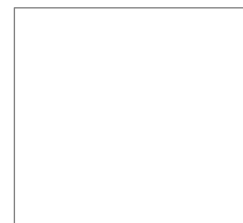




Sharing the best in Gardening



R2101

PLANT CLASSIFICATION, STRUCTURE AND FUNCTION

Level 2

Monday 11 February 2013

09:30 – 10:30

Written Examination

Candidate Number:

Candidate Name:

Centre Number/Name:

IMPORTANT – Please read carefully before commencing.

- i) The duration of this paper is **60** 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) Give **ONE NAMED** plant example of **EACH** of the following:

- i) a monocotyledon;
- ii) a dicotyledon.

1
1

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b) List **TWO** differences between monocotyledonous and dicotyledonous leaves.

4

Monocotyledon	Dicotyledon
1.	1.
2.	2.

c) List **TWO** differences between monocotyledonous and dicotyledonous stems.

4

Monocotyledon	Dicotyledon
1.	1.
2.	2.

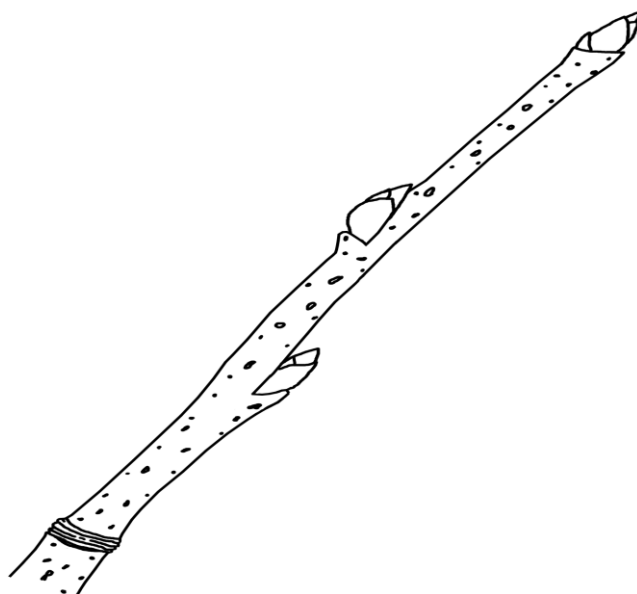
Total Mark

Please see over/.....

Q2 a) Label **EACH** of the following features on the diagram provided:

- i) apical bud;
- ii) lenticel;
- iii) axillary bud;
- iv) internode;
- v) node;
- vi) girdle scar.

6



External features of a woody dicotyledonous stem

b) State **TWO** different functions of the stem shown in the diagram above.

2

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c) **NAME** the type of leaf arrangement on the stem shown in the diagram above, giving **ONE NAMED** plant example with this type of arrangement.

2

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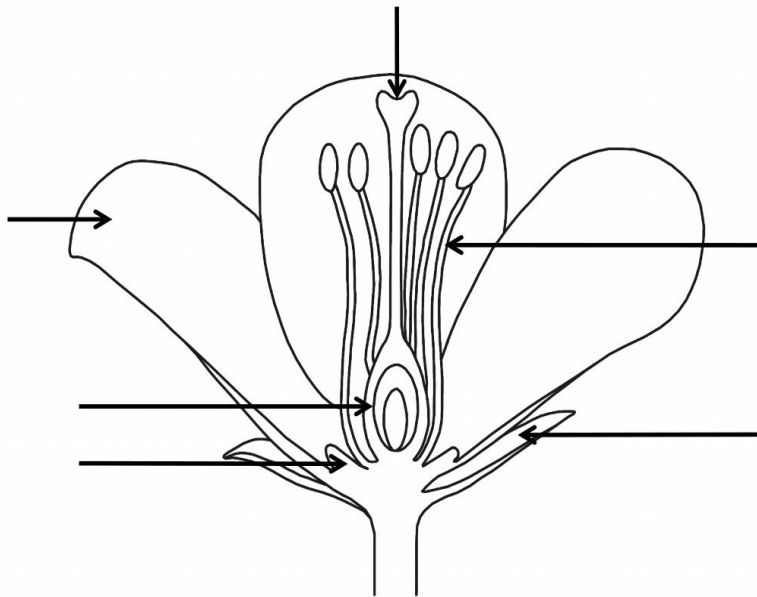
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Total Mark

Please turn over/.....

Q4 a) Name the flower parts indicated on the diagram below.

6



b) State what is meant by the following terms:

- i) calyx;
- ii) corolla.

1
1

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c) State **ONE** function for **EACH** of the terms listed in b).

2

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Total Mark

Please turn over/.....

Q5 a) State what is meant by the following terms giving **ONE NAMED** plant example for **EACH**:

- i) ephemeral;
- ii) biennial;
- iii) perennial.

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b) State the difference between tender and hardy annuals giving **ONE NAMED** plant example for **EACH**.

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Total Mark

Please see over/.....

- Q6** a) Draw a fully labelled diagram to show the internal features of a **NAMED** dicotyledonous seed in the space below.

6

Name of seed

Diagram of the internal features of a dicotyledonous seed

- b) Distinguish between epigeal and hypogeal germination giving a **NAMED** plant example of **EACH**.

4

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Total Mark

Please turn over/.....

Q8 a) Name **TWO** distinct meristematic tissues.

2

b) State where the tissues named in a) are located in the plant.

4

c) List **FOUR** tissues found in plants (other than meristematic tissues).

4

Total Mark

Please turn over/.....

Q10 a) State **TWO** reasons why plant parts may be adapted for climbing.

2

b) Describe **TWO** different methods used by plants for climbing.

8

Total Mark

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