



Sharing the best in Gardening

R2102

PLANT NUTRITION AND THE ROOT ENVIRONMENT

Level 2

Monday 11 February 2013

11:00 – 11:40

Written Examination

Candidate Number:

Candidate Name:

Centre Number/Name:

IMPORTANT – Please read carefully before commencing.

- i) The duration of this paper is **40** 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) Where plant names are required, they should include genus, species and where appropriate, cultivar.
- vii) 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.
- viii) 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 **FOUR** ways by which the use of irrigation can affect the environment in a garden situation.

4

b) Explain **THREE** different methods of improving the water content in the soil for plant use, other than the use of irrigation.

6

Total Mark

Please see over/.....

MARKS

Q3 a) Name **TWO** garden situations where poor drainage may occur.

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b) State **TWO** reasons why the correct balance between air and water is essential for the healthy growth of plants.

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c) Describe **TWO** ways by which garden drainage systems can impact on the environment.

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Total Mark

Please see over/.....

Q4 a) State **TWO** sources of organic matter in a soil.

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b) Describe **TWO** beneficial effects of organic matter in the soil.

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c) Describe **TWO** limitations of organic matter in the soil.

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Total Mark

Q6 a) State **TWO** examples of **EACH** of the following types of fertiliser:

- i) straight;
- ii) compound.

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b) List the major nutrients provided by a compound fertiliser.

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c) State **ONE** situation where **EACH** of the following types of fertiliser application would be appropriate:

- i) top dressing;
- ii) liquid feed;
- iii) foliar feed.

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Total Mark

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