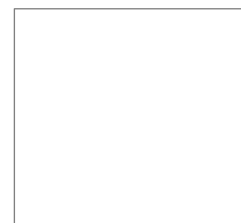




Excluding examiner comments



R2101

PLANT CLASSIFICATION, STRUCTURE & FUNCTION

Level 2

Monday 5 February 2024

09:00 – 10:20

Written Examination

Candidate Number:

Candidate Name:

Centre Name:

IMPORTANT – Please read carefully before commencing:

- i) The duration of this paper is **80** 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 what is meant by **EACH** of the following terms giving **TWO** distinct **NAMED** plant examples for **EACH**, by completing the table below:

	Genus	Species
Meaning of term		
Plant example 1		
Plant example 2		

4

2

2

b) State the meaning of the term cultivar giving **ONE NAMED** plant example.

2

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Total Mark

Please see over/.....

MARKS
2

Q2 a) State **ONE** difference between a tap root and a fibrous root.

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b) Describe **ONE** function for **EACH** of the following root features:

- i) root hair
- ii) apical meristem
- iii) endodermis
- iv) root cap

2
2
2
2

i).....
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ii).....
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iii).....
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iv).....
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Please turn over/.....

Total Mark

MARKS
1

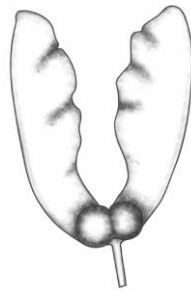
Q3 a) Name the part of the flower from which the fruit develops.

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b) Describe the dispersal of the mechanism for **EACH** of the fruits shown below giving **ONE** plant example for **EACH**.

9

Fruit X



Description of method of dispersal

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Plant example

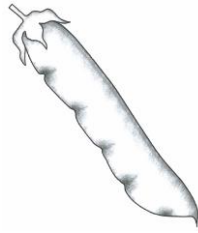
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Question continues on the opposite page

contd.

MARKS

Fruit Y



Description of method of dispersal

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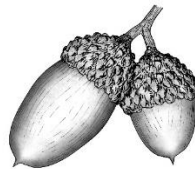
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Plant example

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Fruit Z



Description of method of dispersal

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Plant example

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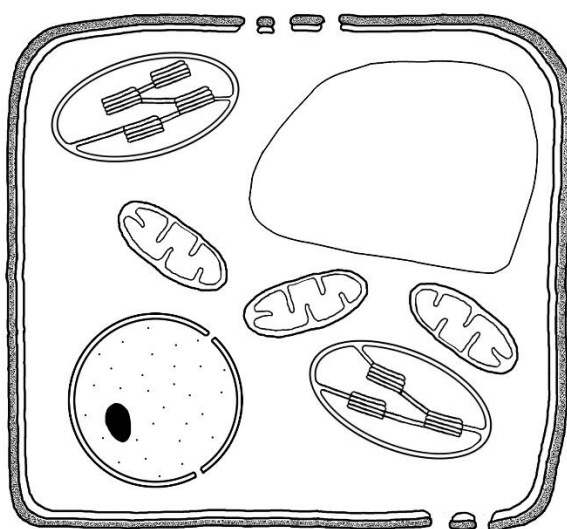
Total Mark

Please turn over.....

Q5 a) Label the following cell components in the diagram below:

- i) cell membrane
- ii) nucleus
- iii) cell wall
- iv) mitochondrion
- v) vacuole

Diagram of a plant cell



b) State **ONE** function for **EACH** of the cell components listed in a) above.

5

- i).....
.....
- ii).....
.....
- iii).....
.....
- iv).....
.....
- v).....
.....

Total Mark

Please turn over.....

Q8 a) State **ONE** function for **EACH** of the flower parts by completing the table below:

MARKS
4

Flower part	Function
Anther	
Petal	
Ovule	
Stigma	

b) State what is meant by the following terms:

- i) corolla
- ii) calyx

1
1

i).....
.....
ii).....
.....

c) State **TWO** differences between monocotyledonous and dicotyledonous flowers by completing the table below:

	Monocotyledonous flower	Dicotyledonous flower
Difference 1		
Difference 2		

2
2

Total Mark

Please see over.....

Q9 a) State what is meant by **EACH** of the following terms:

- i) leaf petiole
- ii) leaf lamina
- iii) leaf vein
- iv) leaf midrib

MARKS

1
1
1
1

i).....
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ii).....
.....

iii).....
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iv).....
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b) State where **EACH** of the following tissues are found in a dicotyledonous leaf:

- i) epidermis
- ii) phloem

1
1

i).....
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ii).....
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c) State **TWO** characteristics and **TWO** functions of the epidermis in a dicotyledonous leaf.

4

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Total Mark

Please turn over.....

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