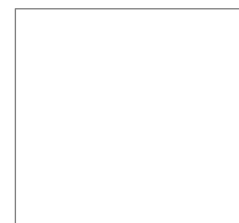




Excluding examiner comments



**R2104**

**UNDERSTANDING PLANT PROPAGATION**

**Level 2**

**Monday 5 February 2024**

**15:20 – 16:10**

**Written Examination**

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

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

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

**IMPORTANT – Please read carefully before commencing:**

- i) The duration of this paper is **50** minutes;
- ii) **ALL** questions should be attempted;
- iii) **EACH** question carries **10 marks**;
- iv) Write your answers legibly in the spaces provided. It is **NOT** necessary that all lined space is used in answering the questions;
- v) Use **METRIC** measurements only;
- vi) Use black or blue ink only. Pencil can be used for drawing purposes only. Ensure that all diagrams are labelled accurately with the line touching the named object;
- vii) Where plant names are required, they should include genus, species and where appropriate, cultivar;
- viii) 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;
- ix) 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 **TWO** distinct benefits and **TWO** distinct limitations of **EACH** of the following methods of plant propagation:

- i) seed
- ii) vegetative

by completing the table below.

	Seed	Vegetative
<b>Benefit 1</b>		
<b>Benefit 2</b>		
<b>Limitation 1</b>		
<b>Limitation 2</b>		

**2**

**2**

**2**

**2**

**b)** Name **TWO** distinct plants that produce orthodox (dry) seeds.

**2**

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Total Mark
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**Please see over/.....**

**MARKS**

**4**

**Q2 a)** Describe how to prepare an outdoor seedbed.  
(Secondary cultivation only)

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**b)** Name **ONE** vegetable plant which produces large seeds that can be direct sown in open ground.

**1**

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**c)** Describe how to sow the seed named in b) in open ground.

**5**

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Total Mark
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**Please turn over/.....**

**MARKS**

**Q3 a)** Explain what is meant by the following terms by completing the table below:

Term	Meaning
<b>A clone</b>	
<b>Juvenility</b>	
<b>Wounding</b>	
<b>Heel cutting</b>	

1

1

1

1

b) Name **ONE** plant that can be propagated by **EACH** of the following means:

- i) softwood cutting
- ii) deciduous hardwood cutting

1

1

i).....

ii).....

c) State **ONE** benefit and **ONE** limitation of each type of each type of cutting by completing the table below:

	Benefit	Limitation
<b>Softwood cutting</b>		
<b>Hardwood cutting</b>		

2

2

Total Mark
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Please see over/....

**MARKS**

**Q4 a)** Describe the characteristics of **TWO NAMED** bulky materials suitable for a growing media for vegetative propagation.

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**b)** State **FOUR** ways that water loss can be reduced when rooting softwood cuttings.

**4**

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Total Mark
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**Please turn over/.....**

**MARKS**

**Q5** Describe the propagation of *Streptocarpus* sp. by leaf lamina cuttings under **EACH** of the following headings:

- i) preparation of the cuttings (not collection)
- ii) insertion of the cuttings and growing media
- iii) rooting environment

**3**  
**4**  
**3**

i) .....

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ii) .....

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iii) .....

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Total Mark
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Please see over/.....

**MARKS**

**Q6** Describe the propagation of **ONE** named conifer under **EACH** the following headings:

- i) time of year
- ii) preparation of cutting
- iii) insertion
- iv) suitable environment for rooting

1  
3  
3  
2

Named conifer .....

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i) .....  
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ii) .....  
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iv) .....  
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Total Mark

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