



RHS use only			
A	B	C	Total

RHS Level 2 Certificate in Plant Growth and Development

UNIT 1

Monday 13th October 2025

09:30 - 11:30

Candidate Name:

Candidate Number:

Centre Name:

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:

- The duration of this paper is **120** minutes.
- Write all answers legibly in the spaces provided and use black or blue ink only.
- Use **METRIC** measurements only.
- Where plant names are required, they should include genus, species and where appropriate, cultivar.
- Where a question requires a specific number of answers, only the first answers given will be marked regardless of the number of answers offered.
- Please note, when the word '**distinct**' is used within a question, it means that the items have different characteristics or features.

Excluding Examiner Comments

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RHS Level 2 Certificate in Plant Growth and Development - 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:



Question	Answer			
	A	B	C	D
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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"/>

Candidate name

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Centre name

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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

What is situated in the centre of the stem of a woody perennial?

- a) Dead phloem cells
- b) Dead epidermal cells
- c) Dead xylem cells
- d) Dead cambium cells

Question 2

Which of the following statements correctly defines osmosis?

- a) Water moves from a higher concentration to a lower concentration through the cell wall
- b) Water moves from a lower concentration to a higher concentration through the Casparian Strip
- c) Water moves from a lower concentration to a higher concentration through a semi-permeable membrane
- d) Water moves from a higher concentration to a lower concentration through a semi-permeable membrane

Question 3

One of the lists below contains only inflorescence types.
Which is it?

- a) Pedicel, rhizome, calyx, spathe
- b) Peduncle, carpel, spore, radicle
- c) Panicle, umbel, spike, raceme
- d) Pome, rosette, cuticle, style

Question 4

Which of these statements correctly describes pollination?

- a) Pollen from an anther is moved to the stigma
- b) Pollen from a style is moved to the stigma
- c) Pollen from a calyx is moved to the stigma
- d) Pollen from a filament is moved to the stigma

Question 5

The legislation which governs the control of weeds is called?

- a) Hazardous Waste (England and Wales) Regulations
- b) The Weeds Act
- c) The Agriculture and Horticulture Act
- d) The Clean Neighbourhoods and Environment Act

Candidate name

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Question 6

What is the main purpose of a UK Plant Passport?

- a) To show that a plant is native to the United Kingdom
- b) To record the price and origin of imported flowers and plants
- c) To ensure traceability of plants through the supply chain
- d) To allow plants to be sold at public markets and events

Question 7

What do we call the mix of different-sized mineral particles in a soil?

- a) Texture
- b) Structure
- c) Rhizosphere
- d) Flocculation

Question 8

What does 'hardiness' mean when referring to plants?

- a) The plant can live without much water
- b) The plant can resist being eaten by pests
- c) The plant can recover after being moved
- d) The plant can survive cold weather

Question 9

What is the most effective way to manage abiotic disorders?

- a) Garden health plans
- b) Integrated pest management
- c) Application of biological control
- d) Safety data sheets

Question 10

When planting trees, a New Zealand (or notched board) is used to:

- a) Prevent root rock
- b) Correctly position plants
- c) Reduce soil compaction
- d) Increase wire tension

Question 11

What term is used to describe the likelihood that an injury might happen?

- a) Hazard
- b) Impact
- c) Risk
- d) Mitigation

Question 12

Which of the following is a carbon-related benefit of using a minimal cultivation approach?

- a) It converts carbon into oxygen for root respiration
- b) It causes carbon to evaporate from the soil
- c) It boosts photosynthesis by loosening the soil structure
- d) It avoids releasing stored carbon from the soil

Question 13

In a horticultural workplace, a part-time member of staff raises a formal complaint about unsafe working conditions. Following this, they are given fewer hours. This behaviour is an example of:

- a) Harassment
- b) Discrimination
- c) Victimisation
- d) All of the above

Question 14

Which of the following terms best describes dissolved fertilisers being washed out of the soil, especially after heavy rainfall or excessive irrigation?

- a) Leaching
- b) Volatilising
- c) Solidifying
- d) Binding

Question 15

Why is placing organic matter in the bottom of a planting hole generally not recommended?

- a) It can make the soil acidic
- b) It results in the plant sinking
- c) It causes nutrient imbalances
- d) It encourages shallow rooting

Question 16



The above safety sign is a:

- a) Prohibiting sign
- b) Hazard warning sign
- c) Mandatory sign
- d) Information sign

Question 17

Which statement best completes the sentence below?

A packet of F_2 hybrid seeds:

- a) Will not have guaranteed characteristics
- b) Are certified to be free of genetic variation
- c) Are produced by tissue culture in laboratories
- d) Will perform the same as F_1 hybrid seed

Question 18

Which of the following statements is correct?

Aerobic respiration:

- a) Converts carbon dioxide and water into sugar and oxygen
- b) Converts carbon dioxide and water into ethanol and energy
- c) Converts carbohydrate into energy, ethanol and carbon dioxide
- d) Converts sugar and oxygen into energy, carbon dioxide and water

Question 19

Eudicotyledonous plants typically have:

- a) Fibrous roots and branched veins within leaves
- b) Tap roots and parallel veins within leaves
- c) Tap roots and branched veins within leaves
- d) Fibrous roots and parallel veins within leaves

Question 20

An open soil structure refers to a soil that has large spaces between soil particles.

This structure will:

- a) Increase respiration and decrease drainage within soil
- b) Increase respiration and increase drainage within soil
- c) Decrease respiration and increase drainage within soil
- d) Decrease respiration and decrease drainage within soil

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 (8 marks)

Define the term 'Law of Limiting Factors'.

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Explain **TWO** distinct ways that the Law of Limiting Factors can affect photosynthesis.

Explanation 1

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Explanation 2

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How can the law of limiting factors help horticulturists manage plants more sustainably?

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MARKS

2

2

2

2

Total Mark

Candidate name

Candidate number

Centre name

Question 2 (8 marks)

MARKS

Define the term 'ephemeral plant'.

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2

Name **TWO** distinct ephemeral plants.

Plant 1

1

Plant 2

1

Explain **ONE** advantage ephemeral plants provide to wildlife within a garden.

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2

Explain **ONE** advantage ephemeral plants provide to soil.

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2

Total Mark

Candidate name

Candidate number

Centre name

Question 3 (7 marks)

MARKS

Explain **ONE** reason why fungal diseases spread more easily when plants are overcrowded?

2

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Explain **ONE** action, **other than increasing plant spacing**, that can reduce the spread of fungal diseases in plantings.

2

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State **THREE** ways in which climate change may increase the spread of fungal diseases.

Answer 1

1

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Answer 2

1

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Answer 3

1

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Total Mark

Candidate name

Candidate number

Centre name

Question 4 (7 marks)

Describe **ONE** way in which direct sunlight can damage plants.

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2

Name **ONE** plant which is damaged by direct sunlight.

Name:

1

State **ONE** method of reducing the intensity of sunlight within a horticultural setting.

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1

Describe **ONE** way in which wind can negatively impact on photosynthesis.

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2

State **ONE** method of protecting plants from wind damage.

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1

Total Mark

Candidate name

Candidate number

Centre name

Question 5 (8 marks)

State **TWO** characteristics of seed compost.

Characteristic 1:

1

Characteristic 2:

1

Explain how **ONE** of these characteristics supports plant growth.

Characteristic:

Explanation:

2

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Describe **TWO** differences between potting composts and seed composts.

Difference 1

2

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Difference 2

2

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Total Mark

Candidate name

Candidate number

Centre name

MARKS

Question 6 (6 marks)

Explain **TWO** reasons why purchasing bare root plants is more sustainable than purchasing rootballed plants.

Reason 1

2

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Reason 2

2

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Explain **ONE** limitation of purchasing bare root plants.

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2

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Total Mark

Candidate name

Candidate number

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		MARKS
Question 7 (6 marks)		
Name ONE nutrient which becomes limited at a high pH.		
Name		1
State ONE function this nutrient performs within plants.		
Function		1
Describe ONE deficiency symptom of this nutrient.		
.....		2
.....		
.....		
Name TWO distinct plants which thrive at a low pH.		
Plant 1		1
Plant 2		1

Total Mark

Candidate name

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End of section B.

Please continue to Section C.

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

Candidate number

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Question C1

Plant catalogues often use words like Rosaceae and maritima.

Explain how a knowledge of plant nomenclature can help you choose the right plants for your garden.

15 marks

Total Mark

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Question C2

Explain how horticulturists manage pests in a sustainable way without using chemical pesticides.

15 marks

Total Mark

Candidate name

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Question C3

When establishing new plantings, it is important to follow Best Practice when irrigating.

Explain the effects of correct and incorrect irrigation practices on newly planted stock.

15 marks

Total Mark

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Candidate number

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Question C4

Discuss the main alternatives to synthetic fertilisers and explain how each can be used to support sustainable plant management.

In your answer, discuss the main advantages and disadvantages of each alternative.

15 marks

Total Mark

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The Royal Horticultural Society, Wisley, Woking, Surrey GU23 6QB.
Charity Registration Number: 222879/SC038262

