collections.

**1**

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- b) With reference to the example stated in a), name one academic source of information.

**1**

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- c) Name one experience-based source of information.

**1**

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- d) How could information from these sources be used in the development of best practice?

**2**

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Total Mark

Candidate name

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**Question 7 (7 marks)****MARKS**

This question relates to the design principles that are used when creating garden areas.

Complete the table below:

Design principle	Definition of design principle	Example of how this principle can be applied in a garden setting	
Harmony	Harmony helps differing elements in a landscape design look unified.		1
Balance			2
Rhythm			2
Unity			2
			Total Mark

Candidate name

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**Question 8 (5 marks)**

**MARKS**

This question relates to the management of a National Plant Collection®.

- a) All National Plant Collections® need to provide an accessioned plant list.

Name **TWO** details that should be recorded in an accessioned plant list.

**2**

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- b) How does having an accession policy help the collection holder?

**2**

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- c) What action should the holder of a National Plant Collection® take to mitigate the risk of label loss?

**1**

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**End of section B.**

**Please continue to Section C.**

Total Mark

Candidate name

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## Section C

There are FOUR questions in this Section. You must only answer TWO questions.

Please write your answers on the following pages.

Each question is worth 15 marks. This section is worth 30 marks.

**NOTE:**

You **MUST** indicate which question you are answering by placing a cross in the appropriate box on the FRONT of this exam paper.

please turn over.....

Candidate name

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**Question C1**

Discuss the impact of plant species requirements on the development of a propagation facility within a public garden.

**15 marks**

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**15 marks**

Total Mark

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**15 marks**

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Discuss the impact of plant species requirements on the development of a propagation facility within a public garden.

**15 marks**









**Question C2**

Evaluate the importance and use of reliable named information sources in the management of plant collections in heritage gardens.

**15 marks**

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Evaluate the importance and use of reliable named information sources in the management of plant collections in heritage gardens.

**15 marks**

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Evaluate the importance and use of reliable named information sources in the management of plant collections in heritage gardens.

**15 marks**

Total Mark

**Question C2**

Evaluate the importance and use of reliable named information sources in the management of plant collections in heritage gardens.

**15 marks**

Candidate name	Candidate number	Centre name
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Candidate name	Candidate number	Centre name
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Candidate name	Candidate number	Centre name
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**Question C3**

Discuss how 'Spirit of the Age' influenced the development of the English Landscape Garden style.

**15 marks**

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**15 marks**

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**15 marks**

Total Mark

**Question C3**

Discuss how 'Spirit of the Age' influenced the development of the English Landscape Garden style.

**15 marks**

Candidate name	Candidate number	Centre name
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**Question C4**

A design has been carried out for a garden. A planting plan, specifying both plants and quantities has been supplied to you.

Discuss the other key factors that should be considered when specifying for the supply of plants from nurseries and suppliers.

**15 marks**

Discuss the other key factors that should be considered when specifying for the supply of plants from nurseries and suppliers.

Total Mark

Centre name







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Centre name

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