



RHS use only			
A	B	C	Total

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

UNIT 2

Thursday 17 October 2024

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

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**RHS Level 3 Certificate – Principles of Plant Growth, Garden Planning
and Applied Propagation
UNIT 2**

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	B	C	D
X		X	

Question	Answer			
	A	B	C	D
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19	<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

Best Practice is a concept based on:

- a) tradition, context and publication
- b) research, evaluation and implementation
- c) compliance, review and reflection
- d) feedback, evaluation and context.

Question 2

The Health and Safety Executive website contains the following statement relating to the management of risk:

'Put the controls you have identified in place. You're not expected to eliminate all risks but you need to do everything 'reasonably practicable' to protect people from harm.'

What does 'reasonably practicable' mean?

- a) Balancing the level of risk against the measures needed to control the real risk in terms of money, time or trouble.
- b) Balancing the range of hazards against the measures needed to control the hazard in terms of money, time or trouble.
- c) Balancing the level of risk against the measures needed to control the real risk in terms of recruitment, appraisal and company strategy.
- d) Balancing the level of hazard against the measures needed to control the real hazard in terms of recruitment, appraisal and company strategy.

Question 3

A supervisor decides to change the working hours of their team to ensure that all their staff should be on site from 1.00 p.m. to 4.00 p.m. when the garden has the peak number of visitors.

A member of their team has a regular hospital appointment every Thursday afternoon and has to leave work at 3.00pm.

The supervisor's decision is a case of:

- a) direct discrimination
- b) indirect discrimination
- c) direct victimisation
- d) Indirect victimisation.

Question 4

A garden is appointing a garden design practice to develop a new area.

“”

One of the practices claims: *“We have worked hard to create a totally inclusive culture, which impacts on our work in almost every area of our business.”*

Which of the following describes how such an inclusive culture would benefit the garden?

- a) Garden design staff are all creative, and so this is simply a marketing statement.
- b) Inclusive cultures employ a diverse range of staff who are more likely to disagree.
- c) Garden design staff in large practices never meet the client and so this is not relevant.
- d) Inclusive cultures increase creativity which should be reflected in the design proposal.

Question 5

Which of the statements below correctly completes the following sentence:

Within sustainable horticulture it has long been recognised that monocultures used in vegetable production can _____ compared to crop rotation.

- a) reduce soil erosion.
- b) reduce pesticide usage.
- c) cause leachate retention.
- d) cause soil degradation.

Question 6

Climate change is resulting in high levels of rainfall over short periods of time.

To combat this, the installation of permeable surfaces suitable for front gardens is seen as best practice.

With reference to the above points, which of the following statements is **poor** advice?

- a) Install gravel or a mainly green, vegetated area.
- b) Direct water from an impermeable surface to a bordering rain garden or swale.
- c) Direct water from an impermeable surface towards an existing drainage system.
- d) Use permeable block paving, porous asphalt or gravel.

Question 7



Image credit: James Robert Pulham 'The Wisley Rock and Water Garden' (London RHS 1912)

Which **TWO** of the following options are the most important health and safety impact considerations when managing heritage rock gardens?

- 1. Drowning risk for small children in unfenced water.
 - 2. Algal growth on the rock face, creating slip hazards.
 - 3. The weight of snow affecting rock stability in winter.
 - 4. The risk of trips and falls on uneven paths and steps.
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- a) 1 and 3
 - b) 2 and 3
 - c) 2 and 4
 - d) 1 and 4

Question 8

Complete the following definition of Prairie Gardens:

Prairie Gardens are plantings that consist not only of _____ but many other combinations of plants that require the same growing conditions.

- a) South American grasses and flowering perennials
- b) North American grasses and flowering perennials
- c) North European bulbs and flowering perennials
- d) South European sub shrubs and flowering perennials

Question 9

Which **TWO** of the following options define Ecological plantings?

- 1. Intense flower colour for 9 months of the year.
- 2. Continuous interest from foliage, flower and senescent plants.
- 3. Use of plant species rather than hybridised or highly bred plants.
- 4. Need for regular organic mulches to improve soil to support plants.

- a) 1 and 2
- b) 2 and 3
- c) 2 and 4
- d) 1 and 4

Question 10

The website promoting this system of productive growing defines it as:

“Saving gardeners’ time, effort, tools, space and water. It is estimated to cost 50% less, uses 20% less space, 10% of the water, and only 2% of the work compared to traditional gardening. Additional benefits are: virtually no weeds, no digging or rotavating, no fertilisers, and no heavy tools are necessary.”

Which growing system is being described?

- a) Raised beds.
- b) Minimal cultivation.
- c) Square foot gardening.
- d) Certified organic production.

Question 11

Hot foam is a novel system of weed control that is growing in popularity.

The hot foam is made from:

- a) plant oils and sugars
- b) polymers and surfactants
- c) phenols and surfactants
- d) formaldehyde and sugars.

Question 12

This research and development organisation is currently researching LED lighting of crops, deep-water hydroponics and carries out trials for **Gardening Which?**



The organisation is:

- a) Stockbridge Technology Centre
- b) Bridgewater Technology Centre
- c) Dexter Technology Centre
- d) Rosemoor Technology Centre

Question 13

Horticultural supervisors and team leaders are often required to appraise team members.

Which **TWO** of the following considerations should be included in appraisals?

1. Communication and teamworking.
2. Quality of work and accountability.
3. Disciplinary record and performance.
4. Pay increases and bonuses.

- a) 1 and 3
- b) 2 and 3
- c) 2 and 4
- d) 1 and 2

Question 14

ACAS aims to make working life better for everyone in Britain.

It offers horticultural employers and employees free impartial advice on employment issues.

What does the acronym 'ACAS' stand for?

- a) Advisory, Corporate Arbitration Service
- b) Advisory, Conciliation and Arbitration Service
- c) Advisory, Conciliation and Assistance Service
- d) Advisory, Communication and Arbitration Service

Question 15

At a recent garden conference, the term 'hierarchy of paths' was used in a discussion on the use of path widths within gardens.

This technique is most frequently used to:

- a) interpret the heritage of a garden
- b) draw the eye in the creation of vistas
- c) manage wildlife corridors within a garden
- d) manage the flow of visitors through a garden.

Question 16

Which of the following is least relevant to a community engagement plan?

- a) Who to engage.
- b) Impact measurement.
- c) The main stakeholders.
- d) Methods of engagement.

Question 17

Many gardens engage with their local communities through the use of social media.

Which **TWO** of the statements below most closely describe the positive role of social media in community engagement?

1. Social media reaches a wide audience.
2. Regular posts can maintain interest in the garden.
3. Social media reduces social isolation.
4. Effective posts can develop Best Practice.

- a) 1 and 3
- b) 3 and 4
- c) 2 and 4
- d) 1 and 2

Question 18

Which of the following statements correctly completes the definition of a sensory garden?

Choose plants _____ leaves, berries, seeds, bark, twigs.

- a) with interesting textures in their flowers
- b) which are easy to propagate by
- c) which are soft and gentle, with flowing
- d) with interesting heritage value, to include

Question 19

Which of the following is **NOT** a direct benefit of gathering feedback from garden visitors?

- a) Improved visitor loyalty.
- b) Improved supplier relationships.
- c) Improved staff morale.
- d) Improved café and toilet facilities.

Question 20

Which of the following statements is an example of informal feedback received by a garden?

- a) Feedback from Award Schemes, for example Green Flag.
- b) The use of visitor surveys, both written and online.
- c) An evaluation of letters of complaint received by the garden.
- d) Writing down complaints overheard in the café.

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)

State **FOUR** advantages of certified organic production when compared to traditional growing systems used in horticulture.

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MARKS

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Total Mark

Question 2 (8 marks)

MARKS

Describe **FOUR** ways that garden areas can be designed to promote social inclusion.

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Total Mark

Question 3 (8 marks)

MARKS

This question relates to the management of trees in gardens and designed landscapes.

An arboriculturist has advised pollarding of trees in an avenue, and crown raising of other mature trees in a garden.

A garden volunteer has asked what these terms mean.

a) Explain the terms:

i) Pollarding

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ii) Crown raising

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b) With reference to climate change, explain why arborists recommend these procedures for trees in gardens and designed landscapes?

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Total Mark

Excluding Examiners Comments

MARKS

Question 4 (5 marks)

This question relates to sustainable garden management.

“One hour of operation of a petrol lawn mower has recently been shown to produce the equivalent emissions to driving 93 miles in a small car.”

Morgan and Stoddard 2019

a) Name **THREE** alternative sources of power for pedestrian garden equipment.

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b) Select and justify the most sustainable option from those named in a).

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Total Mark

Excluding Examiners Comments

MARKS

Question 5 (6 marks)

A donor has given a sum of money to develop a new wellness garden adjacent to a productive garden, which is run on organic principles.

You have been asked to develop the plans for this new wellness garden area, ensuring the design fits in with the overall management plan for the site.

State the checks that should be made to ensure this new area fully complies with the management plan.

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Total Mark

Question 6 (7 marks)

Read the following information and then answer the questions that follow.

Scenario and background information

To limit the spread of fungal pathogens, the horticultural disinfectant *Propellar* is being used by a propagation unit. A manager has reviewed the Safety Data Sheet and has reported the following information. Full details are kept in the COSHH folder.

The Safety Data Sheet for *Propellar* shows the supplier as Evans Chemical Supplies, of 18B, Barncoose Industrial Estate, Redruth, Cornwall, TR15 3RQ. The emergency telephone number is 01209 213643. The CHIP classification is F: R11; Xi: R36; -: R67. The adverse effects are that the product is highly flammable and irritating to eyes. Vapour of the product can cause drowsiness and dizziness.

The key safety phrases are:

- S2: keep out of reach of children
- S23: do not breathe vapour
- S9: keep container in a well-ventilated place
- S16: keep away from sources of ignition – no smoking
- S24/25: avoid contact with skin and eyes
- S26: in case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- S37/39: wear suitable gloves and eye/face protection
- S46: if swallowed, seek medical advice immediately and show the container or label.

In case of skin contact: remove all contaminated clothes and footwear immediately unless stuck to the skin. Wash immediately with plenty of soap and water. For eye contact: bathe the eye with running water for 15 minutes and consult a doctor. If ingested: wash out mouth with water. Consult a doctor. Inhalation: remove casualty from exposure, ensuring one's own safety while doing so. Consult a doctor.

a) What does the acronym COSHH stand for?

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b) State **THREE** storage considerations for this product.

3

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Total Mark

Question 6 (continued)

MARKS

c) What action should be taken if the product is spilt onto clothing.

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d) Name **TWO** pieces of PPE a user should wear.

2

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Total Mark

Question 7 (6 marks)

MARKS

“The problem with allotments is you either have nothing to eat, or truck loads of courgettes.”

How would you ensure your allotment is able to produce a continuity of supply throughout the year?

6

Justify your answer.

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Total Mark

Question 8 (6 marks)

“Too many horticulturists focus on plant selection or permeable hard landscaping when making gardens more resilient to climate change. What a shame they never consider the wider role that hard landscape materials can have in this area.”

With reference to the above quotation, explain how paved areas can be developed to make gardens more climate resilient.

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End of section B.
Please continue to Section C.

Total Mark

Section C

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

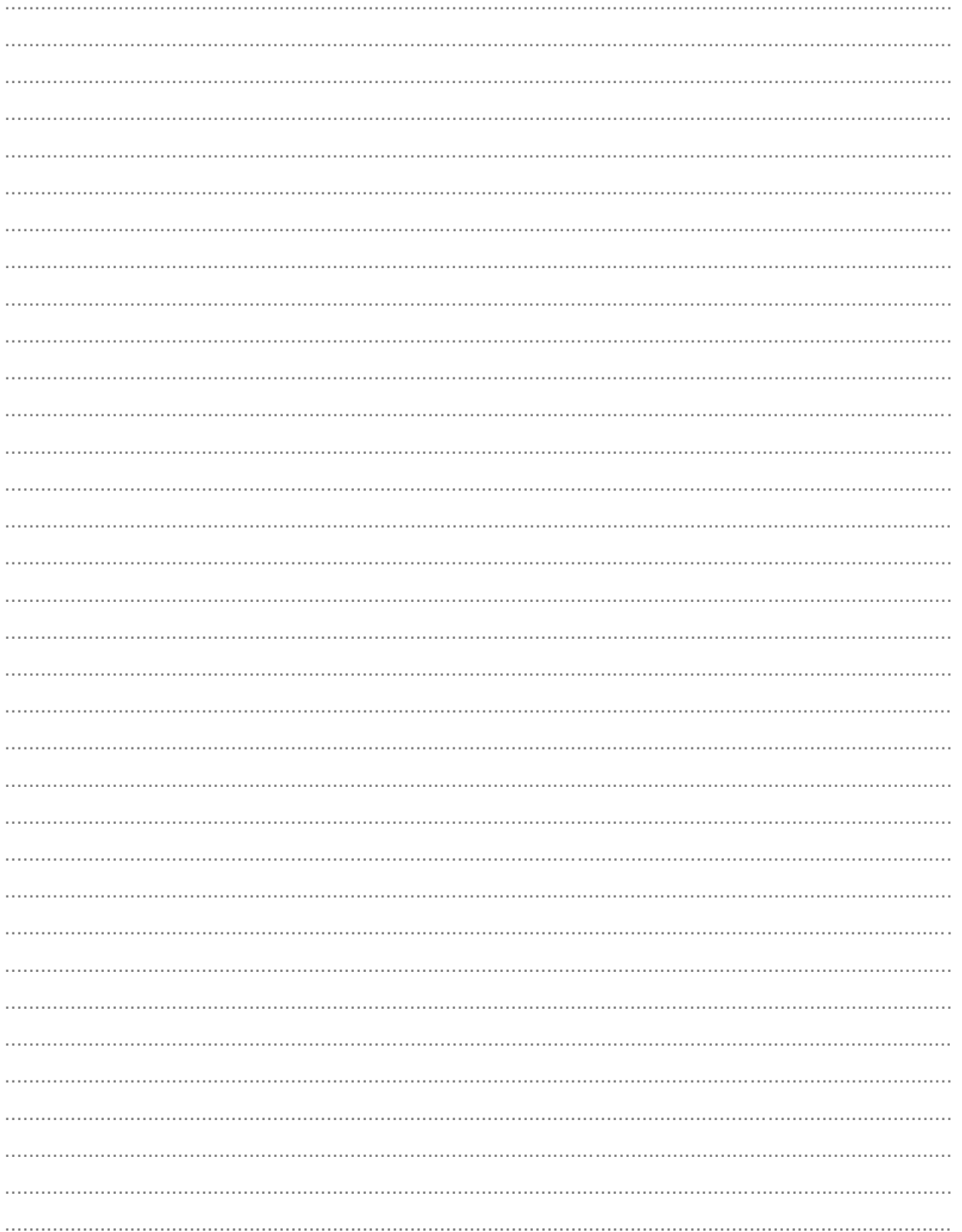
Please write your answers on the following pages.

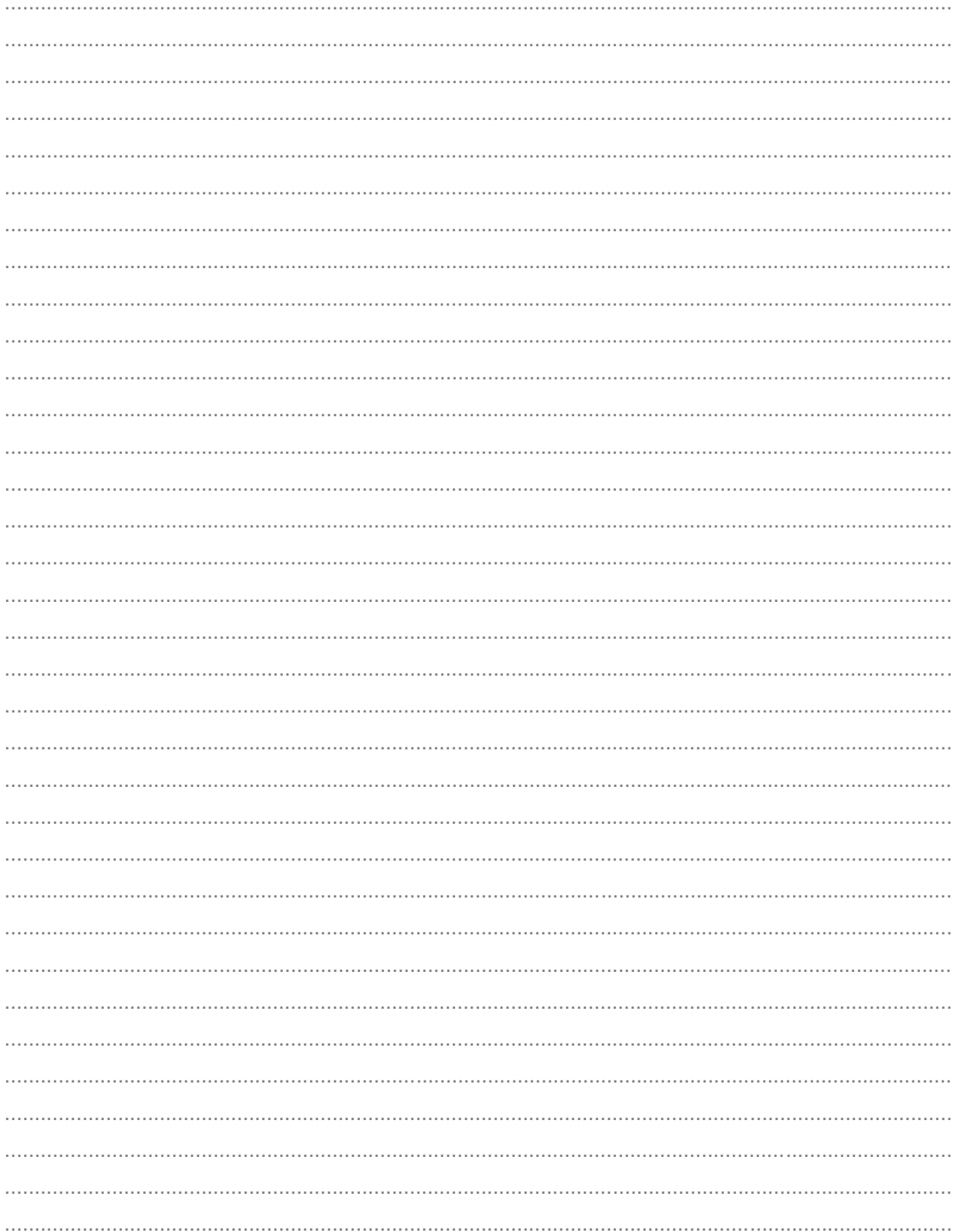
Each question is worth 15 marks. This section is worth 30 marks.

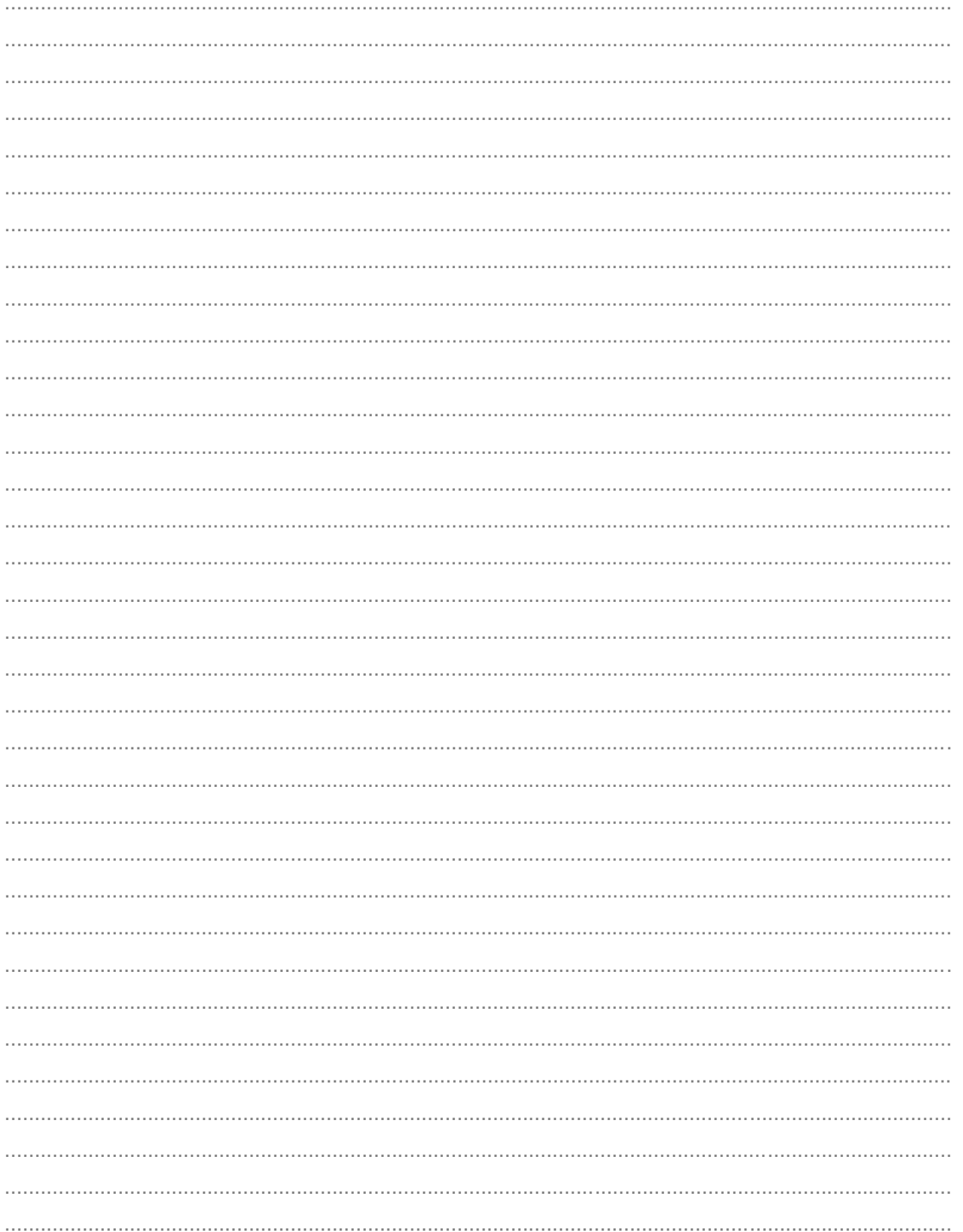
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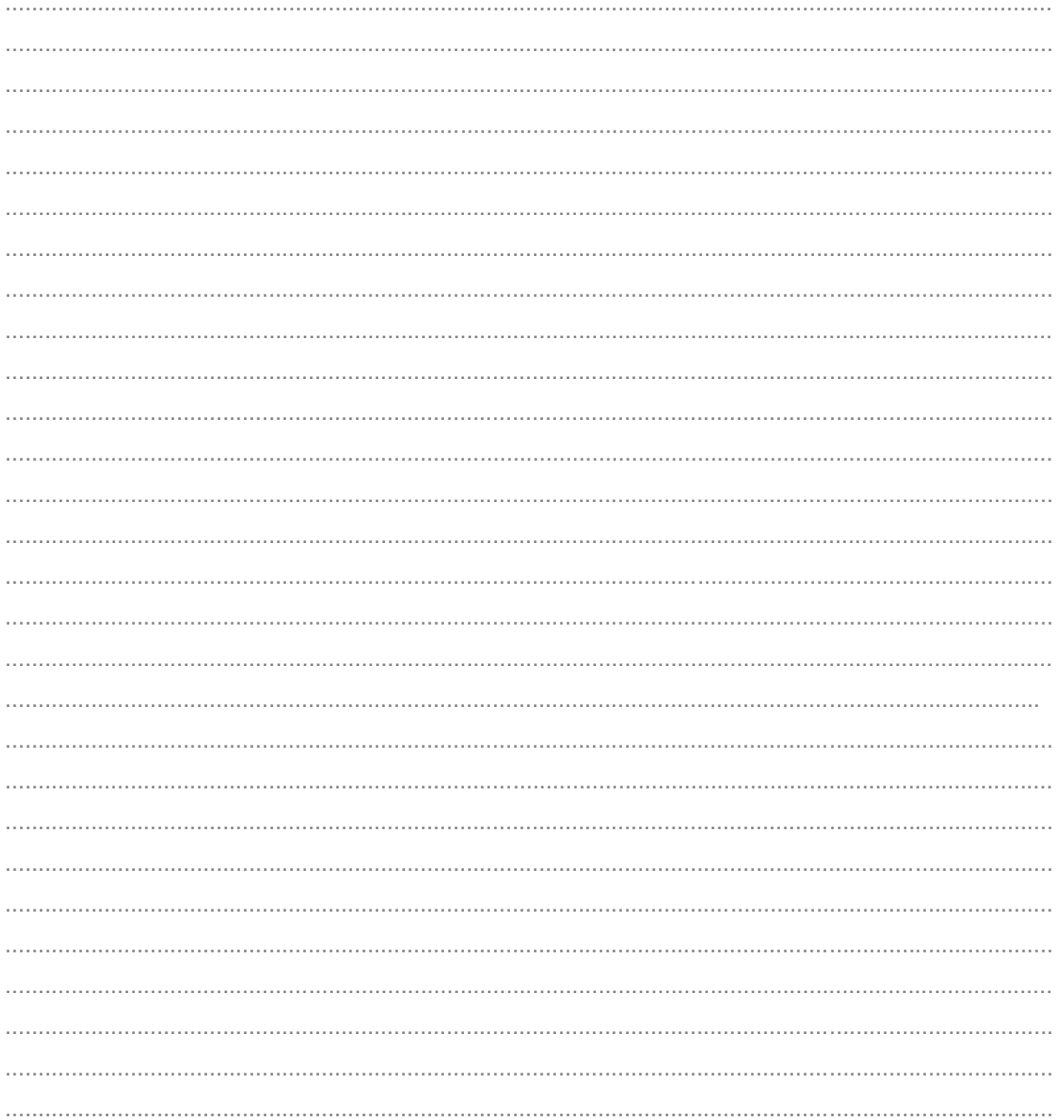
You **MUST** indicate which question you are answering by placing a cross in the appropriate box on the FRONT of this exam paper.

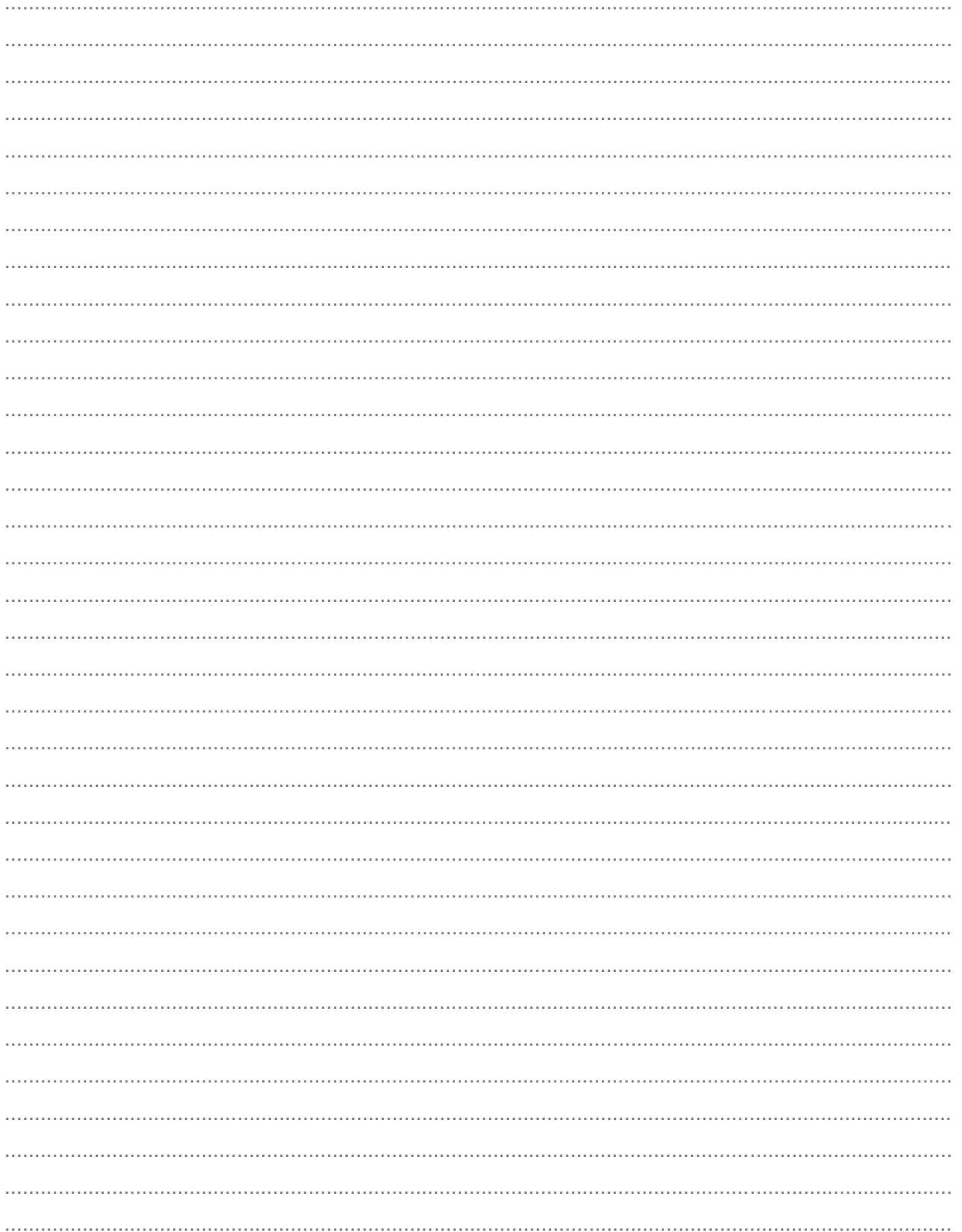
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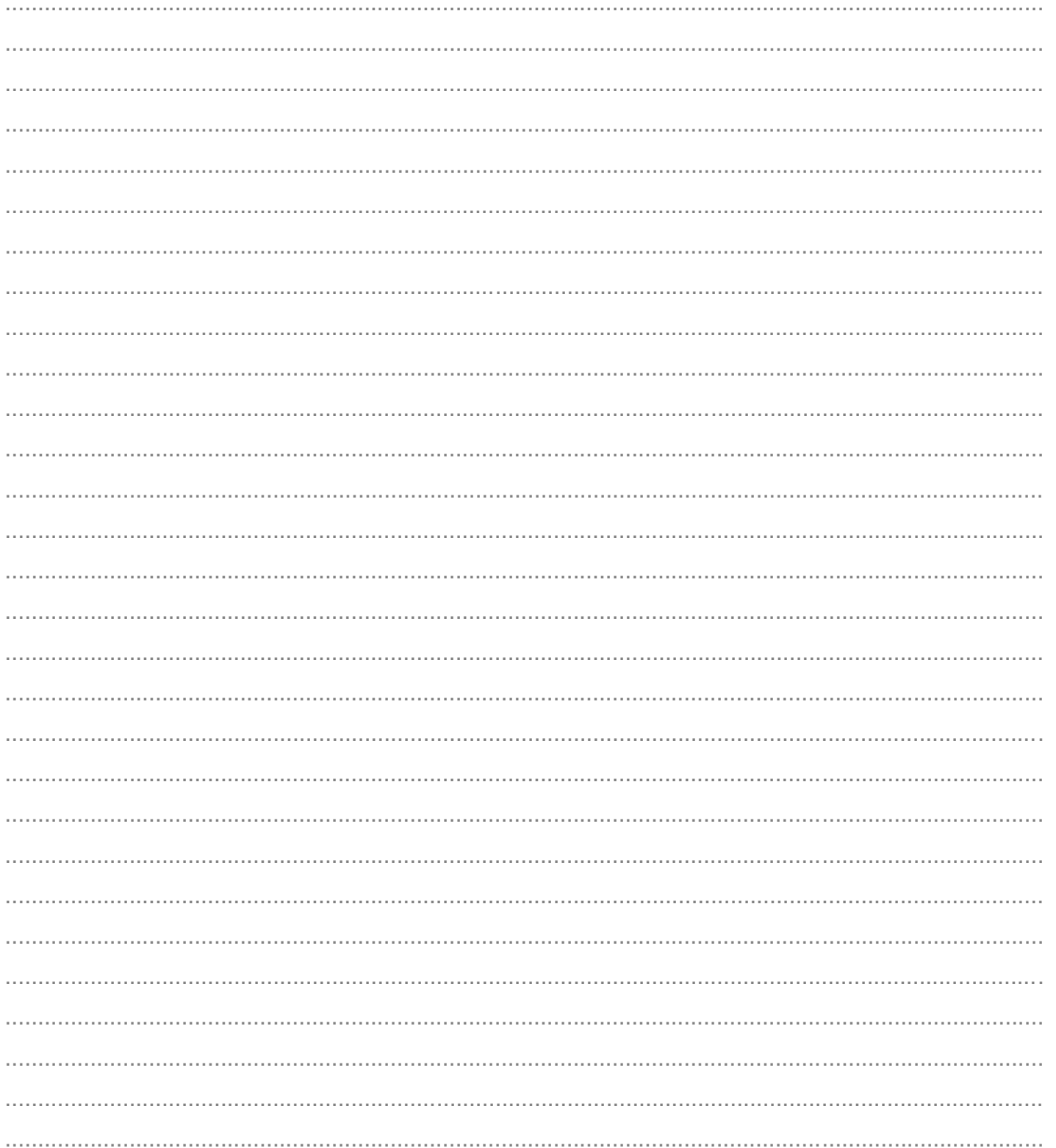












Excluding Examiners Comments

Question C4

A group of gardens have met to benchmark and establish best practice on pre-visit information.

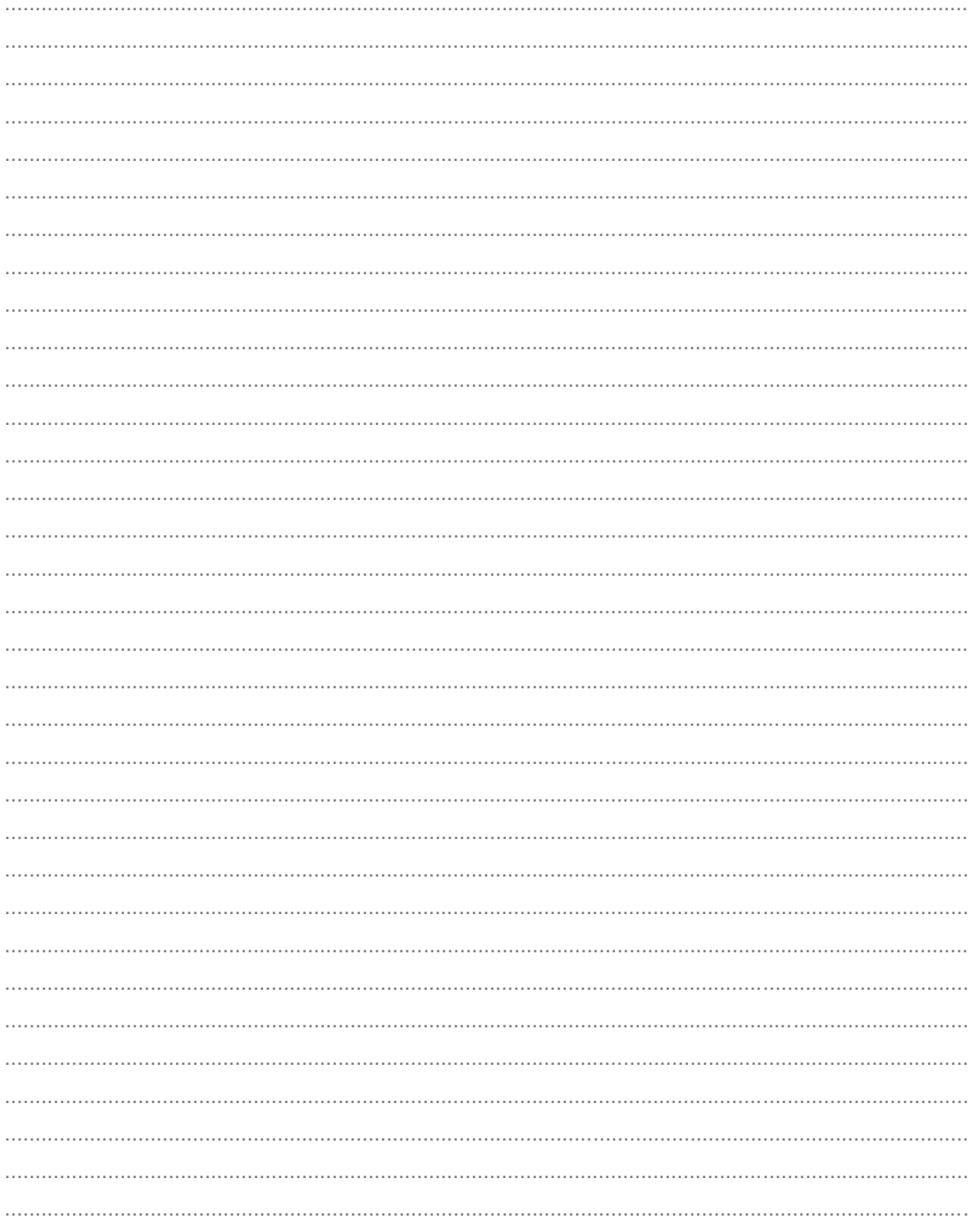
Explain what pre-visit information should be available to the public on the website of a large public garden.

How can the effectiveness of pre-visit information be evaluated?

15 marks

Total Mark

Dotted lines for writing the answer.



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